

**Industrial Development and Environmental Management
Practices in Sreepur Municipality, Gazipur.**

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A thesis submitted in partial fulfillment of the requirement for the

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Dedicate to my
beloved parents for
their continuous
encouragement and
intensive support to
complete the degree

ABSTRACT

Bangladesh is struggling to accommodate its massive population and increasing the national GDP for sustainable economic development. The country's population and labour force are growing rapidly every year, and it is impossible that the growing labor force can ever be absorbed in the agriculture sector only. Industrialization is a part of wider modernization process, where social change and economic development are closely related with technological innovation. Industry is the most potential sector to meet the huge demand of basic necessities, thus creating the employment opportunities. Consequently, industrial development has been encouraged by Industrial Policies of Bangladesh over the last decade across the country to increase national gross domestic product. As a result, industrial sector is taking the utmost place for urban growth with vast structural change to the built environment of local area in Bangladesh and very often causing serious threat to surrounding built environment due to unplanned and uncontrolled development. In fact, there is no alternative of industrial development in the Bangladesh for economic development. The sustainable urban development, environment-friendly industrial development is only obligatory measures to overcome the existing vulnerable situation of the built environment. Recently, a significant number of industries have been established in municipal area and major source of revenue earning for several municipalities is the industrial sector. On the other hand, conservation of safe and healthy environment for citizens is one of the major concerns of municipalities. Municipalities mainly provide 'NOC' as environmental clearance while setting industry in urban area considering environmental impact on surrounding areas. At present, environmental management practices in municipalities are the burning issue in Bangladesh. This study mainly focuses on the present environmental management practices while setting industry in a municipal area. Sreepur municipality which is largest one in Bangladesh has been selected as study area for this research. This study tried to figure out the actual role of Sreepur municipality in the process of 'NOC' providing while setting industry. Data have been collected from the 'NOC' register to classify the types and the spatial location of existing industries established during 2004 to 2009 in Sreepur municipality. Then, an investigation has been done on the submitted documents with the application form for getting 'NOC' from the Sreepur municipality to establish industry. Finally, direct interview of municipal staff was done in order to know the process of providing 'NOC' to know real strength, weakness

and opportunity of Sreepur municipality. This study reveals that the mechanism of 'NOC' providing is very weak regarding environmental management practices. According to the findings of the study, some recommendations have been given for improving the mechanism of 'NOC' process and strengthening the municipality accordingly. Following the recommendations of the study, Sreepur municipality will be able to take proper decision in the process of providing 'NOC' to the industries. From the outcomes, it is expected that the findings of this study will help to improve the relationship among concerned government agencies through better coordination to ensure the environment friendly industrial development in urban areas of our country.

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
ADP	Annual Development Program
ANNM	Average Nearest Neighbor Method
ANNA	Average Nearest Neighbor Method
BIP	Bangladesh Industrial Policy
BECA	Bangladesh Environment Conservation (Amendment) Act
BBS	Bangladesh Bureau of Statistics
BES	Bangladesh Economic Survey
BIDS	Bangladesh Institute of Development Studies
BOI	Board of Investment
CBO	Community Based Organization
CC	City Corporation
CPD	Centre for Policy Dialogue
CCSLO	Clearance certificate from Surrounding Land Owners
DoE	Department of Environment
DoP	Department of Police
DEMP	Drainage and Environmental Management Plan'
EMP	Environmental Management Practice
ECC	Environmental Clearance Certificate
EMS	Environmental Management System
EMP	Environmental Management Plan
ECA	Environmental Conservation Act
ECR	Environmental Conservation Rules
ECA	Environmental Court Act
ETP	Effluent Treatment Plant
EU	European Commission
FY	Fiscal Year
GDP	Gross Domestic Product
GIS	Geographic Information System
ID	Industrial Development
IP	Industrial Police
IS	Industrial Sector
IEE	Initial Environmental Examination
LGD	Local Government Division
LGED	Local Government Engineering Department
LGMA	Local Government (Municipality) Act
LGO	Local Government (Municipality) Ordinance
LUP	Land Use Plan
MoLGRDC	Ministry of Local Government Rural Development and Cooperatives
MoI	Ministry of Industry
MoEF	Ministry of Environment and Forest
MoP	Ministry of Planning
MoC	Ministry of Commerce
MoH	Ministry of Home
MDG	Millennium Development Goals
MM	Municipal Manual

MP	Master Plan'
NOC	No Objection Certificate
NEP	National Environment Policy
NGO	Non Government Organization
OI	Origin of Investor
PC	Planning Commission
PRSP	Poverty Reduction Strategy Paper
RSO	Report on Site observation
SM	Sreepur Municipality
SWOT	Strength Weakness Threat Opportunity
TL	Trade License
TLCC	Town Level Coordination Committee
UNIDO	United Nation Industrial Development Organization
UNEP	United Nation Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
URE	Undertaking Regarding Environment
WLCC	Ward level coordination committee

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CHAPTER-01

INTRODUCTION

1.1 BACKGROUND

In the past few years, the gross domestic product (GDP) of Bangladesh has been growing at an average of 5.5%. In 2005, GDP growth rate was 5.8% and the industry sector showed the highest growth at 8.5% (ADB, 2006). The country's population and labor force are growing rapidly every year, and it is impossible that the growing labour force can ever be absorbed in the agriculture sector, unless employment opportunities can be created by rapidly expanding the country's industry sector (Haq A I, 2008). Industrialization has the potentials to help achieve a variety of social objectives such as employment, poverty reduction, labour standards and greater access to education and healthcare (European Commission, 2006). Thus, industrial development is encouraged in all types of urban areas across the country to achieve the development vision by 2021. In a word, industry is the most potential sector for socio-economic development in Bangladesh.

In contrast, industrial processes can have negative environmental impacts, it can cause of climate change, loss of natural resources, air and water pollution and extinction of species. Apparently, unplanned and uncontrolled industrial development has great influence changing the surrounding built environment causing serious environmental degradation in urban area. So, the control of environmental degradation in urban area is a very burning issue for both national and local government context. Hence, industrial policy must have endorsement of some strategies regarding environmental management to set up environment friendly industry in any area.

According to the industrial policy of Bangladesh, a number of permissions from national government and local government are mandatory while setting industry. On behalf of national government, the 'Department of Environment' under the 'Ministry of Environment and Forest' is the concerned department to provide the 'Environmental Clearance Certificate (ECC)' for industry setting across the country. Alternatively, the municipality under the 'Ministry of Local Government Rural Development and Cooperatives' is concerned agency to preserve the built environment sound for urban

citizens ensuring sustainable urban development (Local Government Division, 2009). Therefore, the role of municipality is a very vital concern to the environmental management issue in urban area.

For setting any industry in an urban area, the 'Trade License', 'No Objection Certificate (NOC)' and approval of 'Layout Plan' of structures are required by the municipality. The municipalities provide the 'Trade License' and approve the 'Layout Plan' based on municipal manual¹ (Clause -54, 82, 83, 89, 92 & 112 and Clause-98) under 'Pourashava Ordinance 1977'. 'No Objection Certificate' (NOC) is required as 'environmental clearance' from the municipality (LGED, 2003). Municipalities provide 'NOC' based on their formulated 'By-laws'² considering environmental impact on surrounding areas for industrial development (Sreepur municipality, 2009).

As a local government agency, municipality can play the role of inspector for environmental management aspect in urban area by providing 'NOC'. But in reality, there are a number of limitations for municipalities in monitoring environmental degradation because of lack of provision for deploying skilled personnel in the existing organogram (LGED, 2003). For several cases, the key positions of the organogram are vacant and personnel engaged in doing this task are not able to play the role significantly for environmental management (UNESCAP, 2001). Moreover, municipalities are not capable to provide required facilities to reduce environmental pollution (LGED, 2009). So, the role of municipality in case of environmental management for industrial development is very weak. The result is entrepreneurs are almost free to develop industry in the urban area. Thus, malpractices are taking place in issuing 'NOC' from municipalities.

¹ Municipal Manual: There is an ancillary manual named Paurashava Manual which was published by Local Government Engineering Department (LGED) in 2003 under Pourashava Ordinance, 1977. The Paurashava Manual is more detail in objectives than Pourashava Ordinance, 1977.

² By-laws: Municipal council is supposed to prepare 'By-laws' on any particular issue if it is not specified in 'Local Government (Municipality) Act 2009'.

1.2 STATEMENT OF THE PROBLEM

In the recent years, industrial sector is increasingly contributing to the local economic development of Bangladesh. Major source of revenue earning for several municipalities of Bangladesh is the industrial sector. In the last decade, several municipalities (i.e. Sreepur, Kaliakar, Tarabo, and Siddirganj) have been established based on revenue earning from industrial sector. Table-1.1 shows the establishment, municipal area, total revenue earnings and revenue earnings from industrial sector of four municipalities in last three fiscal years.

Table-1.1: Revenue earning from industrial sector (% of total revenue)

Name of the municipality	Est't year	District	Total area (sq.k m)	Total Revenue (TR) in lakh Tk. Industrial Revenue (IR) (%)					
				Fy: 2007-08		Fy: 2008-09		Fy: 2009-10	
				TR	IR	TR	IR	TR	IR
Sreepur	2000	Gazipur	46.97	32.6	73.2	35.5	69.6	41.01	68.9
Kaliakar	2001	Gazipur	24.66	22.1	81.1	24.3	78.2	26.2	76.6
Tarabo	2003	Narayangong	24.05	23.2	88.9	25.1	86.8	26.9	85.2
Siddirganj	2004	Narayangong	30.17	24.1	81.2	27.3	79.1	28.3	78.2

Source: Local Government Division, July 2010.

From table 1.1, it is found that four municipalities are established only in two districts during 2000-04 and revenue earning is increasing in every year from industry sector which illustrates the growth of industries in these municipal areas.

Industrial development becomes a threat to the urban citizens for living if the municipality has no effective environmental management practices in the process of providing 'NOC'. Consequently, citizens of industrial dominating municipalities face serious environmental threat due to haphazard development of the industries. Day by day, environmental degradation like water pollution, air pollution and sound pollution is increasing in those urban areas. Therefore, during development of industry clusters, municipality should become "entrepreneurial state" based on a strong revenue-oriented nature for both urban growth and own economic benefit as well as independent "local development state" that effectively control and regulate environmental management practices through policies and regulations (Zheng, Jane, 2010)

Among industrial predominating municipalities, Sreepur is the largest municipality in terms of area and the municipality possesses the vision to be developed as an environment-friendly industrial city by 2025. Table 1.1 also shows that Sreepur is the eldest municipality in the last decade. Although Sreepur has been established in November' 2000 but there is no available information and data of industrial setting till 2003 at the municipality office (Sreepur municipality, 2010). However, a significant number of industries have been developed at Sreepur municipality over the last five years. Their unplanned development and lack of environmental management have resulted acute environmental degradation. Some pictures of industrial development in Sreepur municipal area and its negative consequences have been shown in figure-1.1.



Figure-1.1: Industrial waste water discharging system in Sreepur municipal area.

Picture A shows the waste water discharge system of a large industry in ward 4, Picture B shows the drainage system for waste water at Gilarchalla, Picture C shows causing water contamination for waste water from industry and Picture D shows the water pollution in Gargaria canal due to unplanned drainage system for waste water from industry unit in Sreepur municipal area. There is no river flowing into Sreepur municipal area and Sreepur municipal area is located in high flood free land. Day by day, environmental degradation like water pollution, air pollution and noise pollution are increasing in Sreepur municipal area.

Moreover, very recently, Government of Bangladesh has taken a development project to create the largest and modern eco-park of the country by 2013 in Sreepur upazila which is very adjacent to the existing highly dense industrial establishments and the east side of Sreepur municipal area also surrounded by forest resources (Sreepur municipality 2010). So, Sreepur municipality needs high protection to conserve the built environment in its jurisdiction area both for sound living of the citizens and nearest environmental sensitive zone.

Most of the municipalities in Bangladesh have no strategic base to control the environmental degradation in urban area through environmental management practices as well as citizens are not aware enough about the environmental impact on the surrounding built environment for industrial development. For the industrial pre-dominating municipality like Sreepur, there should have some strategic approaches for environmental management practices in case of industrial development in municipal area. Obviously, municipality can play an important role to control environmental degradation in urban area through effective management practices considering sustainable strategies in decision making process for well-being of the citizens. Thus, strengthening the role of municipality through effective mechanism is very essential to overcome the degraded situation of environment in urban area.

Therefore, some research works are very important to understand the drawbacks and limitations of the present environmental management practices at municipalities for environment friendly industrial development in urban area.

1.3 OBJECTIVES

This research assumes that the role of municipalities is very fragile and irregular in the process of environmental management practices while setting industries in urban area. So, the study has been conducted to fulfill the following objectives:

- To study the types and spatial distribution of industries established in Sreepur municipality during 2004 to 2009.
- To investigate the process of ‘No Objection Certificate (NOC)’ providing as environmental clearance while setting industry in the study area.
- To figure out the existing strength and weakness of municipalities for environment friendly industrial development.

1.5 RATIONALE OF THE STUDY

The study will reveal the actual role of municipalities in case of industrial development which will help to find out the scope of improvement in the current environmental management practices at municipality to control the environmental degradation. The study will provide some guidelines to develop the strategies for strengthening the role of municipalities and will also open the windows to promote the positive impacts of industrial development while limiting or eliminating its negative impacts throughout the urban area. The study will also have some recommendations to incorporate the local government in the industrial policy making and implementation committee to ensure the development of an environment-friendly and sustainable urban area. Finally, the ultimate outcome of the study will also make sense to establish the strategies of industrial policy to control the adverse impact due to environmental degradation in urban area across the whole country.

1.6 SCOPE AND LIMITATIONS OF THE STUDY

The study focus the present situation of environmental management practices in the municipalities of Bangladesh which will disclose some time befitting requirements to promote the integrated approach in environmental management issue for sustainable urban development. The municipality should have an integrated approach comprising the role of municipal-authority, citizens and the industrial entrepreneurs in environmental

management practices regarding control of environmental degradation. Economics of industrial location choice and environmental management are out of scope of this study. Data regarding environmental clearance from Department of Environment is not included in the present study

CHAPTER-02

INDUSTRIAL DEVELOPMENT AND ENVIRONMENTAL MANAGEMENT PRACTICES

2.1 INTRODUCTION

Industry³ is one of the largest sectors for economic development in the world over the last 100 years. At present, every country has concerned ministry, department and institutions, as well as United Nation has a sister organization namely United Nation Industrial Development Organization (UNIDO) to way forward of industrial development. Industrial policies have been prepared at different development stages in many countries following their development vision. At the same time, industrial processes play a major role in the degradation of the global environment. In industrialized countries, environmental regulation and new technologies are constantly struggling to reduce the environmental impact but industrial activities and their growing demand are still putting pressures on the environment and the natural resource base (European Commission, 2006).

Thus, environmental management is the burning issue in the present world to protect the built environment for human survival. Every country has established concerned ministry, department and institutions, and United Nation has also a sister organization namely United Nation Environment Programme (UNEP) that assisting governments in obtaining environmental information for decision-making, enhancing global and regional environmental cooperation, developing and applying national and international environmental law, advancing national and regional implementation of environmental objectives, and bridging major groups and governments in policy development and implementation processes (Domenech, T and Davies, M, 2009).

The author has reviewed some reports on industrial development and environmental management issue in national and regional level to clarify the concepts relevant to the research topic. An overview of relevant concepts from published and unpublished thesis, journals, books, newspapers, magazines, internet, documents from different

³ **Industry:** Industry includes production, processing and assembling, and rehabilitation and fabrication of manufactured goods are included. (Source: Industrial Policy 2010).

organizations/policies etc have been incorporated in this chapter to illustrate the existing scenario of industrial development and the role of local government (municipality) for environmental management practices.

2.2 INDUSTRIALIZATION AND REGIONAL GROWTH

Industrialization is a part of wider modernization process, where social change and economic development are closely related with technological innovation, particularly with the development of large-scale energy and metallurgy production (Sullivan, Steven, 2003). Key positive factors facilitating industrial modernization and enterprise development identified by researchers have ranged from favourable political-legal environments for industry and commerce, through abundant natural resources of various kinds, to plentiful supplies of relatively low-cost, skilled and adaptable labour (Lewis, 2003).

According to the original sector classification of Jean Fourastié (1954), an economy consists of a "Primary sector" of commodity production (farming, livestock breeding, exploitation of mineral resources), a "secondary sector" of manufacturing and processing (as paid work), and a "Tertiary Sector" of service industries. The industrialization process is historically based on the expansion of the secondary sector in an economy dominated by primary activities (Jean Fourastié, 1954).

The first transformation to an industrial economy from an agricultural one is called the Industrial Revolution and took place from the mid 18th to early 19th century in certain areas in Western Europe and North America, starting in Great Britain Derby, followed by Germany, f.i. Bergisches Land and France. This now is called the first industrial revolution (Pollard, 1981).

The Second Industrial Revolution describes the later changes that came about in the mid 19th century after the invention of steam engine, internal combustion engine, Electricity and the construction of canals, railways and electric power lines. The invention of the assembly line gave this phase a boost (Jones, 2003).

Apart from Japan, where industrialization began in the late 19th century, a different pattern of industrialization followed in East Asia. One of the fastest rates of industrialization occurred in the late 20th century across four countries known as the Asian tigers thanks to the existence of stable governments and well structured societies, strategic locations, heavy foreign investments, a low cost skilled and motivated workforce, a competitive exchange rate, and low custom duties.

In the case of South Korea, the largest of the four Asian tigers, a very fast paced industrialization took place as it quickly moved away from the manufacturing of value added goods in the 1950s and 60s into the more advanced steel, shipbuilding and automobile industry in the 1970s and 80s, focusing on the high-tech and service industry in the 1990s and 2000s. As a result, South Korea became a major economic power.

This starting model was afterwards successfully copied in other larger Eastern and Southern Asian countries, including communist ones. The success of this phenomenon led to a huge wave of off shoring – i.e., Western factories or Tertiary Sector corporations choosing to move their activities to countries where the workforce was less expensive and less collectively organized.

China and India, while roughly following this development pattern, made adaptations in line with their own histories and cultures, their major size and importance in the world, and the geo-political ambitions of their governments (etc.). Both China and India, particularly the Chinese, have also started to make significant investments in other developing countries, making them significant players in today's world economy.

In recent decades, a few countries in Latin America, Asia, and Africa, such as Turkey, South Africa, Malaysia, Philippines and Bangladesh have experienced substantial industrial growth. They are sometimes called newly industrialized countries.

In the long run pattern of regional and sub-regional growth, the fundamental theory is sector theory which arises from empirical observations by Clark and Fisher (Glasson J, 1968). Sector theory is established based on three basic sectors such as agriculture (primary), industry (secondary) and service (tertiary). This theory reveals that industry sector rises faster than agriculture sector and grows more rapidly than others sectors for regional growth (Glasson J, 1968). An extension of the sector theory is the stages theory

which suggests that regional development is primarily an internal evolutionary process with the following stages;

- The self-sufficient subsistence economy, with little investment or trade.
- The region develops trade and specialization with the improvement in transport.
- The region progresses with increasing inter-regional trade.
- The region is forced to industrialize with increasing population and diminishing agricultural returns and secondary industry develops.
- The development of tertiary industry producing for export.

Based on the stages theory of inter-regional growth, regional industrial development planning or regional policy has been formulated in several countries, although its relative importance varies according to the stages of development of the country (Glasson J, 1968). In 1960, the American economic historian WW Rostow suggested a model for the stage of economic development. According to that model the country passed through five stages of economic development. Figure 2.1 shows the Rostow's model for the stages of economic development.

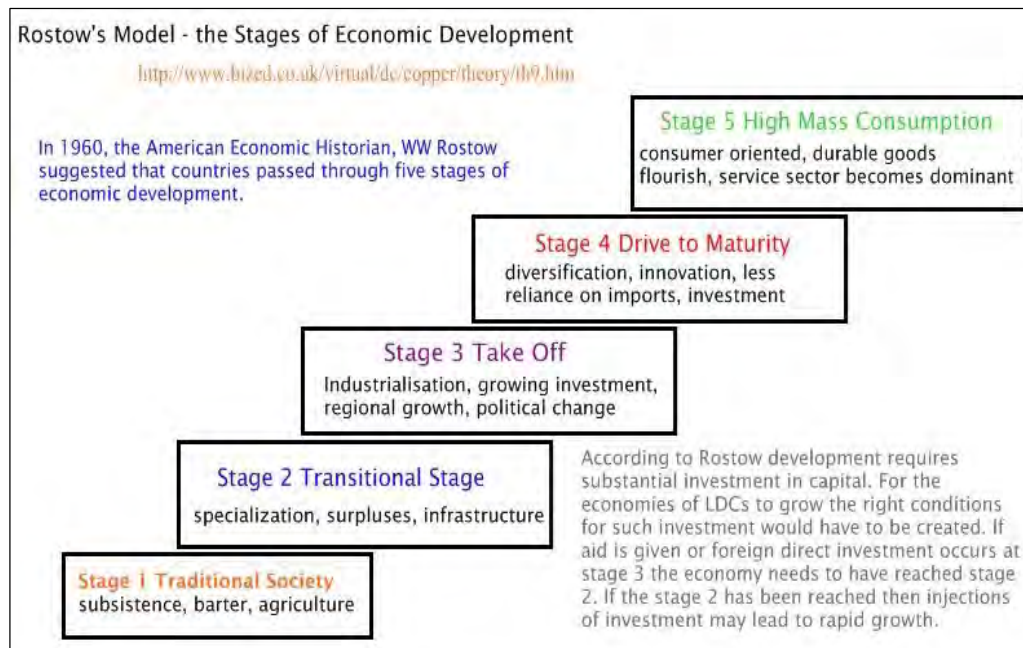


Figure-2.1: Rostow's model for the stages of economic development

Stage 1: Traditional Society- Refers to a country that has yet to begin developing, where a high percentage of people are involved with agriculture and a high percentage of the

country's wealth is invested in activities such as the military and religion, seen as "nonproductive" by Rostow.

Stage 2: Transitional Stage- AKA the preconditions for takeoff. Under the model, the process of development begins when an elite group initiates innovations economic activities. Under the influence of these well-educated leaders, the country starts to invest in new technology and infrastructure, such as water supplies and transportation systems. These projects will ultimately stimulate an increase in productivity likely increasing the GDP. There is a limited production function, and therefore a limited output. There are limited economic techniques available and these restrictions create a limit to what can be produced. Increased specialization generates surpluses for trading. There is an emergence of a transport infrastructure to support trade. External trade also occurs concentrating on primary products.

Stage 3: Takeoff- Rapid growth is generated in a limited number of economic activities, such as textiles or food products. These few, takeoff industries achieve technical advances and become productive, whereas other sectors of the economy remain dominated by traditional practices. After take-off, a country will take as long as fifty to one hundred years to reach maturity. Globally, this stage occurred during the Industrial Revolution. Industrialization increases, with workers switching from the agricultural sector to the manufacturing sector. The level of investment reaches over 10% of GNP. The growth is self-sustaining as investment leads to increasing incomes in turn generating more savings to finance further investment.

Stage 4: Drive to maturity- Modern technology, previously confined to a few takeoff industries, diffuses to a wide variety of industries, which then experience rapid growth comparable to the takeoff industries. Workers become more skilled and specialized. The economy is diversifying into new areas the economy is producing a wide range of goods and services and there is less reliance on imports.

Stage 5: High Mass Consumption- The economy shifts from production of heavy industry such as steel and energy, to consumer goods, such as motor vehicles and refrigerators. Of particular note is the fact that Rostow's "Age of High Mass Consumption" dovetails with (occurring before) Daniel Bell's hypothesized "Post-Industrial Society." The

Bell and Rostovian models collectively suggest that economic maturation inevitably brings on job-growth which can be followed by wage escalation in the secondary economic sector (manufacturing), which is then followed by dramatic growth in the tertiary economic sector (commerce and services).

From above Rostow's model, it is illustrated that transitional stage is very much crucial period of economic development. In this stage, industrialization process became the deriving concept of social and economic change through knowledge transfer, change of attitude and investment pattern. The exploration of industrial development would be happened for regional growth. Presently, many developing countries like Bangladesh is passing transitional period of economic development based on industrial development. So, sustainability of industrial development largely depends on the consequences of transitional stage.

2.3 INDUSTRIAL DEVELOPMENT AND ENVIRONMENT

Industrialization to achieve economic development has resulted in global environmental degradation. While the impacts of industrial activity on the natural environment are a major concern in developed countries, much less is known about these impacts in developing countries. The developing world is often seen as having a high percentage of heavily polluting activities within its industrial sector. This, combined with a substantial agricultural sector, which contributes to deforestation, the erosion of the top soil and desertification, has lead to extreme pressures on the environment and impoverishes the population by destroying its natural resource base. This crisis suggests that sound industrialization policies are of paramount importance in a developing countries' economic development, and calls for the management of natural resources and the adoption of low-waste or environmentally clean technologies (Se Hark, Walter, 2011).

Countries, such as the United States and China are now looking at ways to manage emissions being let off. China, being one of the fastest growing industrialized countries, releases emissions at a much more rapid rate than any other country. They are burning more fossil fuels and discharge more Carbon emissions. With China's substantial industrialized growth, it is likely that we will see more cars on the road, letting of greater

emissions. As more countries begin to develop, the pollution only gets larger, making it harder to improve the air. On one hand, as the economy rises, so does the amount of fossil fuels being burned daily. On the other hand, there is still the question of whether or not economic development could even happen while protecting the atmosphere. Even if the countries do work together, there is still not enough participation among other countries to do any drastic change. Countries now need to agree on a low emission standard to cease the competition.

Industrialization has spawned its own health problems. Modern stressors include noise, air, water pollution, poor nutrition, dangerous machinery, impersonal work, isolation, poverty, homelessness, and substance abuse. Health problems in industrial nations are as much caused by economic, social, political, and cultural factors as by pathogens. Industrialization has become a major medical issue worldwide (Hopke, 2011).

The European Commission published a report “Environment fact sheet” in March, 2006 focusing on the potential of industrial development and negative environmental impacts of industrial development. This report reveals themes that the more developed a country’s industrial capacity, the greater the potential for economic growth and development. If carried out in a sustainable manner, taking into account the often fragile nature of the surrounding environment, societal patterns and economic conditions, this can achieve lasting improvement in living standards. If, on the other hand, industrial development is coupled with environmental degradation and resources depletion, societal exploitation and economic recklessness, the associated benefits, if any, will not last (European Commission, 2006). Therefore, improvement of management systems at concerned authority through updating industrial policy in national level and strengthening the role in local level are required to achieve both environmental sustainability and economic growth in urban area.

2.4 INDUSTRIAL LOCATION CHOICE

The pace of industrialization depends upon a large number of factors such as resource endowment, size, location, international environment etc (Haq A I, 2008). The location of industries is the main determinant for sustainability of industrial development. So, the choice of location for industrial development is very important factor. The industrial location theory has three approaches which are as follows;

- ***The least cost approach***, which attempts to explain location in terms of the minimization of factor costs. This approach depends on some basic factors for industry set up and production running. These basic factors are better transportation system for low carrying cost of raw materials and products, cheap labour and land suitability and availability for industrial development.
- ***Market area analysis***, in where there is more emphasis on the demand or market factors. So, continuous demand of market is the principle of this approach.
- ***The profit maximization approach***, the logical outcome of the other two.

These three ‘umbrella’ approach provide a useful framework for the analysis of the theoretical approach to industrial location (Glasson J, 1968) and also identify transport, labour, agglomeration and market as the key elements in location theory. The theory does not consider the environmental impact to choice location for industrial development.

But, industrial development is recognized as driving force of structural change in nature for economic development which has huge impact to the surrounding built environment. So, following the environmental negative consequences of industrial development in last few decades, location theory should also include the environmental management issue with significantly.

Experiences in last three decades illustrated that developing world is more vulnerable than developed world because of negative consequences of industrialization. Uncontrolled emissions from industries are degrading the built environment and cause of global warming to climate change. Resulting some natural hazards (i.e. flood, cyclone) are more frequent than previous to human being. Apparently, in urban area, conservation of sound environment for citizen is major concern now due to unplanned industrial development. But, climate and landscape are only part of the total environment which helps to determine the ‘quality of life’. So, municipality should give more attention to environmental management issue during industrial development in urban area to conserve the built

environment for safe and comfortable living of its citizens. Consequently, environment and landscape appear to be of growing importance as location determinants. Therefore, environmental factors may come into play in deciding the final choice (Glasson J, 1968).

2.5 INDUSTRIAL DEVELOPMENT: BANGLADESH PERSPECTIVE

2.5.1 Introduction

Industrial development in Bangladesh, during the post-independence period, both in terms of its growth rate as well as the structural changes, has been rather modest. Between 1983-84 and 2005-06, its share in GDP increased from about 10 percent to 17 percent, and the share of employment rose from 9 percent to 11 percent. However, the dynamism of the industrial sector is reflected in the sectoral share to GDP and particularly in the share of incremental GDP value addition. On the weak side, the industry sector is narrow – based- only five industries (readymade garments and textiles, fish and seafood, leather, fertilizer and pharmaceuticals) accounted for 81 percent of the growth achieved during the 1980s. After the trade liberalization of the 1990s, between 1992 and 2000, the number of large and medium enterprises in the industry sector increased than small enterprises. At present, the textile and readymade garment sector employs about 6.5 million people (Planning Commission, 2010). Figure 2.4 shows the contribution of the industry sector in the country’s GDP from FY2005-06 to FY2009-10;

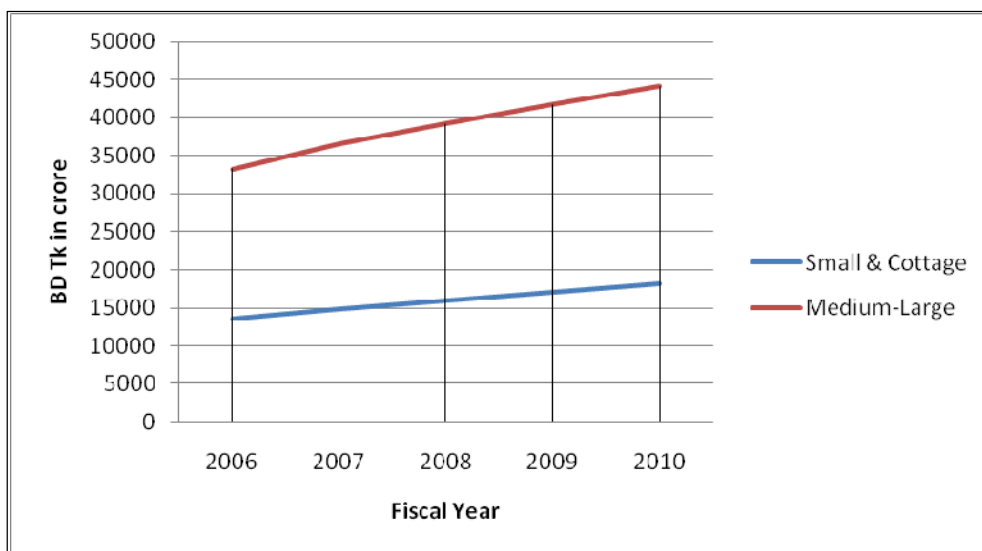


Figure 2.2: Contribution of the industry sector in the country’s GDP from FY2005-06 to FY2009-10. Source: Bangladesh Bureau of Statistics.

From the figure 2.2 it is illustrated that the contribution curve of the industry sector for GDP growth of Bangladesh seems upward and Medium-Large Industries gradually getting more importance than Small and Cottage Industries for upgrading the country's GDP.

Consequences of huge population, there is a general consensus that in order to generate accelerated economic growth Bangladesh will need to ensure radical structural shift favouring the industrial sector (CPD, 2001). The overarching goal for the country's industrialization is to enhance the industrial sector's contribution to national GDP to 40 percent and in employment to 20 percent over the next decade (Planning Commission, 2010). Therefore, each elected government of Bangladesh is more responsive than previous to meet the unemployment in the country for increasing the GDP growth rate. Thus, industrial policy has changed by every new government within its period. The author has reviewed the industrial policies in Bangladesh and stated key observations in the next paragraph.

2.5.2 Industrial Policies in Bangladesh

It has been 39 years since Bangladesh's independent. Since then Bangladesh has formulated nine industrial policies, each having specific objectives and strategies. But, experience shows that public policy is the main determinant of a country's industrial growth (Haq A I, 2008). Nine industrial policies in Bangladesh as follows;

1. Industrial Investment Policy, 1973
2. New Industrial Investment Policy, 1974
3. Revised Investment Policy, December 1975
4. New Industrial Policy (NIP), June 1982
5. Revised Industrial Policy (RIP), July 1986
6. Industrial Policy, July 1991
7. Industrial Policy, 1999
8. Industrial Policy-2005 (IP 2005)
9. Industrial Policy 2010 (IP 2010)

The most common objectives in these policies are as follows;

- Create employment opportunity and Poverty reduction
- Increasing annual GDP growth rate

- Small and medium scale industrial development
- Export-orientated industrial development
- Local level industrial development.
- Environment-friendly industrial development

Industrial policy defines the classifications of industrial enterprises (Ministry of Industry, 2005). Based on investment, there are basic three types of industries as bellows;

- '*Large industry*' means an industry in which the value/replacement cost of durable resources other than land and factory buildings is above 100 million taka.
- '*Medium industry*' means an industry in which the value/replacement cost of durable resources other than land and factory buildings is above 15 million and less than 100 million taka.
- '*Small industry*' means an industry in which the value/replacement cost of durable resources other than land and factory buildings is above 0.50 million and less than 15 million taka.

Industrial policy also locates the developed industrial area and under-developed industrial area in Bangladesh (Ministry of Industry, 2010).

According to the review of industrial policies in Bangladesh, it is clear to understand that policies were updated to meet the state requirement. The vision of the Industrial Policy, 2010 is that Bangladesh will have, by 2021, a dominant industrial sector where manufacturing will account for at least 40 percent of the gross domestic product (GDP) with a capacity to absorb 25 percent of the workforce. Among nine industrial policies, Industrial Policy 2010 (IP 2010) is the most feasible one regarding environment safety. In the latest Industrial Policy 2010 (IP 2010), there is an inclusion of important part regarding establishment of environment-friendly industry. In fact, this inclusion is the outcome of post-industrial worse experience in last decade. Although, local investors and environment friendly industrial development are highly encouraged in last two industrial policies. But, in the list of

stakeholder for preparation, monitoring and implementation of industrial policy, the role of local government does not exist.

Consequently, local government organization at local level is neither aware about the National Industrial Policy nor liable for following the National Industrial Policy. So, the findings from this research will create a sense to knock at the policy maker for updating the industrial policy regarding environmental management practices at local level.

2.5.3 Industrial Development and Environmental Management Practices.

Environmental and natural resources are the ultimate base of economic development. Also, with trees being the source of oxygen and the sink for carbon dioxide and water being crucial for life, human life itself is dependent on the environment. Environmentally sound development calls for actions to restore and maintain environmental health while pursuing socio-economic development. The process of economic growth, to be socially sustainable, must also be equitable. Such an integrated pathway is crucial from the perspective of longer term development sustainability and for leaving the environment, as inter-generational equity considerations demand, in such a state that the future generations can meet their needs (Planning Commission, 2010).

Industrialization is generally believed to be the key to economic development for the developing countries like Bangladesh (Haq A I, 2008). The state of Bangladesh's environment is already very unhealthy and its degradation continues unabated. One of major reasons for environmental degradation in Bangladesh is behavioural which include deforestation, pollution of air, water, and land through deposition of industrial effluent (Planning Commission, 2010).

The global environment is facing many threats due to various human behavioural activities. Industrialization is among the root causes of today's vulnerability of the global environment resulting in global warming (Finance Division, 2010). The adverse impacts of global warming are going to spread along the shoreline of countries like Bangladesh affecting their overall socio-economic condition. One of the first internationally collaborative efforts was the Stockholm Conference on Human Environment in 1972.

These efforts were given a new impetus in 1992 with the Earth Summit in Rio de Janeiro, Brazil.

The first environmental activities in Bangladesh were taken soon after the Stockholm Conference on Human Environment in 1972. As a follow up action to the Stockholm Conference, the Government of Bangladesh funded, under the aegis of the Department of Public Health Engineering and with a staff level of 27 and after promulgating the Water Pollution Control Ordinance in 1973, a project primarily aimed at water pollution control. In subsequent years, various events took place as described below.

In 1977, Environment Pollution Control Board with 16 members headed by a Member of the Planning Commission and Environment Pollution Control Cell headed by a Director with staff complement of 26 was established. This was followed in 1977 by the establishment of the Environment Pollution Control Project, in 1985 by the establishment of the Department Pollution Control and finally, in 1989 by the restructured and renamed the Department of Environment (the Department) the activities of which are overseen by a Director General. The Department discharges its responsibilities through a head office and six Divisional offices located in Dhaka, Chittagong, Khulna, Bogra, Barisal and Sylhet. Of late, the Government has been set up 21 new offices at district level with the creation of 468 new positions. As a result, the DoE staff has been increased to 735.

The DoE is responsible to oversee the environmental management aspects across the whole country. The DoE has published some legal bases; The National Environment Policy-1992, The Environmental Conservation Act-1995 (amended in 2000 and 2002), The Environmental Conservation Rules-1997, The Environmental Court Act-2000 (amended in 2002) and Bangladesh Environment Conservation (Amendment) Act-2009 to arrest environmental degradation.

Based on the above legal bases, the government took some initiatives to control of industrial pollution across the country which are stated in the following paragraphs from Bangladesh Economic Survey-2009;

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 effluent treatment plant. Steps have been taken to set up effluent treatment plants for the existing industries with the support of chamber and the concerned sector-associations.

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 FY2002-05 the department of environment had conducted a survey covering 11,149 industrial units in whole country. Out of them 524 units had identified as Red Category as per ECR, '97. 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. Besides, four enforcement teams constituted by the DoE, 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.

Currently, a UNEP-assisted project, titled, 'Survey and Mapping of Environmental Pollution from Industries in Greater Dhaka and Preparation of Strategies for its Mitigation' is being implemented by the DoE, since 2009. This project has been undertaken with a view to formulating and undertaking an action plan on accurate assessment of the number and 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 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 (Finance Division, 2010).

On 30.10.2010, the government established industrial police to secure the law and order situation of industrial sectors in Bangladesh. At present, three zones are identified in Bangladesh. Two zones in Dhaka; zone-1 (Ashulia) and zone-2 (Gazipur) and another zone is located in Chittagong. There are three units of industrial police for the three industrial zones (Department of Police, 2011).

In December, 2010, the DoE has published “National 3R Strategy for Waste Management”. The waste management system of local authority (The City Corporation/Municipality) has been observed in very much critically for upgrading the system. The government has identified some sector as priority such as municipal solid waste, industrial waste, biomedical waste, institutional and commercial waste, and agricultural waste (DoE, 2010). The publication has suggested some strategies regarding waste management based on past experiences. One of those important strategies is management of hazardous waste from industries as well as suggested to conduct research and development regarding industrial waste management. Hence, the role of local government (The City Corporation/Municipality) is very important issue to control the industrial waste management system.

Local government division under ‘The ministry of Local Government Rural Development and Cooperatives is responsible to oversee and support the municipalities. After the independence of Bangladesh, local government division published the ‘Local Government (Municipality) Ordinance-1977’ and the ‘Local Government (Municipality) Ordinance-2008’ to govern the municipalities. Reviewing these legal bases it is found that there is no clear and separate clause for environmental management practices. During last decade, although environmental management is the most critical issue in the municipality level due to rapid industrialization; apparently, there is no effective mechanism for environmental management practices in the municipality level. Most of the municipality has no strategic approach in action for environmental management. Even, present government has published the ‘Local Government (Municipality) Act’ October 2009⁴ in which has no any clear specification regarding environmental management practices for industrial development.

From the above, it is understandable that national government agency has taken some initiatives to protect the environment from industrial waste according to their jurisdiction based on legal bases by concerned authority. According to the national constitution, local

⁴ **Municipality Act:** After liberation war of Bangladesh, Pourashava Ordinance, 1977 was the blue book to govern the municipality which was modified in 2008 under Caretaker Government and revealed as Local Government (Paurashava) Ordinance, May 2008. Finally, Present Government revised the Local Government (Paurashava) Ordinance, 2008 and revealed as Local Government (Paurashava) Act, October 2009.

government has pre-concerned to keep safe and secure environment from all types of vulnerable situation for citizens in its jurisdiction area. Moreover, national industrial policy-2010 highly encourages the environment friendly industrial development in district level across the country. In the “National 3R Strategy for Waste Management”, it is recommended to provide the grants for research works for sustainable waste management in local area. So, non-profit research institutes and public universities can earmark the critical issues of industrial waste management through intensive research works to way forward of “National 3R Strategy for Waste Management”.

CHAPTER-03

METHODOLOGY

3.1 INTRODUCTION

The methodology is the science of method; the science dealing with principles of procedure in research work. The methodology of the research is strategic or scientific approach to organize and analyze the scattered ideas and views of the study. It also expresses some techniques of collecting, processing and analyzing the data and information. So, the methodology is very crucial for data collection and data processing from every angle and makes right decision. As a paper working procedure helps to accomplish the study smoothly, this study has maintained a systematically arranged methodology for the achievement of desired output and illustrates in this chapter.

3.2 SELECTION OF THE STUDY AREA

The present study intends to measure the role of municipality in the process of providing 'NOC' as 'environmental clearance' while setting industry in urban area. According to the industrial policy 2010, Gazipur is one of the central districts for industrial development. Sreepur municipal area in Gazipur district is the most suitable location for further industrial development regarding topographical features. Based on the problem statement, the author selects Sreepur municipality as a study area to monitor industrial development and environmental management practices during 2004 to 09. Among industrial predominating municipalities, Sreepur is the largest municipality in terms of area and the municipality possesses the vision to be developed as an environment-friendly industrial city by 2025 (Sreepur municipality, 2010). Figure 3.1 shows the geographic location of Sreepur upazila in Bangladesh map and figure 3.2 illustrates the base map of Sreepur municipal area and the location of existing industries. This study may help to identify some key issues related to industrial development and environmental management practices in Sreepur municipality to give some recommendations for environment friendly industrial development to fulfill the vision.

3.3 FLOW DIAGRAM OF METHODOLOGY

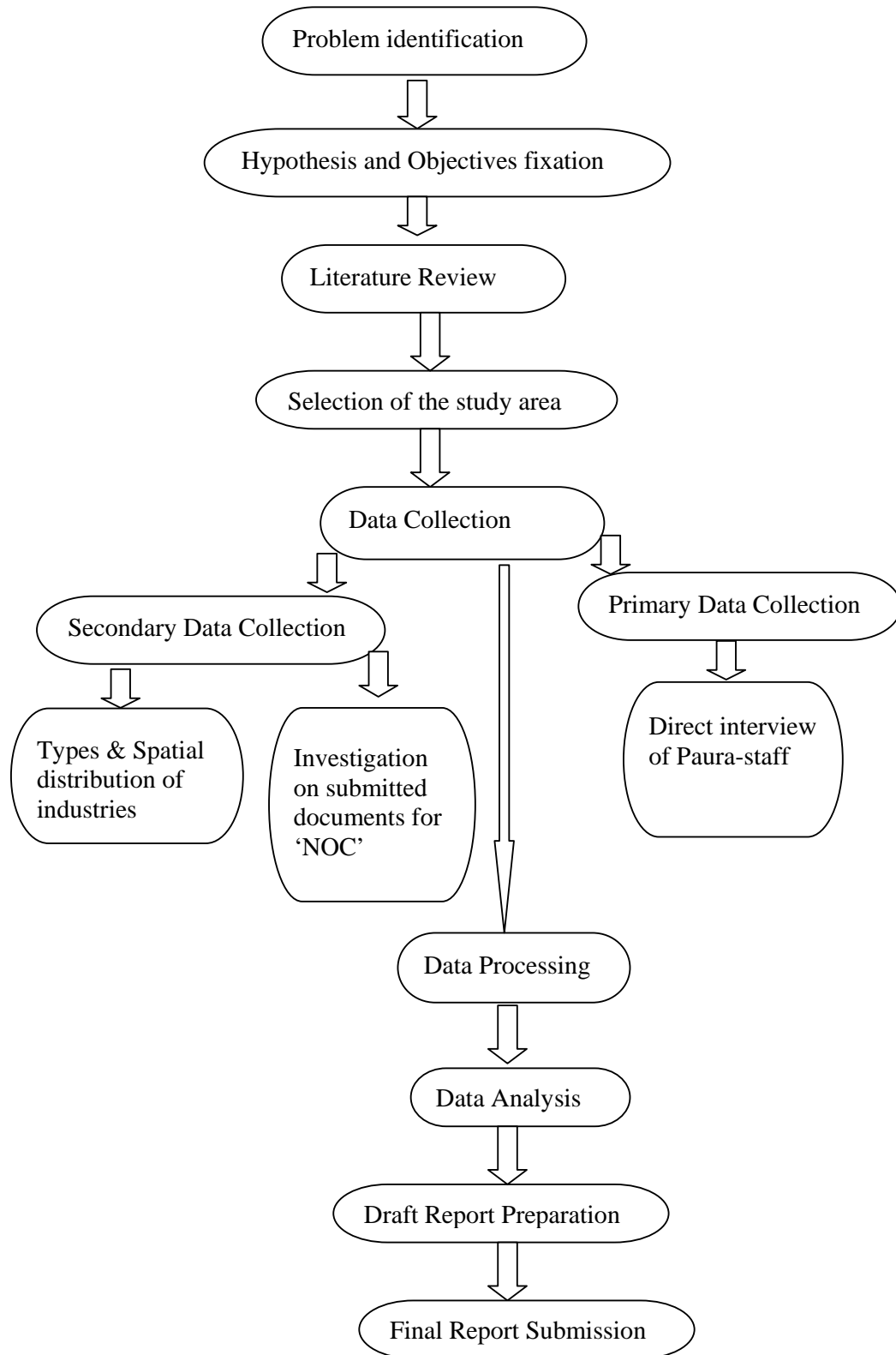


Figure-3.3: Flow diagram of the methodology of the study.

3.4 DATA COLLECTION

Data collection process is mentioned in the following table:

Table-3.1: Data collection process.

Objectives	Method	Variables
First objective	The information has been collected from the office of the Sreepur municipality	<ul style="list-style-type: none"> • The list of industries approved by Sreepur municipality. • The total amount of investment. • Location of the industries. • Base map of Sreepur municipality.
Second Objectives	Investigation of submitted documents by the entrepreneurs with the application for getting 'NOC' during 2004-09.	<ul style="list-style-type: none"> • Deed of landownership: Owned/Rent/Lease, • Category of industry • Input materials and output products, • IEE report and ETP • Mouza/Location map, • Site plan • Types of structure • Undertaking regarding environment, • Clearance from surrounding land owners. • Report on site observation
Third Objectives	Direct interview of the relevant staff at the municipality providing 'NOC' for setting an industry.	<ol style="list-style-type: none"> 1. Format of the required documents like; <ul style="list-style-type: none"> • Landownership: Owned/Rent/Lease, • Undertaking regarding environment, • Clearance from surrounding land owners. 2. Legal base, 3. Organogram 4. Skilled manpower, 5. Report on site observation 6. Link to DoE

3.5 DATA PROCESSING

After collecting necessary data from secondary sources such as register of 'NOC' and investigation on submitted documents with the application form for getting 'NOC' all have been assembled using tabular format and checklist as well as processed for next phase. The findings from the questionnaire survey of paurastaffs have been also processed for next phase. In this stage, data have been categorized for easing the analysis and drawing statistical inferences based on the objectives of this study.

3.6 DATA ANALYSIS

After data processing, to meet first objective the industries established during 2004-2009 in Sreepur municipality have been categorized following municipality existing practice as well as according to the 'DoE' classification and the spatial distribution of existing industries has been shown in map format for visual presentation using Arc GIS. The author has analyzed the density pattern of existing industries to show whether the industries are cluster, random or dispersed using average nearest neighbor method of Arc GIS 9.2 software. Average nearest neighbor index is based on the average distance from each industry to its nearest neighboring industry and expressed as the ratio of the observed distance divided by the expected distance (hypothetical random distribution). Hence if the index is less than 1, the pattern exhibits clustering; if the index is greater than 1, the trend is toward dispersion. A sample of average nearest neighbor analysis is shown in figure 3.3;

Illustration

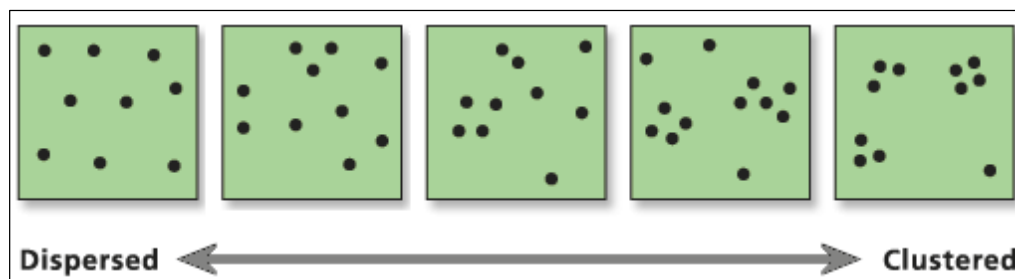


Fig 3.4: Illustration of average nearest neighbor analysis.

To meet second objective a statistical analysis has been carried out based on investigation findings. To meet third objective an analytical report has been prepared based on findings from the direct interview of relevant municipal-staffs. Finally, the author has summarized

the important findings from data collection and put some recommendations based the key findings regarding the process of 'NOC' providing while setting industry for better environmental management practices in Sreepur municipality.

CHAPTER-04

TYPES AND SPATIAL DISTRIBUTION OF EXISTING INDUSTRIES IN SREEPUR MUNICIPALITY

4.1 INTRODUCTION

The social and environmental impacts for industrial development largely depend on their classification and spatial location of industries in urban area. Any structural change has either positive or negative influence on its surroundings social environment as well as on built environment. Apparently, large structural change of industrial development generates more environmental impacts on surroundings. Therefore, types of industries are important factor for environmental management. It seems that high concentration of industries makes more structural change in surrounding built environment that creates additional sufferings for human being. So, spatial distribution of industries is another vital feature to control the environmental degradation.

During 2004 -2009, a number of industries have been established in SM which has significant impact on the surrounding built environment. The types and spatial location of existing industries in Sreepur municipal area are stated in the following paragraphs.

4.2 TYPES AND SPATIAL DISTRIBUTION OF EXISTING INDUSTRIES

According to Sreepur municipality register, 122 industries of different types have been established within the jurisdiction of municipal area during 2004 to 2009. Among these, about 32 less polluting and small sized industries like sow mill and husking mill as well as handicraft and cottage industries have received trade license from the municipality during the stated period. It was observed that these industries do not require 'No Objection Certificate (NOC)' from the municipality for their operation in the municipal area and thus do not appear in the register of industries which have applied for 'NOC' as environmental clearance to the municipal authority. However, other 90 industries are found which are presumably more polluting and large industries. These industries were asked for environmental clearance along with the trade license from the municipality prior to their

establishment in the municipal area. A list of industries during 2004 to 2009 is enclosed as annex-A in **pages no 78-82**.

While providing the trade license, Sreepur municipality segregates the industries into two categories such as limited company or proprietor based on ownership status. In case of limited company, there is a requirement of submission the company's memorandum for 'Trade License'. An application form for getting TL is enclosed as annex-B in **page no 83**. From the company's memorandum, Sreepur municipality knows the investment amount of industry. Sreepur municipality has 'by-laws' to define the industries into three types (i.e. small, medium and large) based on the investment amount and charges the fee accordingly for the TL'. The different types of existing industries in Sreepur municipal area following annex-A are shown in below table;

Table 4.1: Distribution of industries according to ownership status and investment type in Sreepur municipality.

Ownership pattern of industries	Number of industry (%)	Number of industry (%)	Typology of industries based on investment	Investment Amount (Taka)
Proprietor	36 (29.51)	33 (27.05)	Small	Up to 100,000
		3 (2.46)	Medium	100,001-10,000,000
Limited company	86 (70.49)	13 (10.6)	Large	Above 10,000,000
		73 (59.84)		
Total	122 (100)			

Source: Sreepur municipality office, August 2010

From the above table 4.1, it is found that 86 out of 122 industries have limited company ownership status. Among these 86 industries, 73 industries are large and rest 13 industries are medium. Almost all large and medium industries are limited company and small industries are proprietor. Figure 4.1 shows the spatial distribution of industries in Sreepur municipal area based on ownership status and investment type.

From the figure 4.1, it is found that all large and medium industries which are classified as limited company located in ward no-5, 7, 8, 6 and 4 that are adjacent to Dhaka-Mymensingh highway and other mains roads namely Mowna-Sreepur road and Sreepur-Master bari road. According to the limited company ownership, the land for proposed industry is registered for company's name. So, more number of limited company means more land occupancy for industries in urban area. Consequently, broad structural change in built environment and have more investment for input materials. Broad structural change in municipal area due to industrial development creates more threat to urban citizens. Therefore, typology based on ownership pattern and investment is important factor to control the degradation of built environment. Besides this, more investment for input materials produce more output materials and more output materials generate more waste which has huge negative impact on surrounding built environment.

Although, industry category based on input materials and output materials is more important than other typology regarding environmental management issue, but Sreepur municipality does not take consideration of this typology while providing 'NOC' for setting industry. The national agency DoE is more concerned about input materials and output materials based typology while provide ECC for industrial development.

DoE classification of industries helps the urban authority to take decision properly for providing the 'NOC' as 'environmental clearance' and also charging fee rationally for that. In practical, proper classification makes easy for the concerned authority to overcome the problem of environmental degradation with limited resources at municipal level. The author has stated in details this typology in the following paragraph.

The DoE follows the 'Environmental Conservation Rule, 1997' to categorize the industry based on location and environmental impact. Environmental impact is determined by input materials and output materials. According to the schedule -1 of the 'Environmental Conservation Rule, 1997', industries are classified into four types such as Green, Orange-A, Orange-B and Red. The illustration of this typology for existing industries in Sreepur municipality following **annex-A** is shown in table 4.2;

Table-4.2: Distribution of industries in Sreepur municipality according to DoE classification and investment typology used by Trade License section.

DoE type	Investment type			Total (%)
	Small (%)	Medium (%)	Large (%)	
Green	07 (21.21)	00 (0.0)	00 (0.0)	07 (5.73)
Orange-A	26 (78.79)	09 (56.25)	02 (5.4)	37 (30.33)
Orange-B	00 (0.0)	05 (31.25)	45 (61.64)	50 (40.98)
Red	00 (0.0)	02 (12.5)	26 (35.62)	28 (22.95)
Total	33 (27.05)	16 (13.06)	73 (59.84)	122 (100)

Source: Sreepur municipality office, August 2010 and DoE, September 2010

From the above table 4.2, it is seemed that about 60% industries are large and among large industries 61.64% are orange-B and 35.62% are red. Table 4.2 also illustrated that 40.98% industries are orange-B and 22.95% industries are red and only 5.73% industries are identified as green that indicate the vulnerability of the built environment in Sreepur municipality.

Figure 4.2 shows the spatial distribution of existing industries in Sreepur municipal area based on DoE category and investment type.

From the figure 4.2, it is illustrated that all red and Orange-B types industries are located in ward no-5, 7, 8, 6 and 4. For better scope of employment opportunity, people from other districts migrate to Sreepur municipality and settle themselves in the ward no-5, 7, 8, 6 and 4. As a result, the population densities of these wards are also higher than other wards in Sreepur municipality (Sreepur municipality, 2010). So, ward no-5, 7, 8, 6 and 4 are getting more urban characteristics due to rapid structural changes in built environment. Therefore, ward no-5, 7, 8, 6 and 4 are more vulnerable than other wards in Sreepur municipal area. Sreepur municipality should give more attention as early as possible to reduce the environmental degradation in these wards through proper management practices.

4.3 DEVELOPMENT TREND OF EXISTING INDUSTRIES

Almost all previous industrial policies of Bangladesh encouraged the development of export oriented textile industries in local area. Consequently, a number of textile industries as well as other types of industries such as ceramics industries, feed mills, food products, aluminum and plastics, poultry and hatcheries, handicrafts and cottage, and saw mills have been established in suitable local area over the last decade. In total, 122 industries have been established in Sreepur municipal area during 2004-2009. Among 122 industries, maximum numbers are textile and dyeing industries which produce huge wastes to water and air. Day by day, number of textile and dyeing industries are increasing. At present, there are also numbers of municipalities in Bangladesh which are facing environmental threat for living of human being. In the latest industrial policy-2010, development of the environment friendly and more workforce oriented industries (i.e. small and cottage industries, hi-tech and agro-based industries) are highly encouraged in local area.

For environmental management aspect and forecasting the impact on surrounding built environment in future, the trend of industrial development is very much essential. The development trend of industries in Sreepur municipal area during 2004 to 2009 based on limited company or proprietor ownership is shown in below figure;

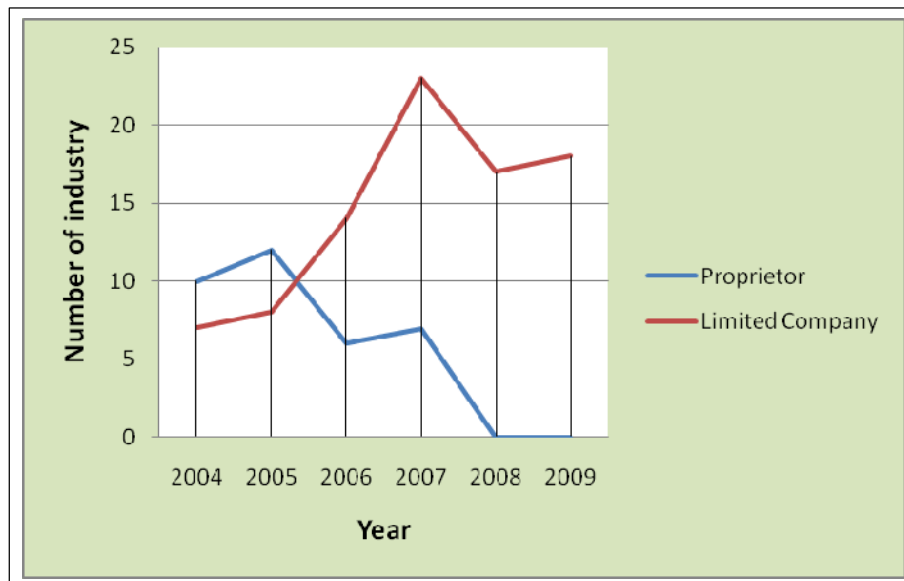


Figure-4.3: Development trend of proprietor or limited company owned industries, 2004-2009.

From the above figure 4.3, it is found that number of industry of limited company increased gradually during 2004 to 2009. Generally, investment capacity of limited company ownership is more than proprietor ownership and day by day, investment of limited company will gradually increase for more outputs in future. Apparently, more outputs produce more wastes which create more threat to environment.

The development trend of industries in Sreepur municipal area during 2004 to 2009 based on DoE category is shown in below figure;

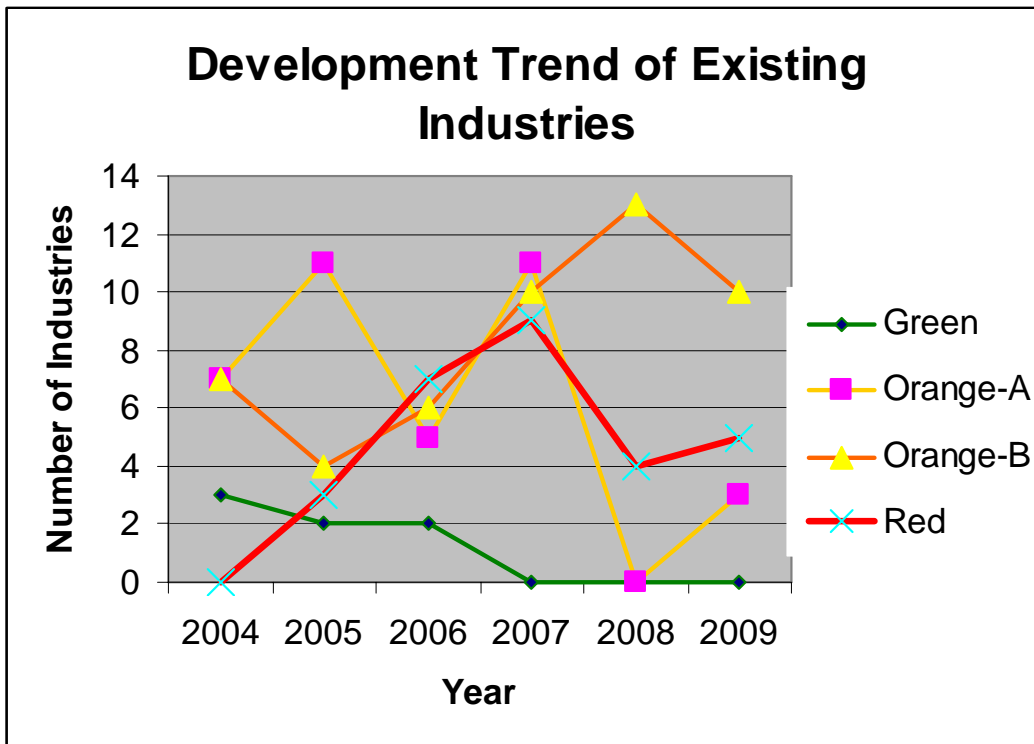


Figure-4.4: Development of DoE categorized industries in Sreepur municipality, 2004-2009.

From the above figure 4.4, it is also found that number of Red, Orange-B and Orange-A industries which are more threat to environment increased gradually over last five years. The figure also highlights the fact that the importance of 'NOC' is rising progressively for environmental management in Sreepur municipality. Through 'NOC' mechanism for setting industry, Sreepur municipality can ensure the establishment of effluent treatment plant (ETP) or anything else to control the environmental degradation in municipal area.

4.4 SPATIAL ANALYSIS OF EXISTING INDUSTRIES

Spatial location is a very important feature for industrial development. The pace of industrialization largely depends on suitable location of industry unit. A suitable location for industry setting always considers the good transportation system, continuous market demand and good accessibility. Spatial distribution of industries has also significant influence on urban growth. The urban growth pattern of the Sreepur municipality is controlled and accelerated following the industrial development. Environmental adverse impact can be diversified and the environmental degradation can be spread to urban citizens based on the spatial distribution of the industries. Thus, spatial distribution of industry is a vital factor regarding environmental management practices in urban area.

There are some important factors in Sreepur municipal area which influenced the choice of location for the industrial development. Dhaka-Mymensingh highway and Dhaka-Mymensingh railway line passes over the Sreepur municipal area. So, Sreepur municipality has good transportation system with other districts of the country. For better transportation system, carrying cost of raw materials and production materials is comparatively low and still there is sufficient land availability for industrial development. Moreover, Sreepur municipality is located near capital city Dhaka as well as another greater city Mymensingh that make great scope of marketing.

Basically, municipal area is divided into several wards. According to the gazette notification for declaration of Sreepur municipality, there are nine wards in Sreepur municipality. A table for distribution of existing industries in the nine wards of Sreepur municipality and their ownership pattern is enclosed as annex-C in **page no 84**. From the annex-C, it is also mark able that some wards (ward no-5, 7, 8, 6 and 4) have high concentration and most of the limited company type industries have been established over there .On the other hand, some other wards (ward no-3, 2, 1 and 9) have less concentration whereas most of the industries are proprietor ownership type. Generally, it is assumed that high concentrated area is environmentally more vulnerable than less concentrated area. The intensity of vulnerability of environmental degradation also can be determined by the density pattern of industries in concentrated wards.

According to the ward-wise distribution, the author has analyzed the density pattern of existing industries using average nearest neighbor method of Arc GIS 9.2 software to show whether the industries are cluster, random or dispersed. The output of average nearest neighbor analysis of existing industries for ward no.5 is shown in the figure 4.5 where the index (Observed mean Distance / Expected Mean Distance) is less than 1 and it is 0.77.

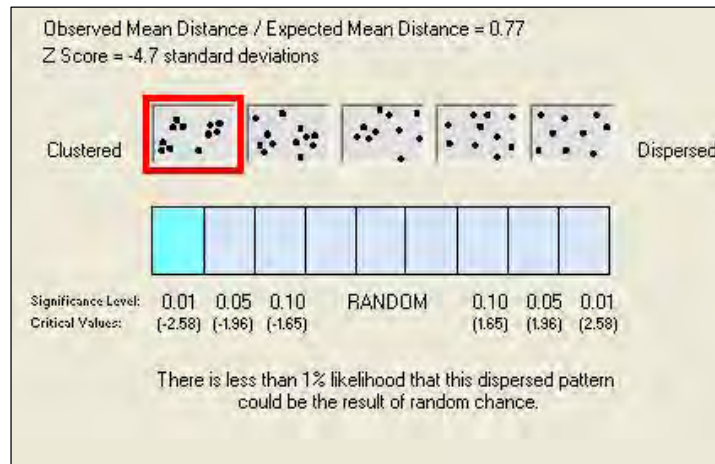


Fig 4.5: Average nearest neighbor analysis of industries for ward no 5

Hence the index is less than 1, the pattern exhibits clustering. The Z score -4.7 indicates how far and in what direction, existing industries deviates from their distribution's mean, expressed in units of its distribution's standard deviation.

The output of ANNA of existing industries for ward no 7 and 8 are almost same which is shown in the figure 4.6 where the index (Observed mean Distance / Expected Mean Distance) is less than 1 and it is 0.89.

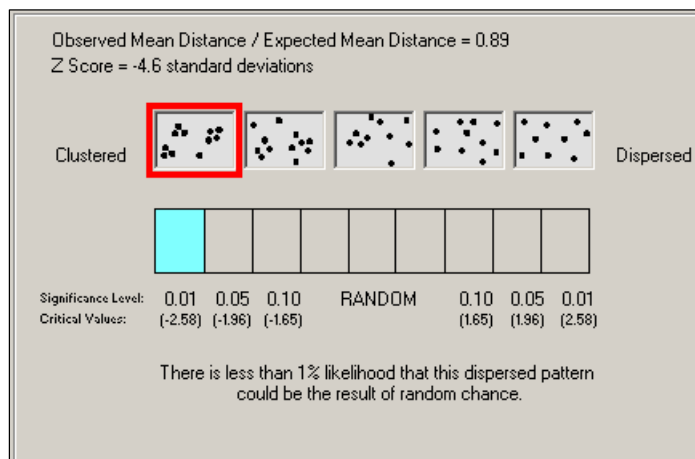
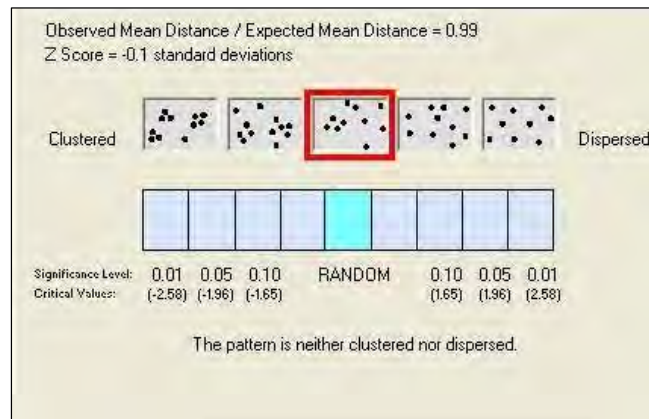


Figure 4.6: Average nearest neighbor analysis of industries for Ward no 7 and ward no 8

Hence the index is less than 1, the pattern exhibits clustering. The less the Z-score value of existing industries, the more the concentration of existing industries. The Z-score value - 4.6 standard deviations indicates that most of the existing industries are clustered in some particular places.

Figure 4.7 shows the output of ANNA of existing industries for ward no 4 where the index is around 1. Hence the index is almost equal to 1, the pattern exhibits neither clustered nor dispersed compared to the random as a whole.

Fig 4.7: Average nearest neighbor analysis of industries for Ward no 4



The Z score value is -0.1 which is around 0, also indicates that the distance of all existing industries from their mean is near to the average distance.

Figure 4.8 shows the output of ANNA of existing industries for Ward no 6 where the index is around 1.03. Hence the index is almost equal to 1, the pattern exhibits neither clustered nor dispersed compared to the random as a whole. The Z score value is 0.3 which indicates that the distance of all existing industries from their mean is not near to the average distance.

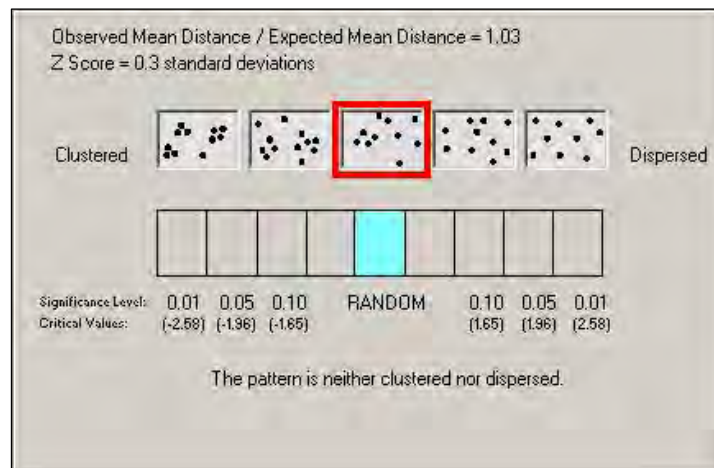


Fig 4.8: Average nearest neighbor analysis of industries for Ward no 6

Table 4.3 shows the result of average nearest neighbor analysis of existing industries in Sreepur municipal area.

Table 4.3: Result of average nearest neighbor analysis of existing industries

Ward No	Result
01	Dispersed
02	Dispersed
03	Dispersed
04	Random
05	Clustered
06	Random
07	Clustered
08	Clustered
09	Dispersed

From the findings of the a ANNA of existing industries, it is evident that ward no.5, 7 and 8 are more vulnerable than other wards for living in Sreepur municipality as well as ward no. 4 and 6 are also vulnerable due to further industrial development. So, the municipal authority should give more emphasize to control the environmental degradation in these vulnerable wards.

CHAPTER-05

INVESTIGATION OF THE PROCESS OF PROVIDING ENVIRONMENTAL CLEARANCE

5.1 INTRODUCTION

Industrial development significantly generates the wastes to the surrounding built environment in the urban area. Consequently, industrial waste disposal is one of the major concerns regarding environmental management for the municipality. Generally, municipality provides 'No Objection Certificate (NOC)' as 'environmental clearance' prior to set any industry within its jurisdiction area. Virtually, the 'NOC' is the only mechanism for conservation of the built environmental from the negative consequences of industrial development in municipal area. Thus, the process of providing 'NOC' is very important function regarding environmental management practices in the municipality. An investigation on the process of providing 'NOC' as environmental clearance has been carried out in Sreepur municipality during September-October 2010.

5.2 PROCESS OF PROVIDING ENVIRONMENTAL CLEARANCE

In order to get 'NOC' the entrepreneur of the proposed industry collects an application form from the municipality office and submits the filled-up application form along with the required documents. According to the Sreepur municipality, the application form for getting 'NOC' is the 'by-laws' for the process of providing 'NOC' as 'environmental clearance' for setting industry in municipal area. An application form for getting 'NOC' is enclosed as annex-D in **pages no 85-86**. The entire process of providing 'NOC' to the applicant is divided into several steps. The municipal-authority takes about 30 days to complete the entire process provided that the submitted documents are acceptable. Figure 5.1 explains the whole process of providing 'NOC' at Sreepur municipality.

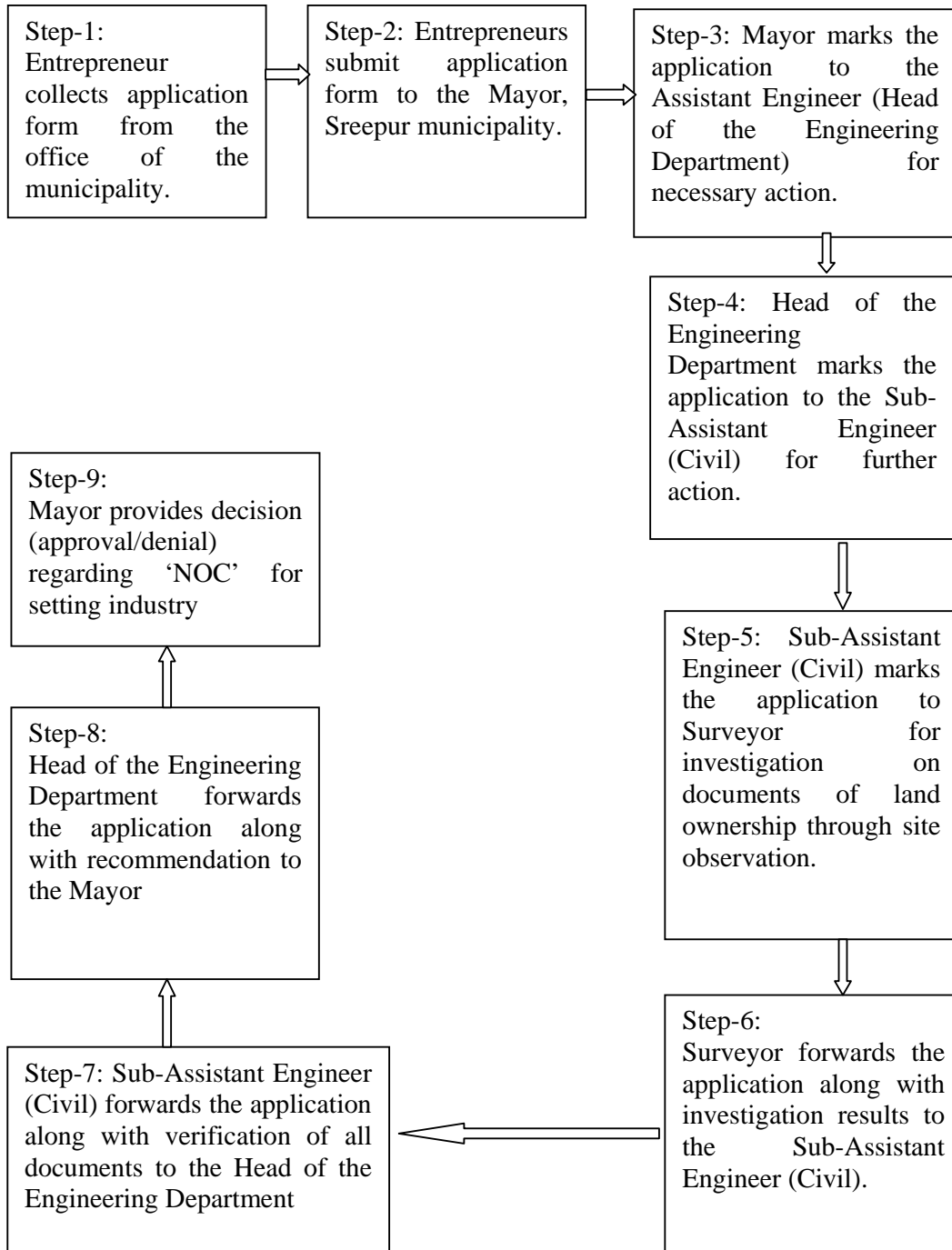


Figure-5.1: Flow diagram explaining the process of providing 'NOC'

Following documents are required to enclose with the application form for getting 'NOC':

1. Deed of land ownership or agreement for rented / leased land
2. Duplicate carbon record and kharij parcha
3. Mouza map / location map
4. Boundary demarcation certificate
5. Photocopy of tax payment receipt
6. Money receipt (NOC fee Tk. 200 per decimal)
7. Two photos of the entrepreneur
8. Clearance from surrounding land owners
9. Undertaking regarding environmental issues

5.3 INVESTIGATION ON SUBMITTED DOCUMENTS

In total, 90 large and medium industries are enlisted in the office register of Sreepur municipality to provide 'NOC' during the period of 2004-2009. These industries may have significant negative environmental impact on the surrounding built environment. An investigation has been done using a checklist of the required documents with the application form for 'NOC'. During the investigation, the variables⁵ of checklist are selected mostly considering the environmental management aspects. Table- 5.1 shows a list of variables.

Table- 5.1: List of the variables in investigation checklist

Sl. No	Variables	Sl. No	Variables
1	Origin of Investor	7	Input & Output Materials
2	Land Ownership	8	DoE type
3	Mouza/Location map	9	ETP Layout
4	Site Plan	10	Undertaking Regarding Environment
5	Structure Type	11	Clearance from Surrounding Land Owners
6	IEE report	12	Report on Site observation

From the variable list, it is expected that documents of serial number 6-13 should have with the application form. The findings of investigation are enclosed as annex-E in **pages no 87-93**.

⁵ **Variable:** Subject of document which is required with application form for 'NOC'.

5.4 FINDINGS FROM INVESTIGATION

The findings of the investigation have been summarized in the table no 5.1. It is clearly found from the table 5.2 that the applications do not accompany all the required documents. The investigation also reveals some critical issues regarding environmental management practices in Sreepur municipality. These are briefly discussed in the following paragraphs.

Table- 5.2: Summary findings of the investigation

Variables	Category/Availability	Frequency	Percentage
Origin of Investor	Local	71	78.9
	Home	16	17.8
	Foreign	3	3.3
Land Ownership	Owned	89	98.9
	Lease	1	1.1
Mouza/Location map	Yes	23	25.6
	No	67	74.4
Site Plan	Yes	4	4.4
	No	86	95.6
Structure Type	Yes	3	3.3
	No	87	96.7
IEE report	Yes	00	00.00
	No	90	100.0
Input & Output Materials	Yes	00	00.00
	No	90	100.0
DoE type	Green	6	6.7
	Orange-A	19	21.1
	Orange-B	51	56.7
	Red	14	15.6
ETP Layout	Yes	00	00.00
	No	90	100.0
Undertaking regarding Environment	Yes	16	17.8
	No	74	82.2
Clearance from surrounding land Owners	Yes	9	10.0
	No	81	90.0
Report on Site observation	Yes	71	78.9
	No	19	21.1

Source: Investigation finding, August 2010

5.4.1 Origin of the Investor

Investors are defined based on their own settlement. There are three types of investors namely local, home and foreign. Investor who lives in Sreepur Upazila and Gazipur district is called local. Investors who came from outside the Gazipur district is called home

and investor who came from abroad is called foreign. During investigation, it is found that most of the investors (78.9%) are local, 17.8% investors are home and only 3% investors came from abroad. Such a huge share of local investors in the studied municipality can be both the strength and weakness of the municipal authority while particularly environmental management practices are the concern. Being more conscious about their surrounding environment, these local entrepreneurs may guide the municipal authority for efficient and time befitting environmental management practices. On the contrary, these people may even exploit the system for the sake of their own benefit, usually being inconsiderate to the benefits of the commons.

5.4.2 IEE Report and Effluent Treatment Plant (ETP) Layout

The 'Department of Environment' provides the IEE report that reveals the types of industry as per DoE classification. From the previous chapter, it is found that Sreepur municipality does not follow any classification of industries based on environmental impact. Initial Environmental Examination (IEE) report can be a source for Sreepur municipality to know about the actual environmental impact on surrounding built environment for industrial development. In fact, these reports disclose the necessity of ETP while setting industry. So, the IEE report is very crucial while providing 'NOC' regarding environmental management practices. It is found from the table 5.2 that no entrepreneur submitted the IEE report and the layout document of ETP for getting 'NOC'. Virtually, Sreepur municipality can't enforce for establishment of ETP without IEE report during field investigation. Thus, the personnel involve for field investigation getting under pressure and taking the scope for malpractices.

5.4.3 Undertaking Regarding Environment

A single page document named undertaking regarding environment issue is required with the application form for getting 'NOC' to set up industry in municipal area. Based on table 5.1, it is found that only 15% entrepreneurs (16 out of 90) submitted the undertaking. In reality, these 15% entrepreneurs submitted the undertaking on the company's pad stating a commitment to the municipal-authority that industry will not discharge any waste to the environment and therefore the surroundings will be free from pollution.

Figure-5.2 shows a sample of undertaking of a sweater company regarding environment issue.

YOUR FASHION SWEATER LTD
6/A, Nakshi Tower, 6/D, Topkhana Road, Segun Bagicha, Dhaka-1000.

Ref: Date:

অঙ্গিকার নামা

এই মর্মে প্রত্যয়ন করা যাইতেছে যে, প্রস্তাবিত ইয়োর ফ্যাশন সুয়েটার লিঃ, অবস্থান -গিলারচালা, শ্রীপ
গাজীপুর, একটি সুয়েটার উৎপাদনকারী প্রতিষ্ঠান। উক্ত প্রতিষ্ঠানের উৎপাদনকালীন সময় কোন প্রকার বর্জ নির্গত হ
না এবং অন্য কোন উপায়েও পরিবেশ দূষিত হবে না।

অত্র প্রতিষ্ঠান দ্বারা যদি পরিবেশের কোন প্রকার ক্ষতি হয় অথবা ক্ষতির কারণ হয় তাহলে আমরা যথাযথ কর্তৃপ
আইন মানিয়া চলিতে বাধ্য থাকিব।

YOUR FASHION SWEATER LTD
[Signature]
(এ, কে, এম, ফরিদুল ইসলাম)
ব্যবস্থাপনা পরিচালক

Figure-5.2: Undertaking by a sweater company regarding environment issue
(Source: Sreepur municipality office, 2010)

From the figure 5.2, it is evident that, there is no single word in the undertaking specifies the industry type as per DoE category, even not municipality type. The date and reference number of company pad for undertaking are not mentioned by the entrepreneur. Virtually, the undertaking is not justified for environmental management practices because entrepreneur itself made the commitment which does not cover all parameters of environmental management aspect. Consequently, the municipal-authority cannot predict the actual environmental impact in municipal area.

5.4.4 Clearance from Surrounding Land Owners

Entrepreneurs are supposed to submit a clearance certificate from the surrounding land owners for getting 'NOC' to set up an industry in the municipal area. Based on table 5.1, it is found that only 10% entrepreneurs (9 out of 90) submitted CCSLO. In the clearance certificate, entrepreneur collects the signs of surrounding land owners on the company's pad to ensure no objection against industry set up and submits it with the application to the municipal-authority. Figure-5.3 shows a sample of clearance certificate of a sweater company from surrounding land owners.

YOUR FASHION SWEATER LTD
6/A, Nakshi Tower, 6/D, Topkhana Road, Segun Bagicha, Dhaka-1000.

Ref: _____ Date: 10/12/05

অঙ্গিকার নামা

এই মর্মে প্রত্যয়ন করা যাইতেছে যে, আমরা প্রস্তাবিত ইয়োর ফ্যাশন সুয়েটার লিঃ, অবস্থান - গিলাবঢাল শ্রীপুর, গাজীপুর এর চারপাশে বসবাসকারী প্রতিবেশী । উক্ত ইয়োর ফ্যাশন সুয়েটার লিঃ একটি সুয়েটার প্রতিষ্ঠান এখানে উক্ত প্রতিষ্ঠান স্থাপনায় আমাদের বর্তমান ও ভবিষ্যতে কোন প্রকার আপত্তি থাকিবেনা মর্মে নিম্নস্বাক্ষরকারী প্রতিবেশীগণ ঘোষণা করিতেছি ।

প্রতিবেশীগণ :

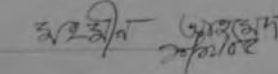
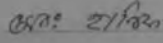
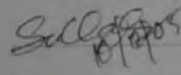
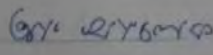
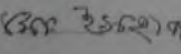
১। মোঃ মহসিন আহমেদ	
২। মোঃ হান্নিফ	
৩। মোঃ শহীদ	
৪। মোঃ খালেদ	
৫। মোঃ ইসহাক	

Figure-5.3: Clearance certificate from surrounding land owners.

(Source: Sreepur municipality office, 2010)

Here, it should be mentioned that the municipal authority has no guidelines regarding the clearance issue. From figure-5.3, it is found that CCSLO is not specified by location. The author visited the surroundings of the industry to verify the clearance issue.



Figure-5.4: Surroundings of the Your Fashion Sweater Ltd

During field verification, the author has talked with surrounding land owners. Among them, Mohasin Ahmed is partner of the industry entity. Findings from the field verification are stated in table-5.2;

Table- 5.3: Result of field verification on submitted clearance certificate

Surroundings	Land owner	Clearance
North	Md. Abdul Hanif	No
North-East	Md. Esaque	No
South	Mohasin Ahmed	Yes
West		
East	Abdul Khaleque	No

From the conversation with surrounding land owners, it is evident that submitted document regarding clearance has been manipulated by the industry entrepreneur.

5.4.5 Report on Site Observation

There is an issue in the application form that after submission of the documents for getting NOC for industry setting, municipal authority will verify the documents through site observation by responsible staffs and prepare a report for further necessary action. From the table 5.1, it is evident that there is no site observation report with any single approved application for 'NOC'. Even, environmental concern is completely absent in the site observation which is found in file note. Figure-5.5 shows a sample of file note in the process of providing 'NOC'.

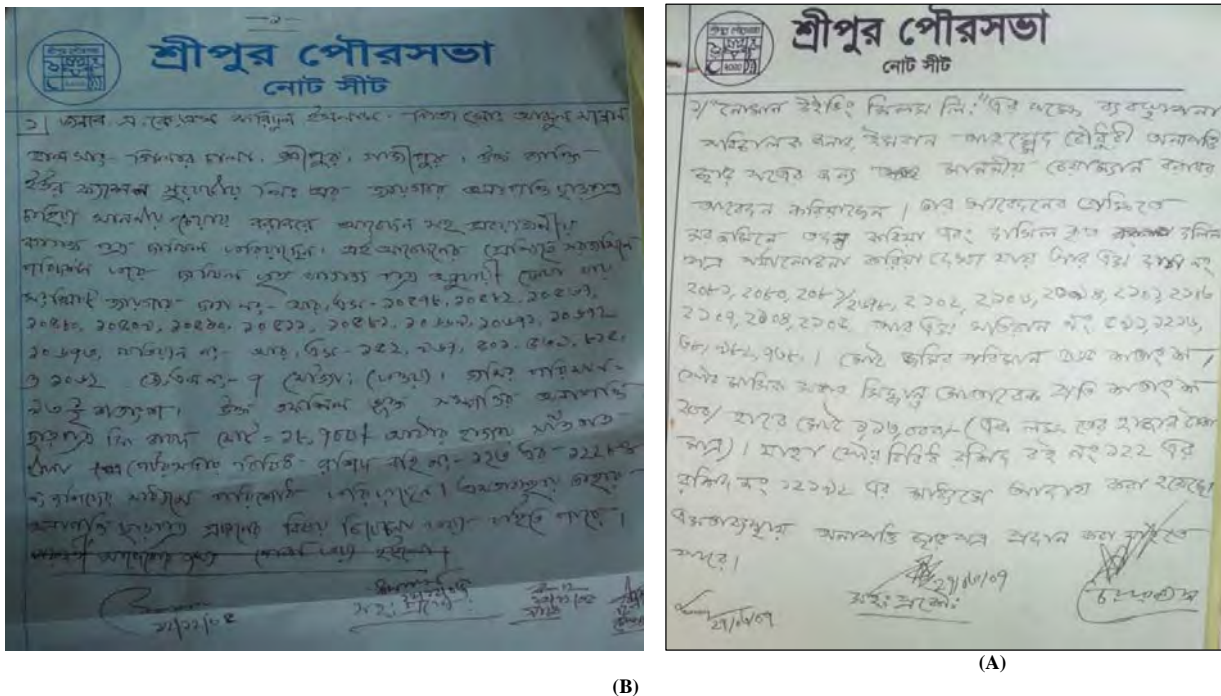


Figure-5.5: File notes on site observation between two years' time interval.
(Source: Sreepur municipality office, 2010)

In file note (A), there is signature of secretary, but in file note (B) signature of secretary is absent. The irregular operation in file approval procedure is ultimately evident at municipality level while providing “NOC” as environmental clearance.

5.4.6 Observation on No Objection Certificate (NOC)

After approval of the application, Sreepur municipality provides a No Objection Certificate (NOC) as environmental clearance to the entrepreneur for setting industry in municipal area.

Figure-5.6 shows a sample of No Objection Certificate (NOC) which Sreepur municipality provides to the industry entrepreneur;

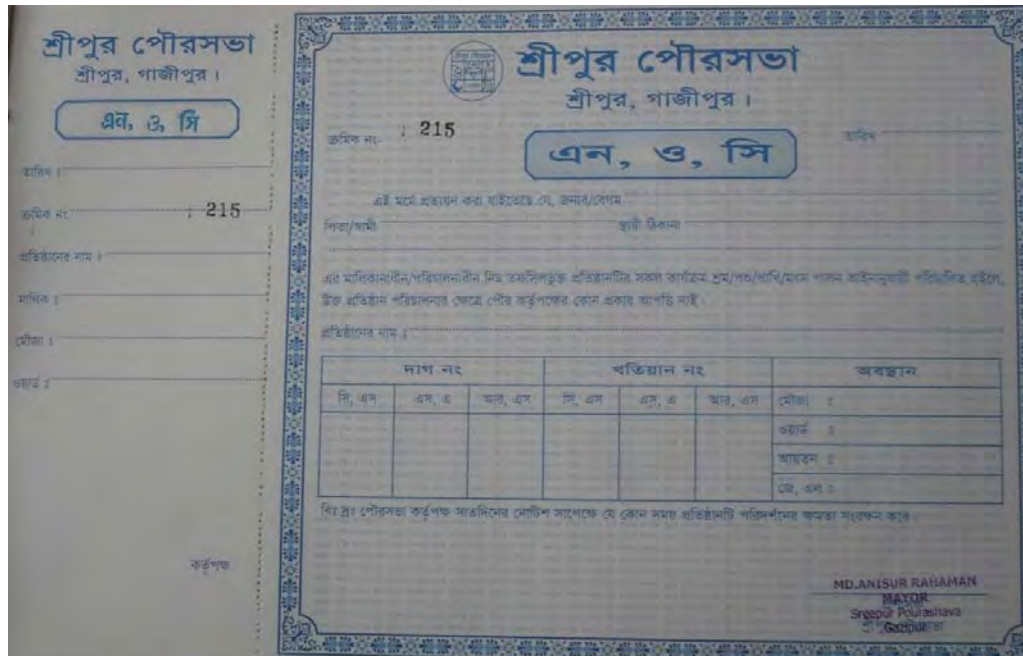


Figure-5.6: A sample of No Objection Certificate (NOC)

Although, Sreepur municipality is providing NOC regarding environmental clearance, but from figure-5.6, it is clearly observed that there is no single word in respect of environmental rules and regulation in No Objection Certificate (NOC).

5.4.7 General Observation

While summarizing the findings, it is evident that most of the entrepreneurs did not properly submit URE and CCSLO. Besides, report on site visit in file note is almost similar for all applicants. Sreepur municipal authority has no legal framework to monitor the process of providing 'NOC'. As, industrial holding tax is the main source of revenue earning of Sreepur municipality, so, local investors are influencing the process of providing 'NOC'. Accordingly, Sreepur municipality provided the 'NOC' for industry set up considering self-styled URE and CCSLO. Thus, malpractices are being taken places in the process of 'NOC' providing in Sreepur municipality. Consequently environmental degradation is increasing in industrial density area of Sreepur municipality.

CHAPTER-06

STRENGTH AND WEAKNESS OF ‘NOC’ PROCESS IN SREEPUR MUNICIPALITY

6.1 INTRODUCTION

Despite the strong support for local government enshrined in the national constitution (Chapter 3, Article 59), most of the municipalities in Bangladesh are very weak and irregular to perform its functions owing to the acute paucity of funds caused by poor collection of taxes, institutional strength, management system and capacity development. (UNESCAP, 2001). Therefore, the assessment of the strength and weakness of ‘NOC’ process in the industrial pre-dominating municipalities is very important issue for environment friendly industrial development.

Sreepur is newly established and the largest industrial pre-dominating municipality in Bangladesh. Still, apart of land in some wards of Sreepur municipality is reserved for upcoming industrial development. In Sreepur municipality, the urban growth rate is very high that seems almost twice of the average urban growth rate of national level (Sreepur municipality, 2010). Consequently, ‘NOC’ providing as an environmental clearance is a major concern of SM to preserve the built environment sound for its citizens. So, figure out the strength and weakness of Sreepur municipality in the operation of ‘NOC’ process is one of the key outcomes of this study. The author has stated the strength and weakness of Sreepur municipality in this chapter analyzing the findings from direct interview of the municipal staff, institutional framework, human resources, strategic approach and capacity development, link between national and local government, and public participation.

6.2 INTERVIEW OF MUNICIPAL-STAFF

The author has taken a direct interview (one to one) of the municipal staff on the process of providing ‘NOC’ in Sreepur municipality. The findings from interview illustrated the real strength and weakness of Sreepur municipality for environment friendly industrial development. At present, four tiers of municipal staff such as Surveyor, Sub-assistant

Engineer (Civil), Assistant Engineer and Mayor are involved in the process of 'NOC' providing regarding environmental management practices while setting industry. Interview has been taken from these 4 desks on their role while managing environment at the municipal area. A sample of interview questionnaire is enclosed as annex-F in pages no 94-101. The author has accommodated the interview findings in the following paragraphs;

6.2.1 Desk-I: Surveyor

Surveyor is responsible to verify the documents of land ownership in the process of providing 'NOC'. He acts his role depending on submitted documents and through field visit. During field visit, he verifies the given information on plot area, plot boundary of the proposed industry. He is the only surveyor of Sreepur municipality and most of the office hour, he engages with other dealings of land. He receives 2/3 applications in a month getting 'NOC' for industry set up in municipal area. For an application, he needs at least one week. He stated that logistic supports such as equipments for land measurement and vehicles for field visit are insufficient. So, he does not work properly in the process of providing 'NOC' for lack of time and lack of sufficient logistic supports. He proposed for recruiting at least one more surveyor and some support staffs as well as providing logistic supports.

6.2.2 Desk-II: Sub-Assistant Engineer (Civil)

Sub-assistant engineer is responsible to confirm the availability of specific documents (i.e. undertaking regarding environment and clearance from surrounding land owners) with the application form regarding environmental management aspect. If any document is not available with the application, municipal authority sends letter to the applicant to submit that document. He stated that there are nine steps in the entire process of providing 'NOC' at Sreepur municipality and the entire process is completed within 30 days. He is also designated to verify documents of site plan and location map through field visit. He mentioned that there is no prescribed format for both the undertaking regarding environment and clearance from surrounding land owners. The entrepreneurs submit these documents using own company's pad. He stated the requirement of prescribed format with the application form for both undertaking regarding environment and clearance from surrounding land owners keeping important key parameter of environmental management aspects.

6.2.3 Desk-III: Assistant Engineer

Assistant engineer is the head of the 'Department of Engineering' at Sreepur municipality. He is responsible to justify the specific documents regarding environmental management practices in the process of 'NOC' providing for industry set up in municipal area. The mandatory issues in the undertaking are establishment of ETP and discharge of waste water through proper drainage system. After verification, he gives recommendation to the mayor to approve/deny the application providing 'NOC' for industry set up. He stated that presently, there is no 'Environmental Management Plan (EMP)' for environmental management practices in Sreepur municipality. But, there is an ongoing process to prepare 'Master Plan' including Land Use Plan (LUP) and 'Drainage and Environmental Management Plan' for Sreepur municipality under LGED. Lack of MP the municipal authority can't take legal action against the entrepreneur if they violate over the undertaking regarding environment issue and clearance from surrounding land owners. He identified some limitations (institutional weakness, lack of skilled manpower, lack of monitoring, lack of coordination with national relevant agency and lack of public participation) in the process of 'NOC' providing for environmental management practices in SM. He proposed to prepare the strategic plan such as EMP for municipality as early as possible including prescribed format for both undertaking regarding environment and clearance from surrounding land owners, incorporation of separate section for environmental management practices under the 'Department of Engineering', recruitment of skilled manpower, availability of logistics support. He suggested arranging the training programs by national agencies (DoE) for capacity development of municipal staff on environmental management practices and take initiatives for awareness development programs to activate public participation as the associate legal framework in the process of providing 'NOC' and monitoring the industrial development in local area.

6.2.4 Desk-IV: Mayor

Mayor is the head of the municipal authority to approve/deny the application for providing the 'NOC' while setting industry in the municipal area. He considers the application of 'NOC, based on the recommendation from the head of the engineering department, recommendation by municipal-councilor and availability of updated municipal-tax receipt. He stated that the municipal-parishad is newly elected. He thinks, Sreepur municipality has not enough strength to control the environmental degradation in municipal area. He

mentioned some problems of SM particularly in institutional framework, lack of human resources for monitoring industrial development, role of public participation, lack of coordination with national relevant agency). Hence, he stated the necessity of strengthening the role of municipality for environmental management through updating the institutional framework; incorporate a separate department for planning and development, recruitment of skilled manpower and good coordination with national agencies (Do E).

6.3 INSTITUTIONAL FRAMEWORK

Municipality is governed by elected municipal-parishad and there is another institutional framework namely organogram of municipal-staffs to activate the functions of the municipality. Despite having the autonomy of urban local governments, still the central government has control over local government and most administrative decisions still remain to be taken centrally. Though the central government updated ‘Pourashava Ordinance 1977’ to the ‘Local Government ordinance May, 2008’ and present parliamentary government amended to the ‘Local Government (Municipality) Act October 2009’. But, still municipality is following the organogram which was developed with ‘Pourashava manual 2003’ under ‘Pourashava Ordinance’1977’. According to the ‘Pourashava Ordinance’1977’, there are five categories of municipalities such as special municipality, class-A.1 municipality, class-A.2 municipality, class-B municipality, class-C municipality and every category has separate organogram in Pourashava manual 2003 (LGED, 2003). Sreepur is class-B category municipality. The organogram of Sreepur municipality has been shown in figure 6.1;

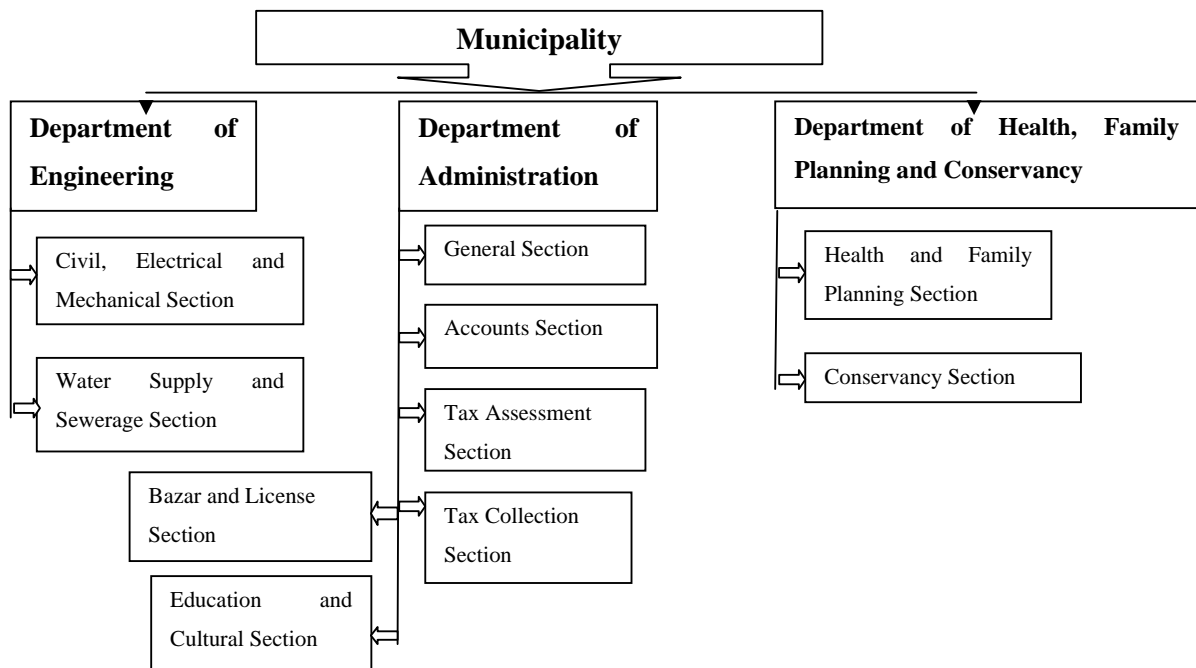


Figure-6.1: Organogram of the Sreepur municipality
(Source: Municipal Manual, 2003)

The figure 6.1 illustrated that there are several sections under engineering department but there is no separate section for environmental management practices in Sreepur municipality.

6.4 HUMAN RESOURCES

Municipalities in Bangladesh are managed by a combination of elected people and appointed personnel. The mayor and councilors of the municipal parishad, including women, are all elected by direct vote of urban citizens. In the case of the appointed personnel at municipality, there is both staffs directly recruited by the municipality and concerned ministry as well as some sent on deputation from the central government (UNESCAP, 2001). According to the current organogram, figure 6.2 shows the skilled staff for engineering department at Sreepur municipality.

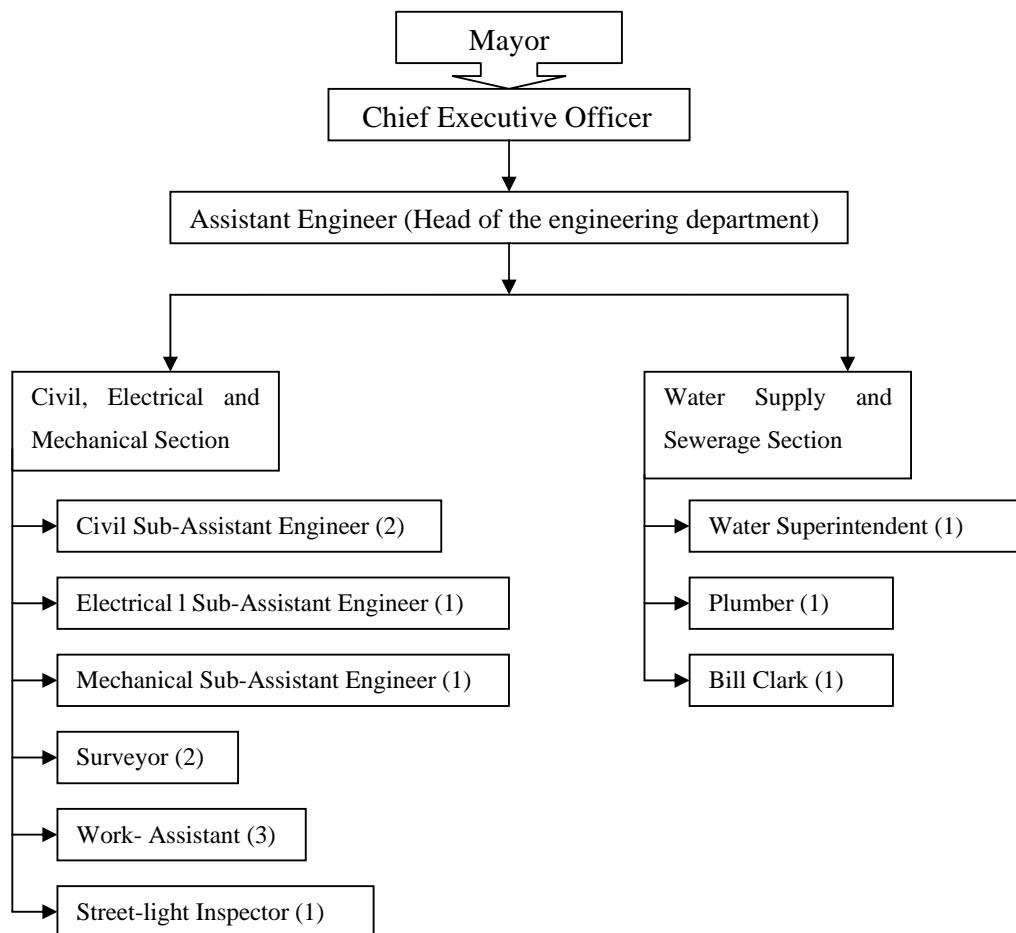


Figure 6.2: Skilled staffs for engineering department at Sreepur municipality. (Source: Municipal Manual, 2003).

From the above legal frame work of human resources for engineering department, it is evident that there is no scope of relevant skilled manpower for environmental management practices at Sreepur municipality. From the outcome of direct interview of municipal staff at Sreepur municipality also reveals that at present four municipal staff of three types (Assistant Engineer, Sub-assistant Engineer and Surveyor) in civil section are involved in the process of providing 'NOC' while setting industry in Sreepur municipal area.

6.5 STRATEGIC APPROACH FOR CAPACITY DEVELOPEMNT

Sreepur municipality has only two dimensions in environmental management practices; the process of 'NOC' for industrial development and another for solid waste management system. Reviewing the annual budget of Sreepur municipality, it is found that the process of 'NOC' is one of the revenue sources. But, there is no budget allocation in annual development fund for the preparation of strategic plan like 'Environmental Management Plan (EMP)' and even, Sreepur municipality has no annual program for the capacity development of municipal staff involved in the process of providing 'NOC' for environmental management practices (Sreepur municipality, 2009).

6.6 LINK BETWEEN NATIONAL AND LOCAL GOVERNMENT

Reviewing the industrial policies, it is found that national government updated the industrial policies for sustainable economic development of the state and increasing the motivation in every industrial policy to establish more environment friendly industries in local level. But, the role of local government in the policy making and implementation is neglected. In past, national government took some initiative for the protection of the built environment. In fact, the role of local government is not well-oriented about those initiatives. The local government provides 'NOC', trade license and lay-out plan approval as per requirement of the 'Department of Environment' to provide the 'Environmental Clearance Certificate (ECC)' for setting industry. But, the DoE has no coordination with municipality regarding environmental management practices in municipal area. According to the interview findings, the 'Department of Environment' does not communicate with the municipality verify their requirement by the local government.

6.7 PUBLIC PARTICIPATION

In reality, citizens are beneficiaries or victims of the industrial development in urban area. So the role of public participation is very important factor for environmental management practices in municipal area. In Local Government (Municipality) Act, October 2009, there are two legal frameworks such as 50 members town level coordination committee (TLCC) in the municipality level and 10 members ward level coordination committee (WLCC) in ward level to ensure public participation in development activities of the municipality. However, in the past years, the spirit of people's participation in local bodies was not always adequately maintained and there is lack of awareness about the environmental management aspects. Frequent changes in the local government structure are partly responsible for this (UNESCAP, 2001). At present, there are three committees for public participation in Sreepur municipality such as TLCC at town level, WLCC at ward level and recently formulated a 12 members community based organization at mahalla level under 'Second Urban Governance and Infrastructure Improvement (Sector) Project (UGIIP-2)' (LGED, 2009). Every committee calls meeting to discuss on different issues ensuring development of the municipal area. But, the role of public participation for environmental management practices in municipal area is negligible. Figure-6.3 shows the three committees for public participation in Sreepur municipality.

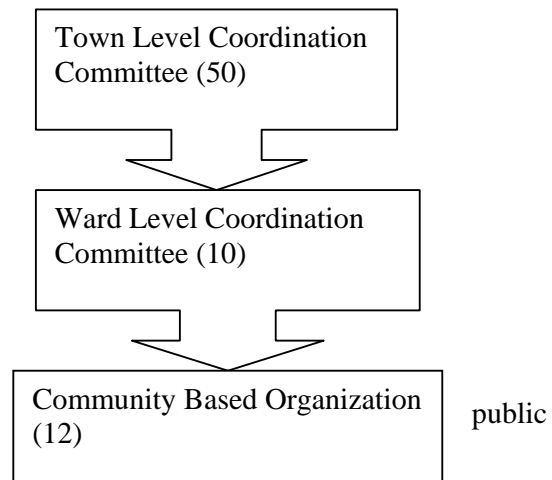


Figure-6.3: Three institutional channels for participation in Sreepur municipality.

6.8 SWOT ANALYSIS

The author has accumulated the findings from direct interview of municipal staffs. Then, based on the interview findings and some important observations during data collection, the author has sort out the strength, weakness, opportunity and threat in the ‘NOC’ process regarding environmental management practices of Sreepur municipality through SWOT analysis. Table 6.1 illustrated the result of SWOT analysis as follows;

Table -6.1: Result of strength, weakness, opportunity and threat analysis

Strength	Weakness
<ul style="list-style-type: none"> • Largest industrial municipality. • Financial solvency through huge revenue earnings from industrial sector. 	<ul style="list-style-type: none"> • There is no Environmental Management Plan, • Backdated institutional framework, • Lack of human resources and unskilled manpower, • Lack of logistics supports. • Poor public participation, • Lack of coordination with national relevant agency.
Opportunity	Threat
<ul style="list-style-type: none"> • Huge potentials for new industrial development. • Newly elected municipal-parishad for decision making. • Strategic plan in upcoming ‘Master Plan’ for environmental management • Make good coordination with DoE • Increasing public participation in monitoring industrial development in local level. 	<ul style="list-style-type: none"> • Rapid unplanned and uncontrolled urban growth. • Increasing the demand of urban facilities. • Lack of skilled manpower • Taking malpractices in the process of ‘NOC’. • No river in municipal area. • Increasing environmental degradation in the municipal area. • Increasing human suffering of urban citizens.

CHAPTER-07

FINDINGS, RECOMMENDATION AND CONCLUSION

7.1 INTRODUCTION

Bangladesh has declared the development vision 2021 for a happy and prosperous nation through transform the country into a middle-income in real term as well as a high human development index country by 2021 (Planning Commission, 2010). Bangladesh's industrialization process will need to be significantly geared up in the coming years if macroeconomic performance targets for vision 2021 are to be achieved. The overarching goal for the country's industrialization is to enhance the industrial sector's contribution to national GDP to 40 percent and in employment to 20 percent over the next decade (Planning Commission, 2010). On the way to achieve the development vision, poverty alleviation is one of the greatest challenges. From the past studies, it is found that industries created a lot of employment opportunities to reduce poverty in Bangladesh (Khan, A. M., 2009).

For a happy and prosperous nation, the Perspective Plan of Bangladesh also adopted the approach for protection and enhancement of the built environment, effectively meeting the challenges arising from the intensifying the climate change and addressing other environmental degradation issues for sustainable economic development. The state of Bangladesh's environment is already very unhealthy and its degradation continues unabated. The major reason for environmental degradation is citizen's behavioural include deforestation, pollution of air, water and land through deposition of industrial effluents (Planning Commission, 2010).

Therefore, the present government has highly emphasized on the development of more workforce oriented and environment friendly industries in the 'Bangladesh Industrial Policy-2010' through decentralization of the location to district level. The 'Bangladesh Industrial Policy-2010' demonstrated some central districts namely Dhaka, Gazipur, Narayangong, Manikgong, Narsingdhi Taingail and Monsigong of Bangladesh.

Based on the better transportation network, Sreepur municipal area in Gazipur district is the most suitable location for further industrial development regarding its location, topographical features and transportation network. Consequently, the new entrepreneurs are well motivated to set up industries as well as some old industries are being shifting in Sreepur municipal area. So, it is expected that the industrial development trend in Sreepur municipal area shall be upward in the next decade. As a result, the built environment of Sreepur municipal area will be degraded with a great threat to citizen's life if continuing present environmental management practices in Sreepur municipality. Therefore, as soon as possible, Sreepur municipality must ensure the effective system in environmental management practices for environment friendly industrial development in municipal area. Hence, the author has realized to summarize the findings of this study to put some recommendations to overcome the drawbacks in the process of 'NOC' providing as 'environmental clearance' regarding environmental management practices in Sreepur municipality. Finally, some concrete statements have been included as concluding remarks.

7.2 SUMMARY OF FINDINGS FROM THE STUDY

The author has summarized the important findings regarding environmental management practices which are outcomes from the analysis of industry typology and spatial distribution in the study area, investigation on the submitted documents with the application form for getting 'NOC' and direct interview of municipal-staff involving 'NOC' process as well as reviewing Industrial policies, the 'Local Government (Municipality) Act October 2009', 'Pourashava manual 2003'. The summary of these findings are stated briefly in the following paragraphs.

7.2.1 Findings from Typology and Spatial Distribution

Sreepur municipality does not follow the typology of industrial policy based on investment amount. Proprietor and Limited company are basic two types of entity which is considered providing 'Trade License'. Limited company has three types (i.e. Small, Medium and Large) based on investment amount. From the 'NOC' register, it is found that Sreepur municipality did not classify the industry based on impact to the surrounding built environment. In practical, there is no link between the 'Department of Environment' and Sreepur municipality regarding industrial typology.

From the development trend of industries, it is seemed that during 2004 to 2009 number of industries which are presumably more polluting and large sized has increased with upward curve. Resulting, the built environment in Sreepur municipal area to be more vulnerable in the upcoming years.

From the 'NOC' register, it is also seemed that most of the existing industries are located nearby the Dhaka-Mymensingh highway which passes through ward no 5, 7 and 8, Mawona-Sreepur road which passes through ward no 8, 6 and 4, and Master bari-Sreepur road which passes through ward no 5, 4 and 2. Consequently, the spatial distribution of existing industries is not same in Sreepur municipality. From the analysis of spatial distribution, it is illustrated that ward no 5, 7, 8 have more concentration with cluster pattern, ward no 6 and 4 have concentration with random pattern and others have less concentration with dispersed pattern.

7.2.2 Findings from Investigation

In light of investigation findings, it is illustrated that only 10-15% industry entrepreneurs submitted the documents on waste management of industry which are manipulated. Although the 'Department of Environment' considers the 'NOC' as the 'Pre-Environmental Clearance' from local government while providing the 'Environmental Clearance Certificate (ECC)' to set industry, in real practices, Sreepur municipality has no mechanism to know the industry type based on environmental impact. The reason behind of this situation is lack of integration within the 'Department of Environment' and Sreepur municipality. Sreepur municipality is more aware about landownership issue and revenue collection by 'NOC' fee rather than environmental management concern. So, Sreepur municipality has provided 'NOC' in same approach for all types of industries. Thus, malpractices are being taken places into environmental management practices in Sreepur municipality.

7.2.3 Findings from Direct Interview of Municipal Staff

Sreepur municipality has no strategic plan including 'NOC' providing for environmental management in municipal area. Even, in the present 'NOC' mechanism, there is no prescribed format for any document of environment concern. There is an ongoing process to prepare the 'Master Plan' including 'Drainage and Environmental Management Plan'.

Only four municipal staff are involved in the process of 'NOC' whose are mostly Unskilled about environmental management aspects. The institutional channels for public participation are not functional for environmental management practices.

Virtually, due to lack of strategic plan and very poor mechanism in the process of 'NOC' providing while industry setting, Sreepur municipality is not capable to take action against industry entrepreneur if environmental degradation is occurred by any industry and apparently, municipal-authority overlooks its responsibilities excusing their limitations in capabilities.

7.2.4 Findings from Institutional Arrangement

Reviewing the industrial policies, it is found that local government has no scope to contribute in the industrial policy making and implementation. The municipality has no legal base to way forward the process of 'NOC' as 'environmental clearance' for industrial development and taking action against the industry because of environmental degradation in municipal area. The existing organogram of the municipality does not consider skilled manpower for environmental management practices in municipal area.

7.2.5 Findings from SWOT Analysis

Sreepur municipality is the largest municipality regarding area which will make sense of huge opportunity to further industrial development. Sreepur municipality has financial solvency that encourage to the newly elected poura-parishade to take decision and implementation that. On the other hand, Sreepur municipality has no strategic plan to control the upcoming unplanned and rapid industrial development and skilled manpower as well as logistics support for environmental management practices.

7.3 RECOMMENDATIONS

Realize the depth of summary findings, the author has stated some recommendations in the following paragraphs for better environmental management practices in Sreepur municipality;

7.3.1 Recommendation on Typology and Spatial Distribution

There is a part namely Schedule-1 according to the Rule 7(2) in 'Environmental Conservation Rule' 1997' published by the 'Department of Environment' under the 'Ministry of Environment and Forest' to classify the industrial units or projects based on its location and impact on surrounding environment. Sreepur municipality should follow that Schedule-1 while providing 'NOC' for industry set up in its jurisdiction area. For better understanding about industry type and impact, Sreepur municipality also can claim IEE report in the requirement list along with application form for getting 'NOC'. Regarding 'Trade License', Sreepur municipality should follow the 'Industrial Policy Bangladesh-2010' to classify the industry unit based on investment.

Sreepur municipality must ensure safe and secured environment for its citizens during further industrial development through rationale spatial distribution. Sreepur municipality should identify some zones for further industrial development in upcoming LUP as per industry type and accommodate the industry accordingly through 'NOC' process. Sreepur municipality should also specify the number of industries for identified zones and ensure establishment of environmental friendly industry in its jurisdiction area.

7.3.2 Recommendation on Environmental Management Practices

Based on the investigation findings, the author has made recommendation on two requirements in the existing 'NOC' process of Sreepur municipality; one is documents requirement along with application, another is method to charge fee for NOC. These two issues are very important concern to handle the industry entrepreneur regarding urban risk reduction due to environmental degradation and motivate to take NOC from the urban authority.

Sreepur municipality should insist some basic documents along with other necessary documents. The basic documents will be considered as per industry type regarding environmental management aspects while providing 'No Objection Certificate' for

industry set up in its jurisdiction area. A sample list of basic documents as per industry type is shown in table 7.1:

Table-7.1: List of basic documents as per industry type for NOC

Green	Orange A
<ul style="list-style-type: none"> • Location map • Site Plan of proposed plot • IEE report from DOE • Clearance from surrounding land owners • Undertaking regarding environmental concern 	<ul style="list-style-type: none"> • Location map • Site Plan of proposed plot • IEE report from DOE • Clearance from surrounding land owners • Undertaking regarding environmental concern • Papers on input material and output materials
Orange B	Red
<ul style="list-style-type: none"> • Location map • Site Plan of proposed plot • IEE report from DOE • Papers on input material and output materials • Clearance from surrounding land owners • Undertaking regarding environmental concern • Recommendation of Ward Committee • Layout Plan of Proposed Plot • Layout Plan of ETP 	<ul style="list-style-type: none"> • Location map • Site Plan of proposed plot • IEE report from DOE • Papers on input material and output materials • Clearance from surrounding land owners • Undertaking regarding environmental concern • Recommendation of Ward Committee and Town Level Coordination Committee • Layout Plan of Proposed Plot • Layout Plan of ETP

Sreepur municipality should have specific by-laws to charge the fee for NOC considering on industry's types and environmental impact.

After receiving the “Drainage and Environmental Management Plan along with Master plan’, Sreepur municipality should follow the strategies of Environmental Management Plan in the process of ‘NOC’ providing for industrial development in municipal area. Some prescribed format for undertaking regarding environment, clearance from surrounding land owners and site observation report should incorporate in the “Drainage and Environmental Management Plan’ accordingly for environmental management practices in Sreepur municipality.

7.3.3 Recommendation for Strengthening Municipalities

Local government ministry should update the existing municipal manual including specific clause for industrial development in urban area as per Local Government (Municipality) Act’ October, 2009. Local government ministry should circulate new organogram including new separate department namely ‘Urban Planning and Development’ under Local Government (Municipality) Act’ October, 2009. Some important position (i.e. Urban Planner, Environmentalist) should be incorporated in upcoming organogram. Local government division should provide the skilled manpower such as Urban Planner or Environmental Expert as early as possible to implement the “Drainage and Environmental Management Plan” properly at industrial dominating municipalities like Sreepur municipality.

Local government division under ministry of local government rural development and cooperatives should be incorporated as a member in the monitoring and implementation committee of industrial policy. As, the ‘DoE’ has no regional or local office in municipality level to monitor the environmental impact of industrial development to the surrounding built environment, the ‘DoE’ can build capacity at municipality through training or orientation. There should have integrated coordination system between the ‘DoE’ and municipality regarding environmental management practices.

The government can establish a sub-unit of industrial police in industrial pre-dominating municipality to cooperate with municipality for securing the law and order situation of industrial sector to ensure healthy and sound environment for urban citizens.

7.3.4 Recommendation on Public Participation

Sreepur municipality can get support from the institutional channels of public participation for environmental management practice. Ward level coordination committee (WLCC) will be responsible to become witness in undertaking regarding environment for proposed industry unit and will also be responsible to verify the clearance from surrounding land owners and recommend to the municipality providing 'NOC' for industry set up. Town Level Coordination Committee (TLCC) will be responsible to monitoring locally the mandatory objects mentioned in undertaking and can make the arguments in TLCC meeting to take necessary action if the industry violate over the undertaking. Sreepur municipality can also involve Community Based Organization (CBO) from grass root level for environmental management aspects.

7.3.5 Recommendation for Capacity Development

Sreepur municipality should incorporate some strategic approach in annual development activities such as budget allocation for capacity development of municipal staff as well as for organizational strengthening. For example, the municipality can send the relevant staff to participate in seminars, conferences, workshops and training or short course on environmental management practices in home and abroad for capacity development. The municipality should provide sufficient logistic supports for field visit and other official purposes.

7.3.6 Recommendation for Infrastructure Improvement

Sreepur municipality should ensure the better drainage system in municipal area constructing new drain or cleaning existing drain following the upcoming "Drainage and Environmental Management Plan" to increase the discharge capacity for industrial waste water. Sreepur municipality can also increase the capacity of water consumption in the existing canal through regular excavation and as well as evacuation of illegal occupiers on the bank of canal.

7.3.7 Recommendation for Further Study

The author has observed during research period, there is ample scope to do more academic research on industrial waste management in municipal area. So, the author has special

recommendation for further more study on different aspect of industrial waste management in municipal area and the role of relevant agencies regarding environmental management practices.

7.4 CONCLUSION

For increasing national GDP growth and achieving the long term national strategic goal 'vision 2021' for transforming the country into middle income level, industrial development is the important issue in Bangladesh. The environment friendly industrial development in local area will make sure comprehensive and sustainable economic development across the country. Hence, environmental management practices in municipality level are very much important issues to conserve the built environment for comfortable and sound living of the urban citizens. The author has stated some concrete facts and figures of research as concluding remarks following the outcomes from this study.

According to the findings from the first objective, it is demonstrated that still Sreepur municipality has no mechanism to classify the industries and accommodate the industries in suitable location while provide 'NOC' to protect the built environment in its jurisdiction area. According to the findings from the second objective, it is also evident that most of the industry entrepreneur during 2004 to 2009 did not submit the necessary documents with application form or proper documents for getting 'NOC' but they received the 'NOC' to set up industries in Sreepur municipal area. This proved that the process of 'NOC' providing in Sreepur municipality is very weak. According to the findings from the third objective, it is illustrated that Sreepur municipality has lots of limitation in 'NOC' process, personnel capacity as well as institutional and organizational management system. Consequently, strengthening the municipalities regarding environmental management practices are must essential. So, the author has given some recommendations as per requirement of findings in this study.

Therefore, Sreepur municipality obviously needs to realize the present and upcoming sufferings of the citizens due to unplanned and uncontrolled industrial development. Sreepur municipality should considers the recommendations as high preference in decision

making process and improving the management practices following upcoming 'Environmental Management Plan' in the process of 'NOC' providing as 'environmental clearance' for environment friendly industry set up in municipal area. All of us believe that better environment is the prominent feature of better city and thus "Better city, better life" was the slogan of World Habitat Day-2010.

Annex-A

A list of industries established in Sreepur municipal area during 2004-09

Sl. No.	Type of industries					Spatial distribution	
	Name	Establishment	Ownership	Investment Type	DoE Type	Mohalla Name	Ward No
1.	Kamel Sweater	28-03-2004	Ltd	Large	Orange-B	Madokhala	05
2.	Giasuddin Poultry farm	06-07-2004	Proprietor	Medium	Orange-B	Sreepur	01
3.	Medicine Industry Private Ltd	06-07-04	Ltd	Large	Orange-B	Gilarchala	05
4.	Bexin Bahamukhy farm	06-07-2004	Proprietor	Medium	Orange-B	Uzilaba	06
5.	M.M Spinning Mills Ltd	02-12-04	Ltd	Large	Orange-B	Keowa	06
6.	Esrake Spinning Mills Ltd	29-12-04	Ltd	Large	Orange-B	Madokhala	04
7.	Sky Tex Private Ltd	29-12-04	Ltd	Large	Orange-B	Keowa	06
8.	Pendora Sweaters Ltd	08-03-05	Ltd	Large	Orange-B	Gilarchala	05
9.	Pilaset Teretech Ltd	31-05-05	Ltd	Large	Orange-B	Gilarchala	05
10.	S.K.B Stainles Street Ltd	13-08-05	Ltd	Large	Red	Bairagirchala	04
11.	Sarteena Industry Ltd	21-06-05	Ltd	Large	Orange-B	Keowa	06
12.	Crown Ul Wear Ltd	26-06-05	Ltd	Large	Red	Keowa W : Part	08
13.	S.L Cotton Mills Ltd	05-07-05	Ltd	Large	Red	Keowa	06
14.	M/S. Z N F Ltd	05-10-05	Ltd	Medium	Orange-A	Keowa S: Part	05
15.	Your Fashion Sweater Ltd	28-12-05	Ltd	Large	Orange-B	Gilarchala	05
16.	Chittgong Denim Mill Ltd	16-02-06	Ltd	Large	Red	Keowa S: Part	05
17.	Meghna Nit Composite Mill Ltd	06-03-06	Ltd	Large	Red	Gilarchala	05
18.	Rahim Nit Apparel s Ltd	21-06-06	Ltd	Large	Red	Beryderchala	07
19.	Fakhruddin Textile Ltd	18-07-06	Ltd	Large	Red	Keowa S: Part	05

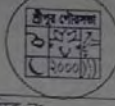
Sl. No.	Type of industries					Spatial distribution	
	Name	Establishment	Ownership	Investment Type	DoE Type	Mohalla Name	Ward No
20.	Eustoria Textile Mill Ltd	05-09-06	Ltd	Large	Red	Dokhala	07
21.	Cinagi Textile Ltd	05-09-06	Ltd	Large	Orange-B	Dokhala	07
22.	Bany Tube Ltd	21-09-2006	Ltd	Medium	Red	Vangnahati	04
23.	Nikki Thai Aluminum Ind: Ltd	05-10-06	Ltd	Large	Orange-B	Keowa	06
24.	New Hope Feed Mill BD Ltd	12-10-06	Ltd	Large	Orange-B	Vangnahati	04
25.	Green Find Composite Ltd	17-10-06	Ltd	Large	Orange-B	Beryderchala	07
26.	Marcap Cotton Mill Ltd	18-10-06	Ltd	Large	Red	Vangnahati	04
27.	Eunilans Textile Ltd	27-11-06	Ltd	Large	Orange-B	S: Vangnahati	02
28.	Erina Agro Processing Ltd	11-12-06	Ltd	Large	Orange-B	Beryderchala	07
29.	K. M Packaging Ltd	13-12-06	Ltd	Medium	Orange-A	Beryderchala	07
30.	The Sweater Co. Ltd	22-01-07	Ltd	Large	Orange-A	Beryderchala	07
31.	Shajahan Spinning Mill Ltd	26-02-07	Ltd	Large	Orange-B	Channapara	07
32.	Amjad Spinning Mill Ltd	05-04-07	Ltd	Large	Orange-B	Vangnahati	04
33.	K .T Fashion Ltd	27-03-07	Ltd	Large	Orange-B	Beryderchala	07
34.	Sreepur Poultry Hatchery	18-03-2007	Proprietor	Medium	Orange-B	Uzilaba	06
35.	Noman Weaving Mill Ltd	27-03-07	Ltd	Large	Red	Keowa W:Part	08
36.	M. H. C Apparel s Pri: Ltd	03-04-07	Ltd	Large	Orange-B	Vangnahati	04
37.	Argon Denims Ltd	11-04-07	Ltd	Large	Red	Beryderchala	07
38.	M/S. Saolin Enterprise	15-04-07	Proprietor	Medium	Orange-A	Sreepur	01
39.	New Alauddin Bakery	17-04-2007	Proprietor	Medium	Orange-A	Beryderchala	07
40.	Magnet Packers Ltd	23-04-07	Ltd	Medium	Orange-A	Keowa S: Part	05
41.	Paramount Tex: Ltd	22-04-07	Ltd	Large	Red	Gilarchala	05
42.	Semi-con Nitex Ltd	30-04-07	Ltd	Large	Orange-B	Vangnahati	04
43.	Nakib Spinning Mill Ltd	13-05-07	Ltd	Large	Orange-B	Keowa	06
44.	B. G. Bed Weaving Ltd	14-05-07	Ltd	Large	Orange-A	Vangnahati	04
45.	C.P Bangladesh Co. Ltd	09-07-07	Ltd	Medium	Orange-A	Keowa S: Part	05
46.	Taquea Fabric Ltd	23-07-07	Ltd	Large	Red	Bohararchala	09

Sl. No.	Type of industries					Spatial distribution	
	Name	Establishment	Ownership	Investment Type	DoE Type	Mohalla Name	Ward No
47.	Amajan Socks Ltd	05-08-07	Ltd	Large	Orange-B	Channapara	07
48.	Aman Cotton Fibrace & Textile Ltd	16-08-07	Ltd	Large	Red	Bayraghirchala	04
49.	Easmin Spinning Mill Ltd	05-09-07	Ltd	Large	Red	Beryderchala	07
50.	Jobayer Spinning Mill Ltd	05-09-07	Ltd	Large	Red	Gilarchala	05
51.	How Are You Tex: Indr: Ltd	13-09-07	Ltd	Large	Red	Gilarchala	05
52.	C. R. C Tex: Mill Ltd	07-10-07	Ltd	Large	Orange-B	Vangnahati	04
53.	Euro Asia Sweater Private Ltd	23-10-07	Ltd	Large	Orange-B	Gilarchala	05
54.	Arnab Fertilizer	06-11-07	Ltd	Large	Red	Gilarchala	05
55.	Sarah Composite Mill Ltd	16-01-08	Ltd	Large	Orange-B	Keowa	06
56.	Homes Garments Mill Ltd	10-02-08	Ltd	Large	Orange-B	Chapilapara	04
57.	Noman Home Tex: Mill Ltd	28-02-08	Ltd	Large	Red	Keowa S: Part	05
58.	Axe Ceramic Ltd	25-03-08	Ltd	Large	Red	Gilarchala	05
59.	M/S. Outspace Spinning Ltd	27-04-08	Ltd	Large	Orange-B	Bohararchala	09
60.	Fashion Makers Ltd	28-04-08	Ltd	Large	Orange-B	Keowa S: Part	05
61.	Spring Nit Wear Ltd	14-05-08	Ltd	Large	Orange-B		06
62.	Premia Flaxo Plastic Ltd	18-05-08	Ltd	Large	Orange-B	Keowa W: Part	08
63.	Marcus Food Products Ltd	24-06-08	Ltd	Large	Orange-B	Vangnahati	04
64.	M/S. Solar Ceramic Ltd	28-07-08	Ltd	Large	Red	Keowa	06
65.	Deygi Apparels Ltd	13-08-08	Ltd	Large	Orange-B	Keowa W:Part	08
66.	M/S. Sataj Sweater Ltd	14-08-08	Ltd	Large	Orange-B	Lohagas	03
67.	Perfetti Van Mele BD Ltd	19-08-08	Ltd	Large	Orange-B	Dokhala	07
68.	Tatka Food & Feed Industry Ltd	03-09-08	Ltd	Large	Orange-B	Keowa	06
69.	Abacot Industry Ltd	09-09-08	Ltd	Large	Orange-B	Bohararchala	09
70.	Miracole Design Ltd	22-10-08	Ltd	Large	Red	Dokhala	07
71.	Blue Ocean Tex: Ltd	04-12-08	Ltd	Large	Orange-B	Vatjori	05
72.	Owfika Ean Dying Ltd	22-03-09	Ltd	Large	Red	Beryderchala	07

Sl. No.	Type of industries					Spatial distribution	
	Name	Establishment	Ownership	Investment Type	DoE Type	Mohalla Name	Ward No
73.	Asoad Composite Mills Ltd	22-03-09	Ltd	Large	Red	Beryderchala	07
74.	Omas Packaging Ltd	24-03-09	Ltd	Medium	Orange-A	Vangnahati	04
75.	Great Wall Ceramic Industry Ltd	19-04-09	Ltd	Large	Red	Gilarchala	05
76.	B .S.S I Labrotaries Ltd	28-05-09	Ltd	Large	Orange-B	Gilarchala	05
77.	Golden Bangla Industrial park Ltd	19-04-09	Ltd	Large	Orange-B	Bohararchala	09
78.	Cristal Industrial Bangladesh (Pvt) Ltd	10-05-09	Ltd	Medium	Orange-B	Keowa	06
79.	Sams Fashion Ltd	04-08-09	Ltd	Large	Orange-B	Keowa W:Part	09
80.	Bangladesh Master Pack Ltd	10-08-09	Ltd	Medium	Orange-A	Gilarchala	05
81.	Abdus Samad Packaging	17-08-09	Ltd	Medium	Orange-A	Vangnahati	04
82.	Netrokona Exosamize Ltd	19-08-09	Ltd	Large	Orange-B	Keowa S: Part	05
83.	Sabnam Textile Mills Ltd	18-08-09	Ltd	Large	Orange-B	Gilarchala	05
84.	Hames Garments Ltd	06 -11-09	Ltd	Large	Orange-B	Chapilapara	04
85.	Hames Fashion Ltd	06-11-09	Ltd	Large	Orange-B	Chapilapara	04
86.	M/S. Welldone Apparels Ltd	11-10-09	Ltd	Large	Red	Beryderchala	07
87.	Sowf Textile Ltd	18-10-09	Ltd	Large	Orange-B	Vangnahati	04
88.	Noytic Poltry & Hatcheries Ltd	12-11-09	Ltd	Medium	Orange-B	Uzilabo	06
89.	Milestone Chemicals Ltd	29-12-09	Ltd	Medium	Red	Gilarchala	05
90.	Sreepur Sow mill	08-02-04	Proprietor	Small	Orange-A	Sreepur North	01
91.	Anower Timber & Sow mill	05-07-04	Proprietor	Small	Orange-A	Sreepur North	01
92.	Basir Husking mill	04-08-04	Proprietor	Small	Orange-A	Sreepur North	01
93.	M/s. Kala miah Sow mill	06-10-04	Proprietor	Small	Orange-A	Sreepur West	02
94.	Giban Sow mill	02-11-04	Proprietor	Small	Orange-A	Sreepur West	02
95.	Babalu Timber traders	09-12-04	Proprietor	Small	Orange-A	Gilarchala	05
96.	Molla Timber & Sow mill	29-12-04	Proprietor	Small	Orange-A	Gilarchala	05
97.	Mowna Sow mill	31-05-05	Proprietor	Small	Orange-A	Keowa W:Part	08

Sl. No.	Type of industries					Spatial distribution	
	Name	Establishment	Ownership	Investment Type	DoE Type	Mohalla Name	Ward No
98.	Sanowar Timber & Sow mill	3-08-05	Proprietor	Small	Orange-A	Keowa W:Part	08
99.	Chorasta Sow mill	1-06-05	Proprietor	Small	Orange-A	Keowa W:Part	08
100	M/s.Walid Timber & Sow mill	13-08-05	Proprietor	Small	Orange-A	Dokhala	07
101	Basar Timber traders	21-06-05	Proprietor	Small	Orange-A	Dokhala	07
102	M/s. Khalaq Sow mill	26-06-05	Proprietor	Small	Orange-A	Gilarchala	05
103	Gitu miah Sow mill	05-07-05	Proprietor	Small	Orange-A	Keowa W:Part	08
104	Babu Timber traders	05-10-05	Proprietor	Small	Orange-A	Beryderchala	07
105	Ansar Timber & Sow mill	26-10-05	Proprietor	Small	Orange-A	Beryderchala	07
106	Beryderchala Sow mill	28-12-05	Proprietor	Small	Orange-A	Beryderchala	07
107	Santu Timber & Sow mill	12-10-06	Proprietor	Small	Orange-A	Beryderchala	07
108	Shaikh Timber traders	17-10-06	Proprietor	Small	Orange-A	Beryderchala	07
109	Annanna Sow mill	18-10-06	Proprietor	Small	Orange-A	Keowa	06
110	Bai Bai Timber traders	27-11-06	Proprietor	Small	Orange-A	Keowa W:Part	08
111	M/s. Miah traders	16-08-07	Proprietor	Small	Orange-A	Keowa W:Part	08
112	Ginat Timber traders	05-09-07	Proprietor	Small	Orange-A	Keowa W:Part	08
113	Batan Timber traders	05-09-07	Proprietor	Small	Orange-A	Vatjori	05
114	Sultan Timber & Sow mill	13-09-07	Proprietor	Small	Orange-A	Bohararchala	09
115	Bahar Sow mill	07-10-07	Proprietor	Small	Orange-A	Keowa S: Part	05
116	Handicraft	2004	Proprietor	Small	Green	Keowa W:Part	08
117	Handicraft	2004	Proprietor	Small	Green	Lohagas	03
118	Handicraft	2004	Proprietor	Small	Green	Lohagas	03
119	Handicraft	2005	Proprietor	Small	Green	Baghmara	05
120	Handicraft	2005	Proprietor	Small	Green	Baghmara	05
121	Handicraft	2006	Proprietor	Small	Green	Uzilabo	06
122	Handicraft	2006	Proprietor	Small	Green	Uzilabo	06

**ANNEX-B:
AN APPLICATION FORM FOR TRADE LICENSE IN SREEPUR
MUNICIPALITY**



শ্রীপুর পৌরসভা
১৯৭৭

শ্রীপুর পৌরসভা
শ্রীপুর, গাজীপুর।

আবেদন ফিঃ ১০০/- (একশত) টাকা।
বিশিষ্ট নং-.....
ইস্যুর তারিখঃ

ক্রমিক নং- **177** ফরম "আই"

১৯৭৭ সনের পৌরসভা অধ্যাদেশের ৫৪, ৮২, ৮৩, ৮৫, ৮৯, ৯২ এর ১১২ ধারা মোতাবেক লাইসেন্স এর দরখাস্তঃ

১. মালিকের নাম :
২. পিতা/স্বামীর নাম :
৩. স্থায়ী ঠিকানা :
৪. ব্যবসা প্রতিষ্ঠান/কারখানার নাম :
- (ক) প্রধান অফিসের ঠিকানা :
- (খ) ব্যবসার স্থান :
৫. প্রতিষ্ঠান/কোম্পানীটি লিমিটেড কিনা ? :
- (প্রতিষ্ঠানটি লিমিটেড হইলে
মেমোরেন্ডাম অব আর্টিক্যালস ও
ব্যালেন্স শীট দাখিল করিতে হইবে।)
৬. মূলধনের পরিমাণ :
- (ওধুমাত্র লিঃ এর জন্য প্রযোজ্য)
৭. আয়কর দেওয়া হয় কিনা ? :
৮. কর্মচারীর সংখ্যা :
৯. নগ্নাতে কারখানা এলাকার বর্ণনা :
১০. প্রতিষ্ঠানে ব্যবহৃত অথবা ব্যবহার
করিতে উচ্চ মেশিনের বিবরণ :
১১. ব্যবসা আরম্ভ করিবার তারিখ :
১২. লাইসেন্স পূর্বের থাকিলে তাহার নম্বর, ঠা
তারিখ ও শেষ হইবার মেয়াদ :
- (অনুলিপি সংযুক্ত যদি পূর্বের থাকে।)
১৩. ব্যবসার ধরন :
১৪. (ক) প্রতিষ্ঠানটি হোডিং ভুক্ত কিনা ? :
- (খ) হোডিং ভুক্ত হলে ট্যাক্স
পরিশোধিত কিনা ? :
- (গ) পরিশোধ না করার কারণ :

আমি নিম্নস্বাক্ষরকারী এই মর্মে ঘোষণা করিতেছি যে, উপরোক্ত বিবরণী আমার জ্ঞান ও জ্ঞানমতে সত্য। কোন তথ্য
পূর্বদৃষ্টিতে অসত্য প্রমাণিত হইলে ট্রেডলাইসেন্স বাতিলসহ আইনানুগ ব্যবস্থা গ্রহণ করিলে আমার কোন প্রকার আপত্তি থাকিবে
না। আমি পৌরসভার ট্রেডলাইসেন্স সম্পর্কিত লাইসেন্স প্রদত্ত শর্তাবলী মানিয়া চলিতে বাধ্য থাকিব।

তারিখঃ :

পদবীসহ দরখাস্তকারীর স্বাক্ষর

লাইসেন্স পরিদর্শকের মতামতঃ

**ANNEX-C:
DISTRIBUTION OF INDUSTRIES IN SREEPUR MUNICIPALITY**

Ward No	Mohalla Name	Number of industry (%)	Ownership
01	Sreepur north	07 (5.74)	Proprietor
	Baghmara	03 (2.46)	Proprietor
		01 (0.82)	Limited company
02	Sreepur south	04 (3.28)	Proprietor
	S: vangnahati	01 (0.82)	Limited company
03	Lohagas	03 (2.46)	Proprietor
		01 (0.82)	Limited company
	Guchhagram	01 (0.82)	Limited company
04	Vangnahati	12 (9.84)	Limited company
	Chapilapara	03 (2.46)	Limited company
	Bairagirchala	02 (1.64)	Limited company
05	Gilarchala	03 (2.46)	Proprietor
		15 (12.29)	Limited company
	Keowa s: part	01 (0.82)	Proprietor
		06 (4.92)	Limited company
	Vatjori	02 (1.64)	Limited company
	Madokhlal	03 (2.46)	Limited company
06	Uzilaba	01 (0.82)	Proprietor
		03 (2.46)	Limited company
	Keowa	01 (0.82)	Proprietor
		08 (6.56)	Limited company
07	Beryderchala	01 (0.82)	Proprietor
		11 (9.02)	Limited company
	Dokhala	04 (3.28)	Limited company
	Channapara	02 (1.64)	Proprietor
		02 (1.64)	Limited company
08	Keowa w: part	10 (8.2)	Proprietor
		07 (5.74)	Limited company
09	Bahararchala	04 (3.28)	Limited company
Total		122 (100)	

ANNEX-D:
AN APPLICATION FORM FOR 'NO OBJECTION CERTIFICATE'

মূল্য : ১০০ (একশত টাকা মাত্র)

শ্রীপুর পৌরসভা কার্যালয়
শ্রীপুর, গাজীপুর।

শ্রীপুর পৌরসভা
২০০০

অনাপত্তির ছাড়পত্র

আবেদন পত্র নং : 829
রশিদ নং ও ইস্যুর তারিখ :
ইস্যুকারীর স্বাক্ষর ও সিল :

- ✓ সময় মত পৌরকর পরিশোধ করুন।
- ✓ নিয়ম অনুযায়ী ইমারত নির্মাণ করুন।
- ✓ আপনার শহর পরিষ্কার পরিচ্ছন্ন রাখুন।
- ✓ মা ও শিশুকে সময়মত টিকা দিন।
- ✓ আপনার ব্যবসা প্রতিষ্ঠানের ট্রেড লাইসেন্স করুন
এবং সময় মত নবায়ন করুন।

বরাবর,
চেয়ারম্যান
শ্রীপুর পৌরসভা
শ্রীপুর, গাজীপুর।

বিষয় : অনাপত্তি (এন,ও,সি) সনদের জন্য আবেদন।

জনাব,

সম্মান পূর্বক নিবেদন এই যে, আমি.....

পিতা/খামী..... স্থায়ী ঠিকানা গ্রামঃ.....

ওয়ার্ড নং..... পোঃ..... পৌরসভা-শ্রীপুর, জেলা-গাজীপুর। ফোন নং.....

আপনার পৌর এলাকার একজন ব্যবসায়ী। বাড়ী ঘর নির্মাণ/সীমানা প্রাচীর/দোকান পাট/পোশ্টি ফার্ম/ডেইরী ফার্ম/কারখানা স্থাপনের জন্য সনদ পত্র প্রয়োজন। উক্ত সনদপত্র প্রদানের জন্য মহোদয় সমীপে আবেদন করছি।

প্রতিষ্ঠানের নাম :-.....

খতিয়ান			দাগ নং			অবস্থান
সি,এস	এস,এ	আর,এস	সি,এস	এস,এ	আর,এস	মৌজার নাম
						জে,এল,নং
						জমির পরিমাণ
						ওয়ার্ড নং

অতএব, বিনীত নিবেদন আমাকে উক্ত সনদপত্র প্রদান করতে মহোদয়ের মর্জি হয়।

আবেদনকারীর স্বাক্ষর

সংযুক্তি :- ১। ছবি দুই কপি ২। পরিশোধিত ট্যাক্স ও খাজনা রশিদের ফটোকপি ৩। দলিল ৪। সার্ভেয়ার/সার্বে প্রতিষ্ঠান কর্তৃক সীমানা নির্ধারণী প্রত্যয়ন পত্র ৫। পরিবেশ বিষয়ক অধিকার নামা ৬। মৌজা ম্যাপ ৭। ডিসিয়ার ৮। খারিজ পর্চা ৯। জমির চারপাশের মালিক গনের না দাবী ১০। ভাড়ার জাড়া ক্ষেত্রে ভাড়ার ডিড।

১। বর্তমানে উক্ত এলাকায় পৌরসভার কোন পরিকল্পনা আছে কি না :-

২। পরিকল্পনা থাকিলে কি কাজের জন্য নির্ধারিত :-

৩। সরেজমিনে পরিদর্শন ও পরীক্ষার পর পরিদর্শনকারীর মতামত :-

শর্ত সমূহ :-

১। পৌরসভার উন্নয়ন পরিকল্পনা অন্তর্ভুক্ত হলে এই ছাড়পত্র বাতিল বলে গণ্য হবে।

২। পরিবেশ দূষণের সন্ধান দেখা দিলে ছাড়পত্র বাতিল বলে গণ্য হবে।

৩। পৌরসভা যে কোন সময় উক্ত ছাড়পত্র বাতিল করতে পারবে এতে আবেদনকারীর কোন আপত্তি চলবে না।

৪। যদি কোন আর্থিক প্রতিষ্ঠান অর্থ বিনিয়োগ করতে চান, তারা নিজ স্বায়িত্বে করবেন।

৫। শিল্প কারখানা, পোশ্টি, ডেইরী ফার্ম এবং মার্কেট এর ট্রেড লাইসেন্স প্রদানের পূর্বেই প্রায় অনুমোদন করতে হবে।

উপ-সহকারী প্রকৌশলী
শ্রীপুর পৌরসভা

সহকারী প্রকৌশলী
শ্রীপুর পৌরসভা

চেয়ারম্যান
শ্রীপুর পৌরসভা

ANNEX-E: INVESTIGATION FINDINGS

Sl. No.	Name of the Industry	Local/ Home/ Foreign	Category of industry	Deed of land ownership	Input materials and output products	IEE report and ETP	Mouza Map	Site plan	Types of structure	Undertaking regarding environment	Clearance from surrounding land owners.	Report on Site observation
1.	Kamel Sweater	L		√								Stated in file note
2.	Giasuddin Poultry farm	L		√								Stated in file note
3.	Medicine Industry Private Ltd	L		√						√ CP		Stated in file note
4.	Bexin Bahamukhy farm	L		√								Stated in file note
5.	M.M Spinning Mills Ltd	L		√			√			√ CP	√ CP	Stated in file note
6.	Esrake Spinning Mills Ltd	L		√			√					Stated in file note
7.	Sky Tex Private Ltd	L		√			√					Stated in file note
8.	Pendora Sweaters Ltd	L		√						√ CP	√ CP	Stated in file note
9.	Pilaset Teretech Ltd	L		√			√					Stated in file note
10.	S.K.B Stainles Steel Ltd	L		√						√ CP		Stated in file note
11.	Sarteena Industry Ltd	L		√			√			√ CP	√ CP	Stated in file note
12.	Crown Ul Wear Ltd	L		√			√			√ CP	√ CP	Stated in file note
13.	S.L Cotton Mills Ltd	L		√			√			√ CP	√ CP	Stated in file note

Sl. No.	Name of the Industry	Local/ Home/ Foreign	Category of industry	Deed of land ownership	Input materials and output products	IEE report and ETP	Mouza Map	Site plan	Types of structure	Undertaking regarding environment	Clearance from surrounding land owners.	Report on Site observation
14.	M/S. Z N F Ltd	L		√								Stated in file note
15.	Town Texti fashion ind: pvt Ltd	L		√								Stated in file note
16.	Your Fashion Sweater Ltd	H		√			√	√		√ CP	√ CP	Stated in file note
17.	Chittgong Denim Mill Ltd	L		√			√			√ CP		Stated in file note
18.	Meghna Nit Composite Mill Ltd	L		√			√					Stated in file note
19.	Rahim Nit Apparel s Ltd	L		√			√					Stated in file note
20.	Fakhruddin Textile Ltd	H		√			√			√ CP		Stated in file note
21.	Eustoria Textile Mill Ltd	H		√								Stated in file note
22.	Cinagi Textile Ltd	L		√								Stated in file note
23.	Bany Tube Ltd	H		√			√					Stated in file note
24.	Nikki Thai Aluminum Ind: Ltd	H		√								Stated in file note
25.	New Hope Feed Mill BD Ltd	F		√			√			√ CP		Stated in file note
26.	Green Find Composite Ltd	H		√			√			√ CP		Stated in file note
27.	Marcup Cotton spring Ltd	H		√								Stated in file note

Sl. No.	Name of the Industry	Local/ Home/ Foreign	Categor y of industry	Deed of land ownership	Input materials and output products	IEE report and ETP	Mouza Map	Site plan	Types of struct ure	Undertaking regarding environment	Clearance from surrounding land owners.	Report on Site observation
28.	Eunilans Textile Ltd	L		√								Stated in file note
29.	Erina Agro Processing Ltd	L		√								Stated in file note
30.	K. M Packaging Ltd	L		√								Stated in file note
31.	The Sweater Co. Ltd	H		√								Stated in file note
32.	Shajahan Spinning Mill Ltd	L		√								Stated in file note
33.	Amjad Spinning Mill Ltd	L		√								Stated in file note
34.	K .T Fashion Ltd	L		√			√				√	Stated in file note
35.	Sreepur Poultry Hatchery	L		√								Stated in file note
36.	Noman Weaving Mill Ltd	L		√								Stated in file note
37.	M. S. C Apparel s Pri: Ltd	L		√			√					Stated in file note
38.	Argon Denims Ltd	L		√								Stated in file note
39.	M/S. Saolin Enterprise	L		√								Stated in file note
40.	New Alauddin Bakery	L		√								Stated in file note
41.	Magnet Packers Ltd	L		√								Stated in file note

Sl. No.	Name of the Industry	Local/ Home/ Foreign	Category of industry	Deed of land ownership	Input materials and output products	IEE report and ETP	Mouza Map	Site plan	Types of structure	Undertaking regarding environment	Clearance from surrounding land owners.	Report on Site observation
42.	Paramount Tex: Ltd	L		√			√	√		√		Stated in file note
43.	Semi-con Nitex Ltd	L		√								Stated in file note
44.	Nakib Spinning Mill Ltd	H		√								Stated in file note
45.	B. G. Bed Weaving Ltd	L		√								Stated in file note
46.	C.P Bangladesh Co. Ltd	L		√			√					Stated in file note
47.	Taquea Fabric Ltd	L		√			√					Stated in file note
48.	Amajan Socks Ltd	L		√								Stated in file note
49.	Aman Cotton Fibrace Textile Ltd	H		√			√		√			Stated in file note
50.	Easmin Spinning Mill Ltd	L		√								Stated in file note
51.	Jobayer Spinning Mill Ltd	L		√								Stated in file note
52.	How Are You Tex: Indr: Ltd	F		√			√	√	√			Stated in file note
53.	C. R. C Tex: Mill Ltd	L		√								Stated in file note
54.	Euro Asia Sweater Private Ltd	L		√			√			√ CP	√ CP	Stated in file note
55.	Arnab Firilizer	L		√								Stated in file note

Sl. No.	Name of the Industry	Local/ Home/ Foreign	Category of industry	Deed of land ownership	Input materials and output products	IEE report and ETP	Mouza Map	Site plan	Types of structure	Undertaking regarding environment	Clearance from surrounding land owners.	Report on Site observation
56.	Sarah Composite Mill Ltd	H		√								Stated in file note
57.	Homes Garments Mill Ltd	L		√								Stated in file note
58.	Noman Home Tex: Mill Ltd	L		√								Stated in file note
59.	Axe Ceramic Ltd	L		√			√					Stated in file note
60.	M/S. Outspace Spinning Ltd	L		√						√ CP		Stated in file note
61.	Fashion Makers Ltd	L		√								Stated in file note
62.	Spring Nit Wear Ltd	L		√								Stated in file note
63.	Premia Flaxo Plastic Ltd	L		√								Stated in file note
64.	Marcus Food Products Ltd	H		√								Stated in file note
65.	M/S. Solar Ceramic Ltd	H		√								Stated in file note
66.	Deygi Apparels Ltd	H		√								Stated in file note
67.	M/S. Sataj Sweater Ltd	H		√			√					Stated in file note
68.	Perfetti Van Mele BD Ltd	F		√				√	√	√		Stated in file note

Sl. No.	Name of the Industry	Local/ Home/ Foreign	Category of industry	Deed of land ownership	Input materials and output products	IEE report and ETP	Mouza Map	Site plan	Types of struct ure	Undertaking regarding environment	Clearance from surrounding land owners.	Report on Site observation
69.	Tatka Food & Feed Industry Ltd	L		√								Stated in file note
70.	Abacot Industry Ltd	H		√								Stated in file note
71.	Miracole Design Ltd	L		√								Stated in file note
72.	Blue Ocean Tex: Ltd	L		√								Stated in file note
73.	Owfika Ean Dying Ltd	H		√			√				Stated in plane paper no format	Stated in file note
74.	Asoad Composite Mills Ltd	H		√								Stated in file note
75.	Omas Packaging Ltd	L		√								Stated in file note
76.	Great Wall Ceramic Industry Ltd	L		√			√			DoE clearance		Stated in file note
77.	B .S.S I Labrotaries Ltd	L		√								Stated in file note
78.	Golden Bangla Industrial park Ltd	L		√								Stated in file note
79.	Cristal Industrial Bangladesh Private Ltd	H		√								Stated in file note
80.	Sams Fashion Ltd	H		√								Stated in file note
81.	Bangladesh Master Pack Ltd	L		√								Stated in file note

Sl. No.	Name of the Industry	Local/ Home/ Foreign	Category of industry	Deed of land ownership	Input materials and output products	IEE report and ETP	Mouza Map	Site plan	Types of struct ure	Undertaking regarding environment	Clearance from surrounding land owners.	Report on Site observation
82.	Abdus Samad Packaging	L		√			√					Stated in file note
83.	Netrokona Exosamize Ltd	L		√			√					Stated in file note
84.	Sabnam Textile Mills Ltd	L		√								Stated in file note
85.	Hames Garments Ltd	L		√								Stated in file note
86.	Hames Fashion Ltd	L		√								Stated in file note
87.	M/S. Welldone Apparels Ltd	L		√						Stated in company Pad		Stated in file note
88.	Sawf Textile Ltd	L		√								Stated in file note
89.	Noytic Poltry & Hatcheries Ltd	L		√								Stated in file note
90.	Milestone Chemical s Ltd	L		√								Stated in file note

Annex-F: Questionnaire for municipal-staff

(This information will be used for academic research purposes)

Bangladesh University of Engineering and Technology, Dhaka
Department of Urban and Regional Planning
Thesis Title: Industrial Development and Environmental Management Practices
in Sreepur municipality, Gazipur.

Four municipal-staff are involved in the process of 'NOC' providing for environmental management practices in Sreepur municipality. So, questionnaire has four parts based on the role of four staff desks.

Part-I: Desk of Surveyor

(Surveyor is responsible to verify the documents of land ownership in the process of 'NOC' providing)

Q-01: What is the legal base to provide NOC for setting industry?

- i. Local Government (Municipality) Act, 2009
- ii. Municipal Manual
- iii. Municipal Ordinance 1977
- iv. Other (Specify.....)

Q-02: What types of landownership documents are required to submit for 'NOC'?

- i. Deed of Landownership
- ii. Agreement for Rented / Lease Land
- iii. Duplicate Carbon Record
- iv. Kharij Parcha
- v. Mouza Map
- vi. Boundary Demarcation Certificate
- vii. Others (Please specify.....)

Q-03: How do you verify the documents on land ownership?

- i. Based on submitted documents and through field visit
- ii. Only based on submitted documents.

Q-04: What are the basic parameters to verify through field visit?

- i. Area of the plot
- ii. Demarcation of the plot boundary
- iii. Others (Please specify.....)

Q-05: Are you only Surveyor in this municipality?

- i. Yes.
- ii. No.

Q-06: If no, how many number of surveyor in this municipality?

- i. One.
- ii. Two.
- iii. Three

Q-07: If yes, how many numbers of applications for 'NOC' you receive in monthly?

- i. Two.
- ii. Three
- iii. Four
- iv. Five

Q-08: How much time you need for one application?

- i. One Week.
- ii. Two Week
- iii. Three Week

Q-09: Do you face any problem during precede your role?

- i. Instruments for area measurement
- ii. Lack of vehicles for field visit
- iii. Time limitation
- iv. Others (Please specify.....)

Q-10: Please put your suggestion to overcome existing problems.

- i. Recruitment of manpower
- ii. Logistics support
- iii. Legal base
- iv. Others (Please specify.....)

Thank you

Part-II: Desk of Sub-Assistant Engineer (Civil)

(Sub-Assistant Engineer is responsible to confirm the specific documents regarding environmental management aspect in the process of 'NOC' providing)

Q-11: What types of the specific documents are required to submit getting 'NOC' for industry set up?

- i. IEE/EIA report
- ii. ETP document
- iii. Undertaking regarding environment
- iv. Clearance from Surrounding Land Owners
- v. Others (Please specify.....)

Q-12: If the specific documents are not available with the application, what is the next step in the process?

- i. Pending the application
- ii. Letter to the applicant
- iii. Others (Specify.....)

Q-13: Is there any time limit to provide 'NOC' after submission of the application form?

- iv. Yes.
- v. No.

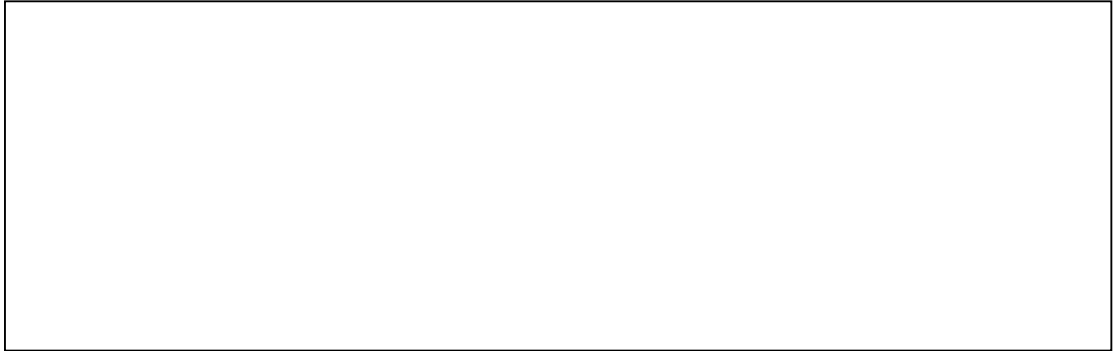
Q-14: If yes, what is the time limit to provide 'NOC' after submission of the application form?

- i. One month
- ii. Two months
- iii. Three months
- iv. Four months

Q-15: Is there any other responsibility of you in the process of 'NOC' providing?

- i. Verify Location Map
- ii. Verify Site Plan
- iii. Others (Specify.....)

Q-16: How does the entire process of providing 'NOC' step forward after the submission of the application form?



Q-17: Do you have any proposal for improving the process of 'NOC' providing?

- i. Different application form based on environmental impact
- ii. Prescribed format for the specific documents
- iii. Recruitment of manpower
- iv. Logistics support
- v. Others (Please specify.....)

Thank you

Part-III: Desk of Assistant Engineer (Head of the Department)

(Assistant Engineer is responsible to justify the specific documents regarding environmental management practices in the process of 'NOC' providing for industry set up in municipal area)

Q-18: Please state the mandatory issues in the specific documents controlling the environmental degradation.

Q-19: Do you have any strategic base for the process of 'NOC' providing?

- i. Yes.
- ii. No.
- iii. Others (Specify.....)

Q-20: If no, how can justify the specific documents?

Q-21: If yes, what type of it is?

- i. Environmental Management Plan
- ii. Others (Specify.....)

Q-22: When it was prepared for the municipality?

- i. Recently.
- ii. 2 years ago.
- iii. 5 years ago.
- iv. Others (Specify.....)

Q-23: How does Sreepur municipality work with “the Department of Environment” regarding Environmental Clearance?

- iii. Provide 'NOC'
- iv. Provide 'Trade license'
- v. Provide 'Lay out plan' approval
- vi. Others (Specify.....)

Q-24: Please identify the limitations in the process of 'NOC' providing for environmental management practices.

- i. Institutional weakness
- ii. Lack of skilled manpower
- iii. Need legal base
- iv. Lack of monitoring
- v. Lack of coordination with national relevant agency
- vi. Others (Specify.....)

Q-25: Please give your proposal to overcome the limitation in the process of 'NOC' providing?

- i. Prescribed format for the specific documents
- ii. Legal base (Environmental Management Plan)
- iii. Separate section for environmental management practices
- iv. Recruitment of skilled manpower
- v. Logistics support
- vi. Coordination with national agencies
- vii. Others (Please specify.....)

Q-26: What the reference of the law stated in 'NOC 'certificate?

- i. Department of Environment
- ii. Department of fishery
- iii. Ministry of Labour
- iv. Others (Specify.....)

Thank you

Part-IV: Desk of Mayor (Head of the Municipality)

(Mayor approved the application form for providing 'NOC')

Q-27: Please state your considerations to approve the application for NOC providing.

- i. Recommendation by Assistant Engineer
- ii. Recommendation by local councilor
- iii. Updated holding Tax receipt
- iv. Others (Specify.....)

Q-28: How many year you passed as a mayor of this municipality?

- i. Recently.
- ii. 2 years ago.
- iii. 5 years ago.
- iv. Others (Specify.....)

Q-29: Do you think Sreepur municipality has enough strength to control the environmental degradation in municipal area?

- i. Yes.
- ii. No.

Q-30: If no, please identify the limitations in the process of 'NOC' providing for environmental management practices.

- i. Institutional weakness
- ii. Lack of skilled manpower
- iii. Need legal base
- iv. Lack of monitoring
- v. Lack of coordination with national relevant agency
- vi. Others (Specify.....)

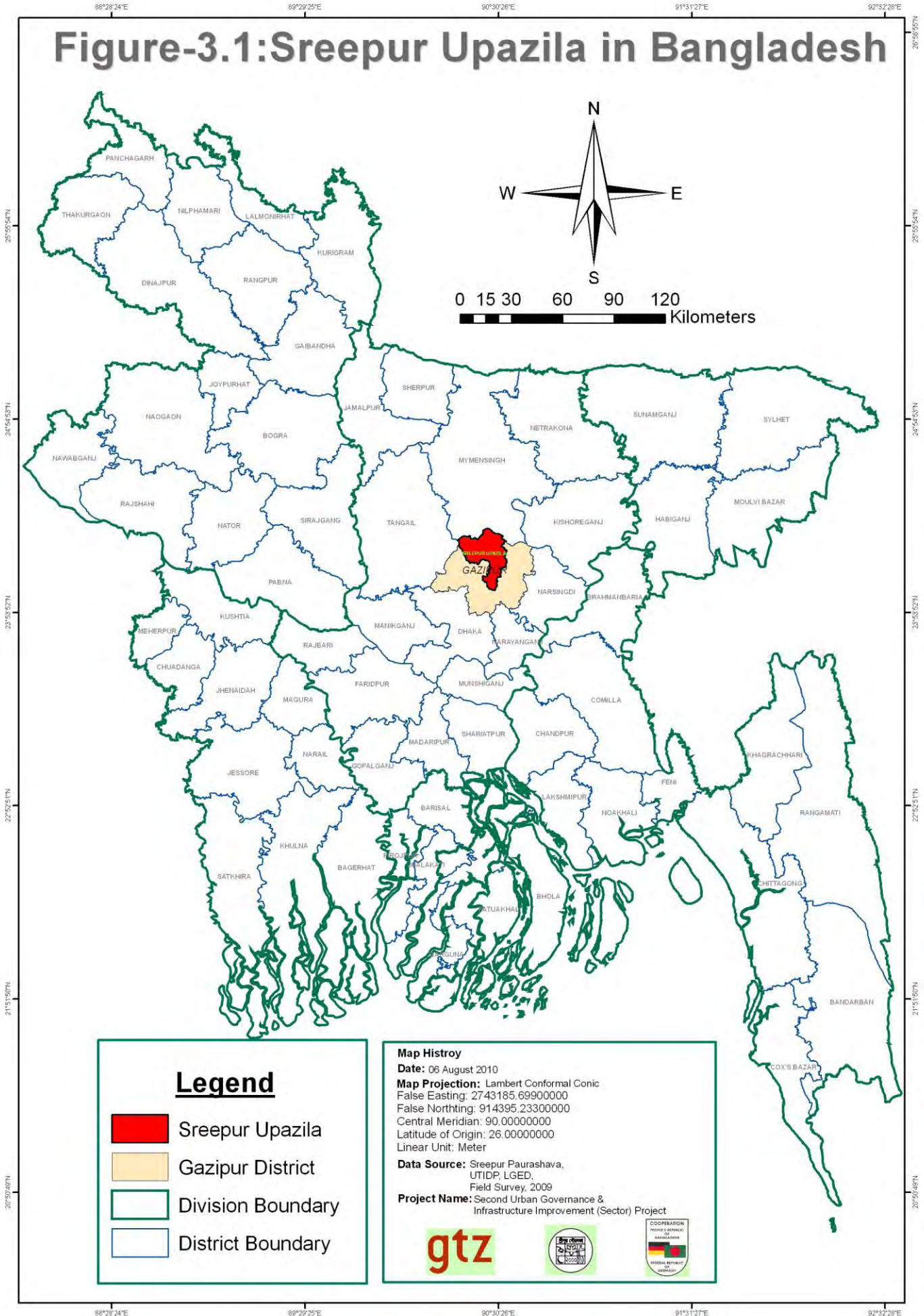
Q-31: Please give your suggestion to improve the environmental management practices in Sreepur municipality.

- i. Legal base (Environmental Management Plan)
- ii. Separate Department for planning and development including environmental management
- iii. Recruitment of skilled manpower
- iv. Coordination with national agencies
- v. Others (Please specify.....)

Thank you

.....
Signature of the interviewer
Date:

Figure-3.1: Sreepur Upazila in Bangladesh



Legend

- Sreepur Upazila
- Gazipur District
- Division Boundary
- District Boundary

Map History

Date: 06 August 2010
Map Projection: Lambert Conformal Conic
 False Easting: 2743185.69900000
 False Northing: 914395.23300000
 Central Meridian: 90.00000000
 Latitude of Origin: 26.00000000
 Linear Unit: Meter

Data Source: Sreepur Paurashava,
 UTIDP, LGED,
 Field Survey, 2009

Project Name: Second Urban Governance &
 Infrastructure Improvement (Sector) Project



Figure-3.2: Sreepur Municipal Area

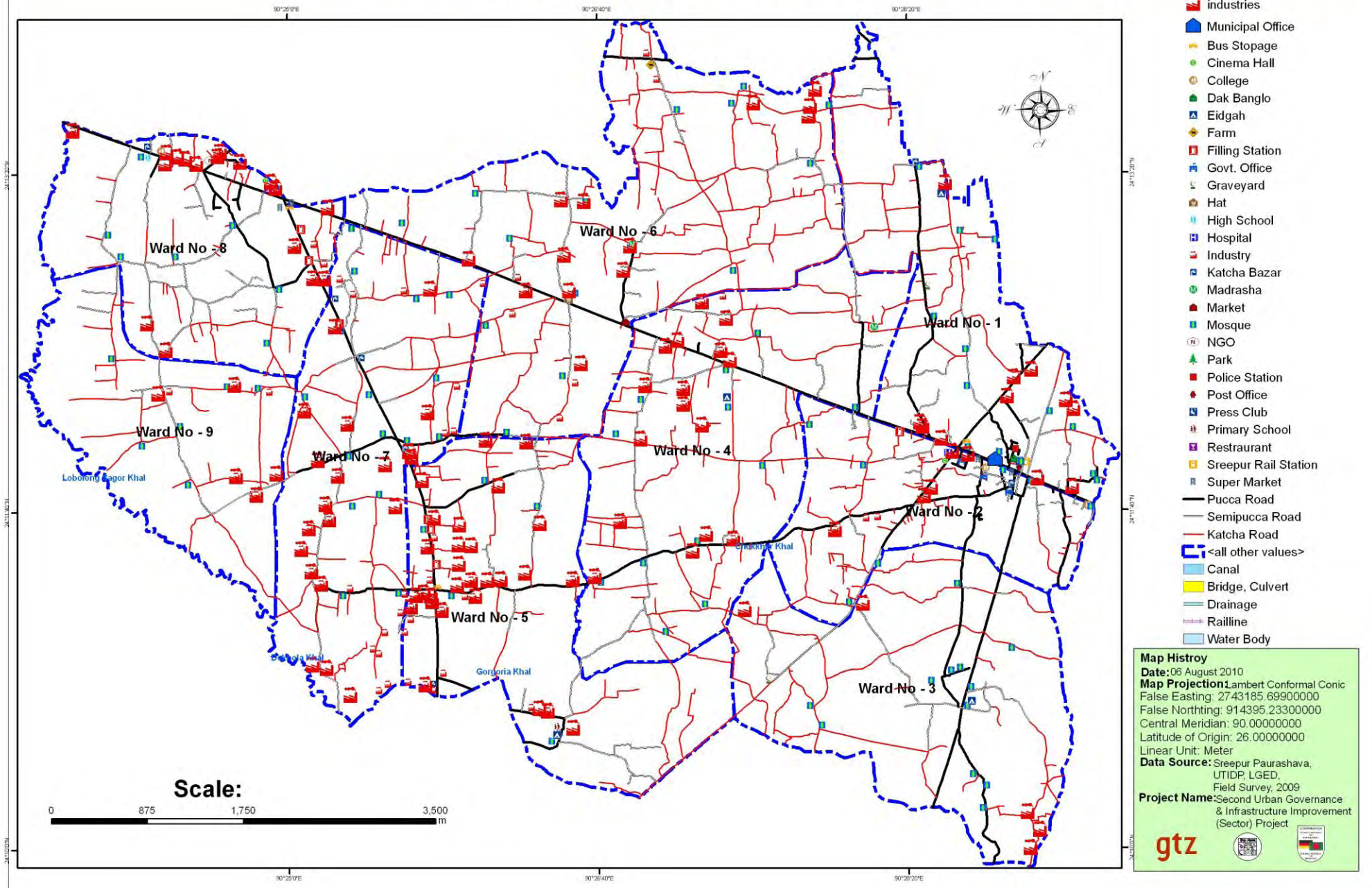


FIGURE-4.1: DISTRIBUTION OF INDUSTRIES IN SREEPUR MUNICIPALITY BASED ON OWNERSHIP AND INVESTMENT TYPE

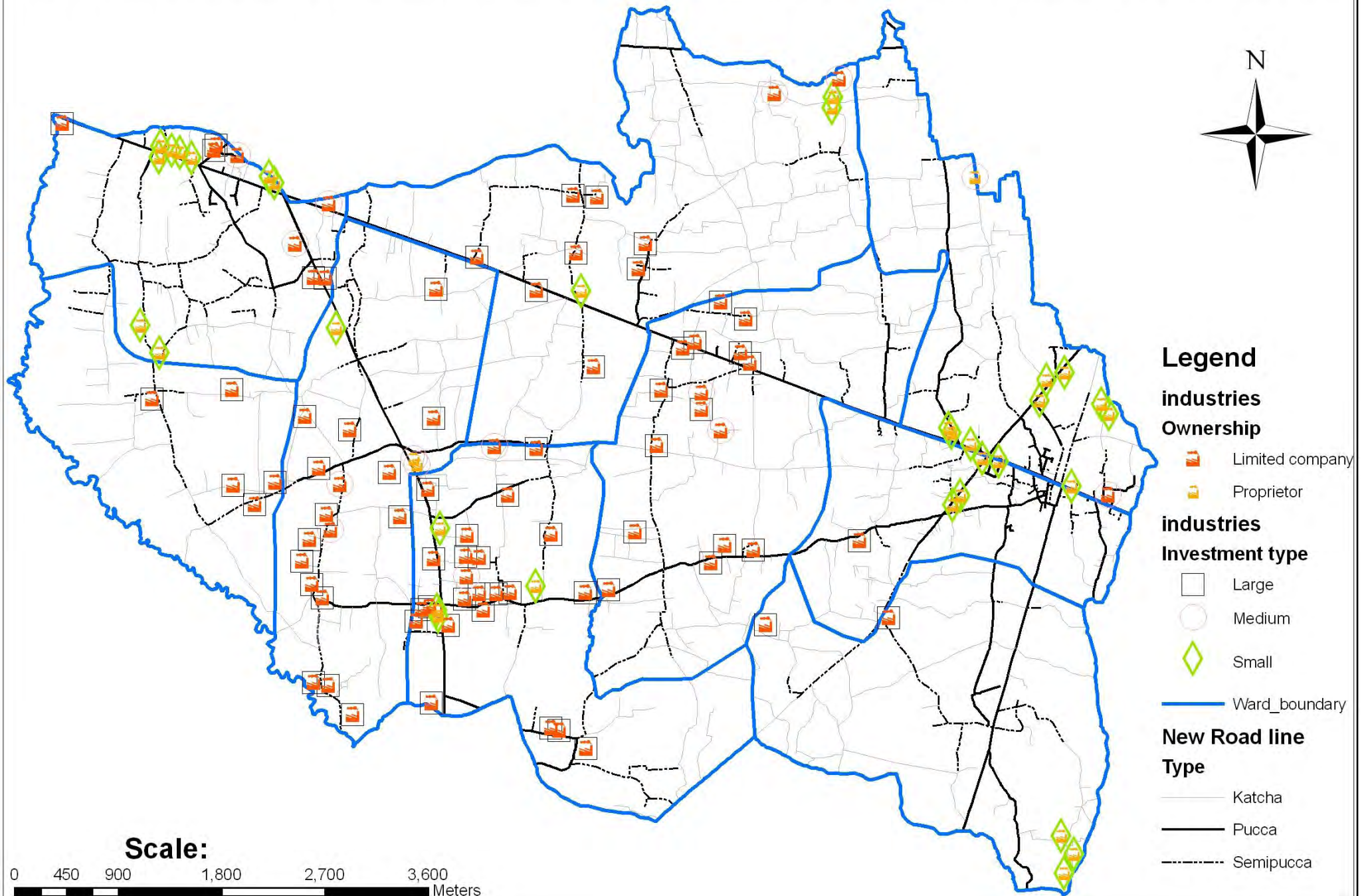
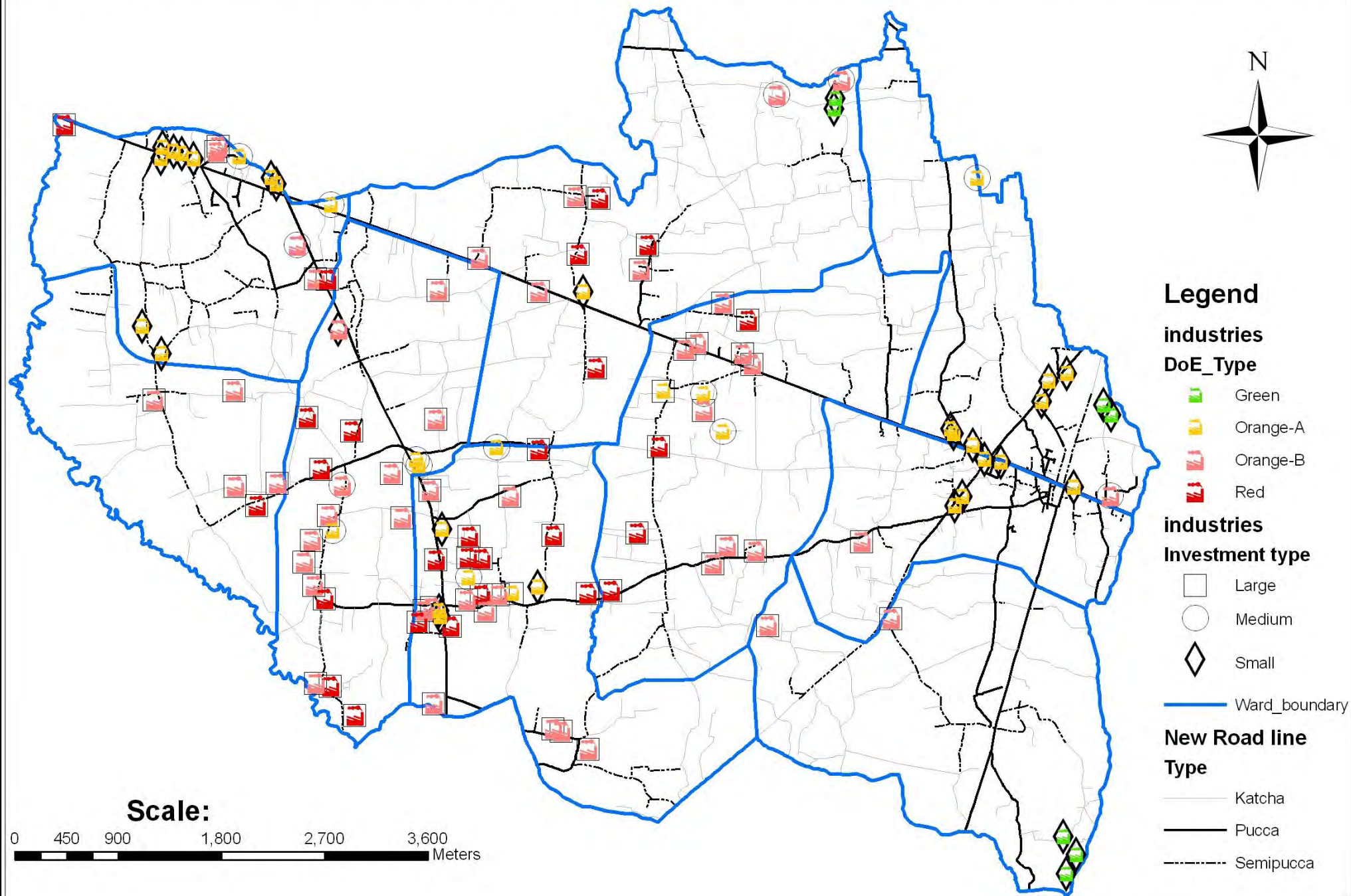


FIGURE-4.2: DISTRIBUTION OF INDUSTRIES IN SREEPUR MUNICIPALITY BASED ON DOE CATEGORY AND INVESTMENT TYPE



REFERENCES

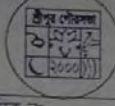
- Asian Development Bank, “Country Synthesis Report on Urban Air Quality Management: Bangladesh”, Philippines, December 2006.
- Centre for Policy Dialogue, “The Role of Industrialization for Economic Development in Bangladesh”, Government of Bangladesh, Dhaka, May 2005.
- Domenech, Teresa, and Davies, Michael, “The Role of Industrial Symbiosis in Sustainable Development: A Critical Discourse Approach”, *The International Journal of Environmental, Cultural, Economic and Social Sustainability*, vol.28 no.2, pp.173-188., University College of London, London, UK, 2009.
- Department of Environment, “National 3R Strategy for Waste Management” Ministry of Environment and Forest, Dhaka, Bangladesh, December 2010.
- Department of Police, “Report on 2 Years Activities under Present Government” Ministry of Home, Dhaka, Bangladesh, March 2011.
- European Commission, “Environment fact sheet: industrial development” Brussels, Belgium, March 2006.
- Finance Division, “The report of Economic Survey-2009”, Ministry of Finance, Dhaka, June 2010.
- Glason, Jhon, “An introduction to Regional Planning”, London, UK, 1968.
- Haq, I .A., “The review of the Industrial Policies in Bangladesh”, Term Paper, Course P501: Managing Operation, Institute of Business Administration, Dhaka University, Dhaka, May 2008.
- Hopke, Philip K. "Contemporary Threats and Air Pollution." *Atmospheric Environment* 43 (2009): 87-93. Web. 25 Feb. 2011.
- Jean Fourastié, “The Great Hope of the 20th Century" *Die große Hoffnung des 20. Jahrhunderts*. Köln-Deutz 1954.

- Jones, Eric “The European Miracle: Environments, Economics and Geopolitics in the History of Europe and Asia”, 3. ed. Cambridge 2003.
- Khan, A. M., “Poverty Reduction and Social Development in Bangladesh; A Study from Special Perspective”, MURP Thesis, Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka, April 2009.
- Local Government Engineering Department (LGED), “Municipal Manual 2003”, Ministry of Local Government, Dhaka, Bangladesh, 2003.
- Lewis F. Abbott, “*Theories of Industrial Modernization & Enterprise Development: A Review*”, ISM/Google Books, revised 2nd edition, 2003.
- Local Government Engineering Department (LGED), “Prokalpa Porichitee of Second Urban Governance and Infrastructure Improvement (sector) Project (UGIIP-2)”, Ministry of Local Government, Dhaka, Bangladesh, January 2009.
- Local Government Engineering Department (LGED), “Baseline Survey- 2009”, Second Urban Governance and Infrastructure Improvement (sector) Project (UGIIP-2), Ministry of Local Government, Dhaka, Bangladesh, April 2009.
- Local Government Division, “The Local Government (Municipality) Act 09”, Ministry of Local Government, Government of Bangladesh, Dhaka, October 2009.
- Ministry of Industry, “Bangladesh Industrial Policy-2005”, Government of Bangladesh, Dhaka, Bangladesh, May 2005.
- Ministry of Industry, “Bangladesh Industrial Policy-2005”, Government of Bangladesh, Dhaka, Bangladesh, September 2010.
- Planning Commission, “OUTLINE PERSPECTIVE PLAN OF BANGLADESH (2010-2021): MAKING VISION 2021 A REALITY”, Ministry of Planning, Government of Bangladesh, Dhaka, June 2010.
- Pollard, “Sidney: Peaceful Conquest, the Industrialization of Europe 1760–1970”, Oxford 1981.
- Sullivan, Steven M. Sheffrin., “Economics” Principles in action”, pp 472, Upper Saddle River, New Jersey 07458: Pearson Prentice Hall, 2003.

- Sreepur municipality, “The application form for NOC”, By-laws, Gazipur, Bangladesh, March 2003.
- Sreepur municipality, “The Annual Budget: 2009-10”, Gazipur, Bangladesh, June 2009.
- Sreepur municipality, “Paurashava Development Plan (PDP)”, Second Urban Governance and Infrastructure Improvement (sector) Project (UGIIP-2), Gazipur, Bangladesh, July 2010.
- Se Hark Park, Walter C. Labys, “Industrial development and Environmental Degradation”, Edward Elgar Publishing Ltd, Northampton, MA 01060-3815 USA, 2011.
- United Nations Economic and Social Commission for Asia and the Pacific, “Country Report on Local Government System: Bangladesh” New York, May 2001.
- Zheng, Jane, “The “Entrepreneurial State” in “Creative Industry Cluster” development in Shanghai”, *Journal of Urban Affairs*, Vol-32, Issue No. 2, pp 143-170, May 2010.

ANNEX

**ANNEX-B:
AN APPLICATION FORM FOR TRADE LICENSE IN SREEPUR
MUNICIPALITY**



শ্রীপুর পৌরসভা
১৯৭৭

শ্রীপুর পৌরসভা
শ্রীপুর, গাজীপুর।

আবেদন ফিঃ ১০০/- (একশত) টাকা।
বর্ষিক নং-.....
ইস্যুর তারিখঃ

ক্রমিক নং- **177** ফরম "আই"

১৯৭৭ সনের পৌরসভা অধ্যাদেশের ৫৪, ৮২, ৮৩, ৮৫, ৮৯, ৯২ এর ১১২ ধারা মোতাবেক লাইসেন্স এর দরখাস্তঃ

১. মালিকের নাম :
২. পিতা/স্বামীর নাম :
৩. স্থায়ী ঠিকানা :
৪. ব্যবসা প্রতিষ্ঠান/কারখানার নাম :
- (ক) প্রধান অফিসের ঠিকানা :
- (খ) ব্যবসার স্থান :
৫. প্রতিষ্ঠান/কোম্পানীটি লিমিটেড কিনা ? :
- (প্রতিষ্ঠানটি লিমিটেড হইলে
মেমোরেন্ডার অব আর্টিক্যালস ও
ব্যালেন্স শীট দাখিল করিতে হইবে।)
৬. মূলধনের পরিমাণ :
- (ওধুমাত্র লিঃ এর জন্য প্রযোজ্য)
৭. আয়কর দেওয়া হয় কিনা ? :
৮. কর্মচারীর সংখ্যা :
৯. নগ্নাতে কারখানা এলাকার বর্ণনা :
১০. প্রতিষ্ঠানে ব্যবহৃত অথবা ব্যবহার
করিতে উচ্চ মেশিনের বিবরণ :
১১. ব্যবসা আরম্ভ করিবার তারিখ :
১২. লাইসেন্স পূর্বের থাকিলে তাহার নম্বর, তারিখ ও শেষ হইবার মেয়াদ
(অনুলিপি সংযুক্ত যদি পূর্বের থাকে) :
১৩. ব্যবসার ধরন :
১৪. (ক) প্রতিষ্ঠানটি হোডিং ভুক্ত কিনা ? :
- (খ) হোডিং ভুক্ত হলে ট্যাক্স
পরিশোধিত কিনা ? :
- (গ) পরিশোধ না করার কারণ :

আমি নিম্নস্বাক্ষরকারী এই মর্মে ঘোষণা করিতেছি যে, উপরোক্ত বিবরণী আমার জ্ঞান ও জ্ঞানমতে সত্য। কোন তথ্য
পূর্বদৃষ্টিতে অসত্য প্রমাণিত হইলে ট্রেডলাইসেন্স বাতিলসহ আইনানুগ ব্যবস্থা গ্রহন করিলে আমার কোন প্রকার আপত্তি থাকিবে
না। আমি পৌরসভার ট্রেডলাইসেন্স সম্পর্কিত লাইসেন্সে প্রদত্ত শর্তাবলী মানিয়া চলিতে বাধ্য থাকিব।

পৌরসভার দরখাস্তকারীর স্বাক্ষর

তারিখঃ :

লাইসেন্স পরিদর্শকের মতামতঃ

ANNEX-C: DISTRIBUTION OF INDUSTRIES IN SREEPUR MUNICIPALITY

Ward No	Mohalla Name	Number of industry (%)	Ownership
01	Sreepur north	07 (5.74)	Proprietor

	Baghmara	03 (2.46)	Proprietor
		01 (0.82)	Limited company
02	Sreepur south	04 (3.28)	Proprietor
	S: vangnahati	01 (0.82)	Limited company
03	Lohagas	03 (2.46)	Proprietor
		01 (0.82)	Limited company
	Guchhagram	01 (0.82)	Limited company
04	Vangnahati	12 (9.84)	Limited company
	Chapilapara	03 (2.46)	Limited company
	Bairagirchala	02 (1.64)	Limited company
05	Gilarchala	03 (2.46)	Proprietor
		15 (12.29)	Limited company
	Keowa s: part	01 (0.82)	Proprietor
		06 (4.92)	Limited company
	Vatjori	02 (1.64)	Limited company
	Madokhlal	03 (2.46)	Limited company
06	Uzilaba	01 (0.82)	Proprietor
		03 (2.46)	Limited company
	Keowa	01 (0.82)	Proprietor
		08 (6.56)	Limited company
07	Beryderchala	01 (0.82)	Proprietor
		11 (9.02)	Limited company
	Dokhala	04 (3.28)	Limited company
	Channapara	02 (1.64)	Proprietor
		02 (1.64)	Limited company
08	Keowa w: part	10 (8.2)	Proprietor
		07 (5.74)	Limited company
09	Bahararchala	04 (3.28)	Limited company
Total		122	

ANNEX-D: AN APPLICATION FORM FOR ‘NO OBJECTION CERTIFICATE’

শ্রীপুর পৌরসভা কার্যালয়

শ্রীপুর গাজীপুর।

বরাবর,
চেয়ারম্যান
শ্রীপুর পৌরসভা
শ্রীপুর, গাজীপুর।

বিষয় : অনাপত্তি (এন,ও,সি) সনদের জন্য আবেদন।

জনাব,

সম্মান পূর্বক নিবেদন এই যে, আমি.....

পিতা/স্বামী..... স্থায়ী ঠিকানা গ্রামঃ.....

ওয়ার্ড নং..... পোঃ..... পৌরসভা-শ্রীপুর, জেলা-গাজীপুর। ফোন নং.....

আপনার পৌর এলাকার একজন ব্যবসায়ী। বাড়ী ঘর নির্মাণ/সীমানা প্রাচীর/দোকান পাট/পোন্ডি ফার্ম/ডেইরী ফার্ম/কারখানা স্থাপনের জন্য সনদ পত্র প্রয়োজন। উক্ত সনদপত্র প্রদানের জন্য মহোদয় সমীপে আবেদন করছি।

প্রতিষ্ঠানের নাম :-.....

খতিয়ান			দাগ নং			অবস্থান
সি,এস	এস,এ	আর,এস	সি,এস	এস,এ	আর,এস	মৌজার নাম
						জে,এল,নং
						জমির পরিমাণ
						ওয়ার্ড নং

অতএব, বিনীত নিবেদন আমাকে উক্ত সনদপত্র প্রদান করতে মহোদয়ের মর্জি হয়।

আবেদনকারীর স্বাক্ষর

সংযুক্তি :- ১। ছবি দুই কপি ২। পরিশোধিত ট্যাক্স ও খাজনা রশিদের ফটোকপি ৩। দলিল ৪। সার্ভেয়ার/সার্বভৌম প্রকৌশলী কর্তৃক সীমানা নির্ধারণী প্রত্যয়ন পত্র ৫। পরিবেশ বিষয়ক অফিসার নামা ৬। মৌজা ম্যাপ ৭। ডিসিয়ার ৮। খারিজ পর্চা ৯। জমির চারপাশের মালিক গনের না দাবী ১০। ভাড়া ভাড়া ক্ষেত্রে ভাড়ার ডিড।

১। বর্তমানে উক্ত এলাকায় পৌরসভার কোন পরিকল্পনা আছে কি না :-

২। পরিকল্পনা থাকিলে কি কাজের জন্য নির্ধারিত :-

৩। সরেজমিনে পরিদর্শন ও পরীক্ষার পর পরিদর্শনকারীর মতামত :-

শর্ত সমূহ :-

১। পৌরসভার উন্নয়ন পরিকল্পনা অন্তর্ভুক্ত হলে এই ছাড়পত্র বাতিল বলে গণ্য হবে।

২। পরিবেশ দূষণের সন্ধান না দেখা দিলে ছাড়পত্র বাতিল বলে গণ্য হবে।

৩। পৌরসভা যে কোন সময় উক্ত ছাড়পত্র বাতিল করতে পারবে এতে আবেদনকারীর কোন আপত্তি চলবে না।

৪। যদি কোন আর্থিক প্রতিষ্ঠান অর্থ বিনিয়োগ করতে চান, তারা নিজ ঘাটিতে করবেন।

৫। শিল্প কারখানা, পোন্ডি, ডেইরী ফার্ম এবং মার্কেট এর ট্রেড লাইসেন্স প্রদানের পূর্বেই প্রদান অনুমোদন করতে হবে।

Annex-F: Questionnaire for municipal-staff

(This information will be used for academic research purposes)

Bangladesh University of Engineering and Technology, Dhaka
Department of Urban and Regional Planning
Thesis Title: Industrial Development and Environmental Management Practices
in Sreepur municipality, Gazipur.

Four municipal-staff are involved in the process of 'NOC' providing for environmental management practices in Sreepur municipality. So, questionnaire has four parts based on the role of four staff desks.

Part-I: Desk of Surveyor

(Surveyor is responsible to verify the documents of land ownership in the process of 'NOC' providing)

Q-01: What is the legal base to provide NOC for setting industry?

- i. Local Government (Municipality) Act, 2009
- ii. Municipal Manual
- iii. Municipal Ordinance 1977
- iv. Other (Specify.....)

Q-02: What types of landownership documents are required to submit for 'NOC'?

- i. Deed of Landownership
- ii. Agreement for Rented / Lease Land
- iii. Duplicate Carbon Record
- iv. Kharij Parcha
- v. Mouza Map
- vi. Boundary Demarcation Certificate
- vii. Others (Please specify.....)

Q-03: How do you verify the documents on land ownership?

- i. Based on submitted documents and through field visit
- ii. Only based on submitted documents.

Q-04: What are the basic parameters to verify through field visit?

- i. Area of the plot
- ii. Demarcation of the plot boundary
- iii. Others (Please specify.....)

Q-05: Are you only Surveyor in this municipality?

- i. Yes.
- ii. No.

Q-06: If no, how many number of surveyor in this municipality?

- i. One.
- ii. Two.
- iii. Three

Q-07: If yes, how many numbers of applications for 'NOC' you receive in monthly?

- i. Two.
- ii. Three
- iii. Four
- iv. Five

Q-08: How much time you need for one application?

- i. One Week.
- ii. Two Week
- iii. Three Week

Q-09: Do you face any problem during precede your role?

- i. Instruments for area measurement
- ii. Lack of vehicles for field visit
- iii. Time limitation
- iv. Others (Please specify.....)

Q-10: Please put your suggestion to overcome existing problems.

- i. Recruitment of manpower
- ii. Logistics support
- iii. Legal base
- iv. Others (Please specify.....)

Thank you

Part-II: Desk of Sub-Assistant Engineer (Civil)

(Sub-Assistant Engineer is responsible to confirm the specific documents regarding environmental management aspect in the process of 'NOC' providing)

Q-11: What types of the specific documents are required to submit getting 'NOC' for industry set up?

- i. IEE/EIA report
- ii. ETP document
- iii. Undertaking regarding environment
- iv. Clearance from Surrounding Land Owners
- v. Others (Please specify.....)

Q-12: If the specific documents are not available with the application, what is the next step in the process?

- i. Pending the application
- ii. Letter to the applicant
- iii. Others (Specify.....)

Q-13: Is there any time limit to provide 'NOC' after submission of the application form?

- iv. Yes.
- v. No.

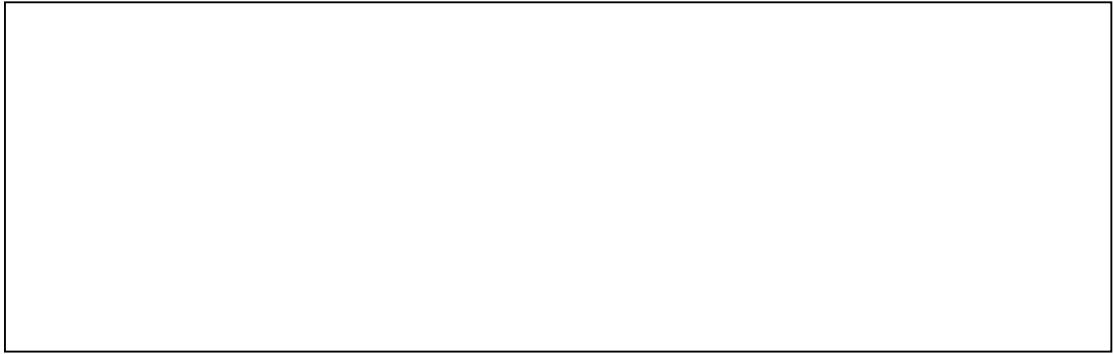
Q-14: If yes, what is the time limit to provide 'NOC' after submission of the application form?

- i. One month
- ii. Two months
- iii. Three months
- iv. Four months

Q-15: Is there any other responsibility of you in the process of 'NOC' providing?

- i. Verify Location Map
- ii. Verify Site Plan
- iii. Others (Specify.....)

Q-16: How does the entire process of providing 'NOC' step forward after the submission of the application form?



Q-17: Do you have any proposal for improving the process of 'NOC' providing?

- i. Different application form based on environmental impact
- ii. Prescribed format for the specific documents
- iii. Recruitment of manpower
- iv. Logistics support
- v. Others (Please specify.....)

Thank you

Part-III: Desk of Assistant Engineer (Head of the Department)

(Assistant Engineer is responsible to justify the specific documents regarding environmental management practices in the process of 'NOC' providing for industry set up in municipal area)

Q-18: Please state the mandatory issues in the specific documents controlling the environmental degradation.

Q-19: Do you have any strategic base for the process of 'NOC' providing?

- i. Yes.
- ii. No.
- iii. Others (Specify.....)

Q-20: If no, how can justify the specific documents?

Q-21: If yes, what type of it is?

- i. Environmental Management Plan
- ii. Others (Specify.....)

Q-22: When it was prepared for the municipality?

- i. Recently.
- ii. 2 years ago.
- iii. 5 years ago.
- iv. Others (Specify.....)

Q-23: How does Sreepur municipality work with “the Department of Environment” regarding Environmental Clearance?

- iii. Provide 'NOC'
- iv. Provide 'Trade license'
- v. Provide 'Lay out plan' approval
- vi. Others (Specify.....)

Q-24: Please identify the limitations in the process of 'NOC' providing for environmental management practices.

- i. Institutional weakness
- ii. Lack of skilled manpower
- iii. Need legal base
- iv. Lack of monitoring
- v. Lack of coordination with national relevant agency
- vi. Others (Specify.....)

Q-25: Please give your proposal to overcome the limitation in the process of 'NOC' providing?

- i. Prescribed format for the specific documents
- ii. Legal base (Environmental Management Plan)
- iii. Separate section for environmental management practices
- iv. Recruitment of skilled manpower
- v. Logistics support
- vi. Coordination with national agencies
- vii. Others (Please specify.....)

Q-26: What the reference of the law stated in 'NOC' certificate?

- i. Department of Environment
- ii. Department of fishery
- iii. Ministry of Labour
- iv. Others (Specify.....)

Thank you

Part-IV: Desk of Mayor (Head of the Municipality)

(Mayor approved the application form for providing 'NOC')

Q-27: Please state your considerations to approve the application for NOC providing.

- i. Recommendation by Assistant Engineer
- ii. Recommendation by local councilor
- iii. Updated holding Tax receipt
- iv. Others (Specify.....)

Q-28: How many year you passed as a mayor of this municipality?

- i. Recently.
- ii. 2 years ago.
- iii. 5 years ago.
- iv. Others (Specify.....)

Q-29: Do you think Sreepur municipality has enough strength to control the environmental degradation in municipal area?

- i. Yes.
- ii. No.

Q-30: If no, please identify the limitations in the process of 'NOC' providing for environmental management practices.

- i. Institutional weakness
- ii. Lack of skilled manpower
- iii. Need legal base
- iv. Lack of monitoring
- v. Lack of coordination with national relevant agency
- vi. Others (Specify.....)

Q-31: Please give your suggestion to improve the environmental management practices in Sreepur municipality.

- i. Legal base (Environmental Management Plan)
- ii. Separate Department for planning and development including environmental management
- iii. Recruitment of skilled manpower
- iv. Coordination with national agencies
- v. Others (Please specify.....)

Thank you

.....
Signature of the interviewer
Date: