CHAPTER 1

INTRODUCTION

1.1 Definition

Environmental Pollution in Dhaka City is defined as responsible interaction with the environment to avoid depletion or degradation of natural resources and allow for long-term environmental quality. The practice of environmental pollution in Dhaka City helps to ensure that the needs of today's population are met without compromising the ability of future generations to meet their needs.[1]

Dhaka is the most densely populated urban area in the world, witnessed a very fast growth of urban population in recent times with population above 12 million. Due to imprudent urbanization, the city is confronting many problems; environmental problem is a prominent one and a result of increased solid waste. This increasing rate of solid waste generation has therefore become a complex issue in the city as Dhaka City Corporation (DCC) is having hard time to manage it. However, environmental degradation due to unplanned waste disposal and improper waste management has always been an incognizant issue. Dumping of garbage and waste on busy and important streets and roads is now a common scene in Dhaka. It creates unbearable nuisance for the people of the area. Hence, waste management is required to be the topmost priority in urban planning in DCC area.

In Dhaka City Corporation (DCC) area 60% houses are of low income, 37% middle income and the rest 3% constitutes high-income houses. The old part of Dhaka is more densely populated than the new part of Dhaka. There are over 1,000 small and large industries including 149 tanneries, about 500 clinics and hospitals in Dhaka Metropolitan Area. DCC is headed by a Mayor who is an elected representative of the people. The Chief Executive Officer (CEO) a senior level bureaucrat deputed by Government, is responsible for overall management of five principal areas of responsibility in DCC, i.e. engineering, conservancy, revenues, accounts and health. Refuse collection and disposal from DCC area is the responsibility of the Chief Conservancy Officer

[1] MD. JahidHossainDolon, *"International Environmental Law With Bangladesh Perspective",* 3rd ed.(Dhaka: University Publications, 2014),p.28.

(CCO) who manages it with the support of a Deputy Chief Conservancy Officer (DCCO) and two Assistant Chief Conservancy Officers (ACO). The Assistant Conservancy Officers are again assisted by ten Conservancy Officers working in ten zones with Conservancy Supervisory Inspectors (CSI), Conservancy Inspectors (CI) and Cleaners. The conservancy department is supported by the transport department controlling the garbage vehicles and mechanical department for maintenance of vehicles and equipment used in landfill sites (bulldozers, excavators etc). DCC has as many as 19 sources of income of its own but four or five of them contribute around 65% of total earnings. Holding (property) taxes are above 55% of DCC revenue earning. Most of the revenue expenditure (55%) is incurred for salaries and wages. The own source income for the year 2001-2002 was Tk. 1557.2 million and other source (Government) was Tk. 540.5 million. The subsidy from Government for last five years is from 25.77% to 38.43%. The expenditure incurred for the development only ranges from 51.17% to 64.25% during last five years. DCC charges conservancy tax of 2% based on property's annual rental value. There is always negative correlation between income and expenditure. The expenditure of SWM is 52.87% more than the income. The per capita expenditure for SWM in Dhaka is very low (Tk. 53.00) compared to other Asian cities such as Bombay Tk.304.00, Manila Tk. 192.00 and Bangkok Tk. 84.00 (Enayetullah, 1994). DCC spent 15.42% of the total annual expenditure for SWM (Yousuf, 96). The solid waste management cost of DCC is Tk. 313.12 /cubic meter of which collection cost is Tk. Dhaka City Corporation collects municipal wastes which are accumulated in DCC's bins or containers. About 7146 cleaners are employed for street sweeping and collection of waste found in places other than dustbin, road side, open spaces, ditches etc by hand trolley. It has 2,080 hand trolleys for primary collection of waste. DCC has 128 demountable container carrier trucks for collection of accumulated waste in 414 container and 242 open trucks to collect waste from municipal bins at different locations. In some residential areas like Kalabagan, Dhanmondi, Banani, Gulshan, Baridhara, Uttara 'house to house' waste collection service has been organized by some private initiative. Rickshaw vans are used for collection of waste from houses to municipal containers. 50% of population are using waste enclosure or bins, 20% of population using roads to dispose of waste, 20% of population using drains to dispose of waste and 10% of population using open ground to dispose of waste (MMI, 1992). The total amount of solid waste generated everyday in DCC area is about 4500 to 5000 tons. According to Mott Macdonald International Ltd report of 1991, waste stream fraction of Dhaka city is 46.8% domestic, 21.8% street sweeping, 19.2%

commercial, 12.9% industrial and 0.5% clinical. Solid waste flow of a residential area is 58.7% domestic, 33.08% street sweeping, 7.9% commercial and 0.32% clinical (Salam, 2001). Analysis of physical composition of domestic waste show that the primary component is food waste covering 72.50%, At present DCC has no waste treatment and recycling plant. Informal sector exists in resource recovery and recycling of solid waste in Dhaka polythene 13.70% (production banned by now), paper and cardboard 5.63%, and plastic 3.31%. City.

1.2 Rational of the Study

People dump garbage on the busy roadside due to lack of proper supervision of both Dhaka North and Dhaka South City Corporations causing serious health hazard to the city dwellers. The metal dustbins set up in the areas regularly get overflowed with wastes, forcing waste collectors to dump the waste by the roadside. On roads in Dhaka and in front of schools, there are dustbins. The students, especially the children are breathing foul odour and are being diagnosed with diseases. There have been longstanding allegations of failure in waste management against the two city corporations but officials keep turning a blind eye to the crucial public health hazard issue of great importance. Dhaka has turned into a city of garbage." The rational of the study is to bring out the reason why there is no environmental sustainability in Dhaka City and what can the reason for it.

1.3 Objectives of the study

Dhaka is the most densely populated urban area in the world, witnessed a very fast growth of urban population in recent times with population above 12 million. Due to imprudent urbanization, the city is confronting many problems; environmental problem is a prominent one and a result of increased solid waste. This increasing rate of solid waste generation has therefore become a complex issue in the city as Dhaka City Corporation (DCC) is having hard time to manage it. However, environmental degradation due to unplanned waste disposal and improper waste management has always been an incognizant issue. Dumping of garbage and waste on busy and important streets and roads is now a common scene in Dhaka. It creates unbearable nuisance for the people of the area. Hence, waste management is required to be the topmost priority in urban planning in DCC area. The main objective of this study is to bring out the reason why there is no environmental sustainability in Dhaka City and what can be its solution.

1.4 Scope of the study

In order to gain a broad perspective on and nuanced understanding of the environmental sustainability in Dhaka City, my original aim was to find out the present environmental condition in Dhaka City. And on that's reason I spend about one month on gathering information from the different sources including scholarly writings, publication of different organizations, visiting and interviewing of different person.

1.5 Methodology of the Study

The methodology of the present research work includes- Review of related literature and examination of important principal document, law Book and Based, Journals, law ripcord DLR, ILR, Periodicals and Judicial precedence concern with Environmental law.

The work also includes- Case study, data collection, concerning cases instituted in and disposed of every year and interviewing of litigant, Lawyers, Law officers and Judges. Where necessary and expending data would be collected from primary sources litigants, Lawyers and Judges would be selected for interview. On the basic of convenience and expedience, in cases of need other related work such as using web side, on visiting library could also be carried out. Basically, the work would be a combination of description and anilities. Further the work also is a work of theoretical or operational research.

In final, as regards approach the work would be blend of two approaches-

- Historical Approaches
- Analytical Approaches

CHAPTER 2

ENVIRONMENTAL POLLUTION

Environmental Pollution is defined as responsible interaction with the environment to avoid depletion or degradation of natural resources and allow for long-term environmental quality. The practice of environmental pollution helps to ensure that the needs of today's population are met without jeopardizing the ability of future generations to meet their needs. When we look at the natural environment, we see that it has a rather remarkable ability to rejuvenate itself and sustain its viability. For example, when a tree falls, it decomposes, adding nutrients to the soil. These nutrients help sustain suitable conditions so future saplings can grow. When nature is left alone, it has a tremendous ability to care for itself. However, when man enters the picture and uses many of the natural resources provided by the environment, things change. Human actions can deplete natural resources, and without the application of environmental sustainability methods, long-term viability can be compromised.[2]

2.1 A preferred definition of Environmental Pollution

Environmental Pollution is "the ability to maintain things or qualities that are valued in the physical environment.[3] This is the simplest and most fundamental way to express the concept. But people using the term environmental sustainability can specify or elaborate the term further to add extra meaning or to apply the concept to more specialized contexts.

What is the physical environment?

This is the physical surrounds to something. For example, the land, waters and atmosphere, physical resources and the buildings and roads and other physical elements go to make up the urban environment. Rural environments are made up of the farms and living areas of people and

---

[2] Philippe Sands, *"Principles of International Environmental law",* 2nd ed.(Cambridge : University Press, 2003),p. 84.

[3] *The Environmental Sustainability Act, 2003*

the land and waters and atmosphere and biological elements (species utilized by agriculture, pest species, and native species, and ecological communities both human induced and natural). Natural environments are those where the influence of wild species (indigenous and naturalised) is dominant or very strong. Physical resources, of all sorts, including mineral resources, can be considered to be part of the environment. Physical environments can be considered on all scales from the micro to the local, global and even larger scales.

There is no sharp distinction between the environmental and other domains (eg. Social and economic) - in fact the content of each domain overlaps other domains massively. The key to understanding doesn't lie in trying to set non-overlapping boundaries between the domains but lies in being clear about the focus of different domains.[4]

What makes an issue a sustainability issue?

A sustainability issue arises whenever a valued system, object, process or attribute is under threat. The existence of the valued system, object, process or attribute could be threatened or its quality could be threatened with serious decline. In other words, there is a sustainability issue whenever there is something that is valued that faces the risk of not being maintained. Whenever there is a strong sense of urgency, there is always a sustainability issue involved. This urgency could relate to something that already exists or to an understood potential. For example biodiversity might be threatened with extinction or the chance to realise the potential of a human being might be threatened, for example, if they remain in poverty or their lives are threatened by violence or disease. (The latter would usually be thought of as being social sustainability issues.)

What exactly are we trying to maintain in the physical environment and who decides?

There is no automatic, fixed agenda built into the term environmental sustainability. We have to look to the context to see what might be sustained. And many people and organizations already have well developed ideas about what aspects of the total 'environment' should be sustained when environmental sustainability is pursued. In a place like Victoria, with our culture, political processes and physical environment, there is strong public pressure to maintain (sustain) things like:

---

[4] Philip Sutton, *ibid.*

• ecosystem services (eg. nutrient cycling, the water cycle, natural water

purification, climate moderation, soil protection

• high quality urban environments

• areas of natural beauty

• other species and ecological communities

• the user value flowing from physical resources (eg. minerals, energy, renewableresources, water).[5]

What motivates us to want to sustain something in the physical environment?

We might want to sustain something in the physical environment because it is useful to us: e.g. the quality of local urban environments. Or we might want to do it because we care about the wellbeing of other people or other species - for their sake, not ours.

That is we can be motivated by utilitarian concerns and/or altruism. Sometimes we maintain something in the environmental domain in order to make it possible to achieve another goal in another domain. For example, we might sustain marine habitats in order to support the livelihood of coastal townships. Or we might sustain renewable resources so that we can support economic development or genuine progress.

How long should we try to sustain something?

This question can only be answered after deciding specifically what needs to be sustained and why. For example, ecosystems services for clean air would need to be sustained as long as there are living things (including people) that need to breathe clean air. For all practical purposes that means 'forever '. Living species seem to last on average a few million years before becoming extinct though some may evolve into new species. So if we maintained a natural extinction rate for species it is so low that for practical purposes we would need to manage in the here and now as if we wanted all species to survive, effectively 'forever'.

---

5 *Ibid,* p.9.

Sustaining the recycling of certain materials may only need to continue for as long as those material types are needed technologically, and depending on the pace of technical change this could be for centuries or for decades. It is risky to assume that resources are only needed for a short time however as society might find new uses for materials as technology, lifestyles and environmental awareness develop.

When it comes to trying to sustain habitat on a site-specific basis, very specific localized habitat or ecological community patches might need to persist for anywhere between thousands of years and just a few years - depending on the ecological system involved - provided all of the dependent species can access these habitat or ecological community types somewhere consistently and at adequate scale within their local ranges 'forever'.

Is there any connection between environmental sustainability and social or economic sustainability?

Since humans depend in countless ways on the physical environment (both natural and human constructed) sustaining desired environmental conditions directly contributes to the sustaining of people and human societies, that is, to social sustainability. The viability of the economy clearly depends on environmental resources and service flows so economic sustainability depends on environmental sustainability.

More generally it can be seen that sustainability in one domain can be necessary for sustainability in another. Sustainability requirements can be mapped to show complex dependencies across domains. We classify sustainability issues into separate domains, not because the sustainability issues are unrelated, but for reasons of convenience and tradition, for example, to allow specializations to develop in R&D and administration, to break up complex whole into mentally manageable chunks, to reflect historical connections, etc.[6]

[6] Philippe Sands, *ibid* ,p. 89.

2.2 Use the Definition of Environmental Sustainability to Facilitate Effective Action

If an interest in Environmental Pollution is not to be simply utopian it must connect to practical and adequate action, undertaken in the hope that environmental sustainability can be achieved. But simply knowing the core meaning of environmental sustainability doesn't make it clear how society should pursue effective action to achieve environmental sustainability. To overcome this problem the bare bones a suitable action-framing methodology is set out below. Two principles should drive this interest in the practical aspects of Environmental Pollution

1. double practicality (getting things done but also making sure that that what is done is really worthwhile)

2. strategic optimism combined with tactical pessimism (assume that great goals can be achieved, but also assume that masses of things can and often will go wrong on the way to achieving the great goals)

From these principles, a hierarchy of practical action programs (in order of precedence) can be developed:

1. mission practicality (adopt a coherent mission and set out to complete it)

2. optimistic practicality (build capabilities to match aspirations)

3. pessimistic practicality (cut the suit to match the cloth)

A good way to go about elaborating the environmental sustainability mission is to use a 'back casting from principles' method to create an anticipatory adaptive management system.[7]

[7] Birnie.P And Boyle, "*International Law And Environment*" 2nd ed. (Oxford: Clarendon Press, 1992), p.20.

CHAPTER 3

CURRENET SITUATION OF DHAKA CITY

3.1 Dhaka South City Corporation

Dhaka South City Corporation (DSCC) is one of the two municipal corporations in Dhaka created when the former Dhaka City Corporation was divided into two. The Corporation was created by the Local Government (City Corporation) Amendment Bill 2011 on 29 November 2011.[8]Dhaka South City Corporation consists of 57 wards covering the thanas of Maghbazar, Sabujbagh, Azimpur, Motijheel, Malibagh, Dhaka Kotwali, Sutrapur, Bangsal, Wari, Gendaria, Lalbagh, Hazaribagh, Dhanmondi, Shahbagh, New Market, Khilgaon, Kamrangirchar& some others. According to the existing law, the executive power of the Corporation vests in and exercised by the Mayor/Administrator. The Corporation constitutes Several Standing Committees and other Committees to monitor and guide the diversified activities of the organization. The Mayor/administrator is assisted by the Chief Executive Officer, who in turn, is assisted by the Secretary, the Heads of Departments and Zonal Executive Officers.

The waste disposal systems of the South city corporations lie in awful state, thereby being unable to relieve the city dwellers of pungent smells from the roadside waste and garbage cans.The situation is at its worst during rainy season when rubbish litter the roads outside dustbins and get washed away across the streets. Every day Dhaka South City Corporation (DSCC) produces 3,300 tons of domestic wages which is a big problem for the City Corporations to manage. It causes air and environmental pollution and health hazards to the city dwellers.Despite of huge limitations of the City Corporation, it has raised its capacity of waste collection over the time. The domestic waste collection rate has been significantly increased from 35% in 2005 to 70% in 2015 in Dhaka South City Corporation (DSCC). The waste generation in DSCC is 3,300 tons/day. But, it has the collection capacity of total 2200 -2300 tons/day along with collection and recycling of another 300-350 tons/day by Private Sector, while, about 2000 tons of waste are left/day by DSCC, which

[8] *Bangladesh Sangbad Sangstha*, Reports on, "JS passes Local Government (City Corporation)(Amendment) Bill, 2011". 6 September 2013.

creates environmental pollution and blocking the drainage system in the city. Each City Corporation (CC) has one central Waste Disposal Centre. The DSCC's one is at Matuail, Demra, Dhaka and DNCC's one (50 acres) is at Amin Bazar, Dhaka. Dhaka South City Corporation is responsible for secondary waste collection from street side dustbins in the city's 57 wards, and transport the wastes to final disposal sites . Residents are responsible to carry their waste to certain location of the dustbins.A lot of cleaners are sweeping street and collecting wastes found in different places other than dustbins, road sides, and other spaces. DSCC authority is using hand trolley for door to door and primary waste collection. Rickshaw van is used for house to house waste collection to municipal container. South City administration is using Container carrier trucks, compactor trucks to collect accumulated wastes from bins at different location.A huge number of people in Dhaka South areas are live in the slums. Individual waste generation by slum dwellers can be small but total waste generation is high as the number of slum dwellers is quite high in the city. Door to door waste collecting workers do not offer their services to slum areas, because slum dwellers are unable to pay the service charges.On the other hand, there are no community waste bins in the slum areas and waste gets scattered in the open spaces for longtime, these wastes cause water pollution, air pollution and different kinds of dangerous diseases in slum areas. City Corporation does not pay attention to clean up slum areas as compared to the developed urban areas and the local governing bodies is reluctant to increase the operational costs and budget for the same.

However, the city corporation only collects less than half of the solid waste produced which means the wastes remain in the dustbins for at least three consecutive days. Although the number of the dustbins is inadequate, construction of new solid waste management facility is a big challenge in Dhaka South because of limited space. The resultants are overflow of dustbins and careless dumping of wastes in the south city street along with the consequent odor and ground surface pollution as well as visual contamination.

3.2 Dhaka North City Corporation

Dhaka North City Corporation (DNCC) is an autonomous body that governs 36 northern wards of Dhaka. It is one of two municipal corporations in Dhaka. AnnisulHuq is the current mayor of the Dhaka North City Corporation, after being elected in April 2015.Dhaka North City Corporation consists of 36 wards covering the thanas of Mirpur, Mohammadpur, Sher-E-Bangla Nagar, Pallabi,

Adabor, Kafrul, Dhaka Cantonment, Tejgaon, Gulshan, Rampura, Banani, Khilkhet, Lalmatia, Kallanpur, Baridhara, Badda, Uttara& some others.

The Dhaka North City Corporation (DNCC) is primarily responsible for collecting and managing waste in Dhaka North areas. Every day Dhaka North City Corporation (DNCC) produces 2700-2800 tons of domestic wages which is a big problem for the City Corporations to manage. Waste is thrown on roadside and places other than dustbins due to lack of proper and sufficient waste infrastructure (bins) and collection systems in city. Cleaners are employed by DNCC for street sweeping and collection of waste found in places other than dustbins, road side, open spaces, ditches etc. by hand trolley.City authority is using hand trolley for door to door and primary waste collection. Rickshaw van is used for house to house waste collection to municipal container. City administration is using Container carrier trucks, compactor trucks to collect accumulated wastes from bins at different location.In some developed areas like Gulsan, Dhaka Cantonment, Baridhara, Banaini, the city corporation is utilizing compactor trucks for the waste collection system .Improperly managed and installed garbage points without the proper structural considerations, the citizens are forced to share bins and containers to dispose their garbage and sometimes beside the bins, even on the street. There are lots of garments factories in north city.Plastic bags and garments wages are dumped on the busy roadside due to lack of proper supervision of the authority.

At BaddaNotun Bazar near the US Embassy, three men were seen loading a truck with roadside dumped wastes. And the dustbin occupied a big portion of the main road. In Notun Bazar area blocking a major part of the busy road waste dumping has gone on for years, but there is none to care. Trucks collect wastes regularly but due to huge number of household wastes, some of the wastes remain on the roadside.Dhaka North City Corporation chief waste management officer Bipan Kumar Saha said that everyday 2700-2800 tons of solid wastes were being generated from DNCC areas. Of which, DNCC could collect only 1,600 tons of wastes.[9]

[9] *The New Age*, (May 23, 2015),p.9

3.3 Some present and past aspects and scenario of Dustbins and waste in Dhaka city

The government will distribute bins among the residents of the capital's Gulshan and Baridhara areas tomorrow to manage household wastes to build a clean Dhaka city.TheDepartment of Environment (DoE) under the environment and forests ministry will distribute the dustbins under the 3R (waste reduce, reuse and recycle) Pilot Project.Former President and Jatiya Party Chairman HM Ershad and Environment and Forests Minister DrHasan Mahmud will be present at the bins distribution ceremony at House No 4, Gulshan-1, at 10:00am.Official sources said a total of 180,000 bins will be distributed in Dhaka city and 75,000 in Chittagong city under the pilot project. Earlier, a number of bins were distributed in Dhanmondi area of the capital.

3.4 Dustbins ruin business at city market

Businessmen and employees at Khilgaon (Taltala) City Corporation Super Market in Dhaka have complained that they were facing serious trouble in running their businesses as the authorities have kept waste containers in front of their shops for the past few months.Employees of these shops have complained that it was tough for them to attend their workplaces because of bad smell coming from the waste containers. Mohammad Sharif Ninu, managing director of Dhaka Poultry House at the market, told New Age that about two to three months ago the Dhaka North City Corporation employees put the waste containers in front of the market's kitchen shops.The waste container has been kept directly in front of about 15 to 20 shops while waste and dirty water are spilling out of the containers onto the road and foot path.' How can we do our business here?' asked Ninu, adding, 'the city corporation should dump the markets' wastes at some places where there are no shops.' He also alleged that the customers were avoiding his shop since the waste containers had been kept here.[10] Employees of Tawhid Enterprise said one of the shop's employees had been absent for days as he could not work amidst such bad smell.' We are working here in an inhuman situation. The authorities must take action on this issue,' said SM Saiful Islam, an employee from Sugandha Co-Operative Society. Some businessmen have alleged that not only the wastes of this market but also

[10] Mohammad Sharif Ninu, *"Personal Interview",* 15th February 2016.

wastes from adjacent houses were also dumped into the dustbins.Leaders of Khilgaon (Taltala) City Corporation Super Market Traders' Association submitted an application to the DNCC's chief waste management officer Bipan Kumar Saha on May 25 this year.In the application they urged the officer to remove the dustbins to the back of the kitchen market. In the application they also provided the map where the dustbins could be transferred.TheDNCC chief waste management officer told New Age that he had sent his crew to remove the dustbins and set it at the proposed place.'But then some people came and protested at the decision of putting the dustbins at that place. So what can we do?' he asked. He urged the businessmen of the market to select a place for keeping the dustbins. Meanwhile, the sufferers alleged that they also protested at the city corporation's decision to put the waste containers in front of their shops but it did not work. The association president, HumayunKabir Azad, told New Age on Tuesday that there were about 850 shops at the market while this type of disturbance could hamper businesses of the market .He admitted that city corporation workers had come to the market to remove the dustbins.' The place which we have selected is the backside of the market where a graveyard is situated. Our selected place is far from the graveyard's main gate but unfortunately a landlord protested at it and the DNCC yielded to it,' he added.[11]

[11] *The New Age*, (11th January, 2016), p.9.

CHAPTER 4

RELEVANT LAWS AND ORDINANCES IN BANGLADESH

Unfortunately, there is no independent law in Bangladesh to address the problems of solid waste thus the solid waste management is administered by the local urban government. For instance, Dhaka City Corporation is responsible for removing and disposing solid waste in Dhaka city and Dhaka City Corporation has local law to regulate waste management which was formed in 1983. The provision of this Ordinance is to removal of all the refuse from all public streets, public latrines, urinal drains, and dustbins and to collection and the disposal of such refuse. However, the main constraints of provision of the Ordinance are the shortage of funding, insufficient subsidies and local institutes. Thus, local government has not been able to effectively collect and dispose all the waste properly. This is a reason for which almost all the waste is found in the roadside dustbins and in the drain.[12]

4.1 The Bangladesh Environment Conservation Act, 1995 Act No. 1 of 1995

(1) This Act may be called the Bangladesh Environment Conservation Act, 1995.

(2) It shall come into force on such date as the Government may, by notification in the Official Gazette, 1 specify and it shall be brought into force in different areas on different dates.

12 AzminaKarim, "*Crisis in Policy Implementation: Waste Management in Bangladesh*" 2nd ed. (Dhaka: Asian Publication), p. 15.

2. Power and functions of the Director General.

(1) Subject to the provisions of this Act, the Director General may take such measures as he considers necessary and expedient for the conservation of the environment, and improvement of environmental standards, and for the control and mitigation of environmental pollution, and he may issue necessary directions in writing to any person for the discharge of his duties under this Act.

(2) In particular and without prejudice to the generality of the foregoing power, such measures may include all or any of the following :-

(a) co-ordination with the activities of any authority or agency having relevance to the objectives of this Act;

(b) prevention of probable accidents which may cause environmental degradation and pollution, undertaking safety measures and determination of remedial measures for such accidents and issuance of directions relating thereto;

(c) giving advice or, as the case may be, issuing directions to the concerned person regarding the environmentally sound use, storage, transportation, import and export of a hazardous substance or its components.

(d) conducting inquiries and undertaking research on conservation, improvement and pollution of the environment and rendering assistance to any other authority or organization regarding those matters;

(e) searching any place, examining any equipment, manufacturing or other processes, ingredients, or substance for the purpose of improvement of the environment, and control and mitigation of pollution; and issuance of direction or order to the appropriate authority or person for the prevention, control and mitigation of environmental pollution;

(f) collection and publication of information about environmental pollution;

(g) advising the Government to avoid such manufacturing processes, commodities and substances as are likely to cause environmental pollution;

(h) carrying out programs for observation of the quality of drinking water and preparation of reports thereon, and rendering advice or, as the case may be, issuing direction to the concerned persons to follow standards for drinking water.

(3) A direction issued under this section may include matters relating to closure, prohibition or regulation of any industry, undertakings or processes, and the concerned person shall be bound to comply with such direction: Provided that-

(a) the Director General shall, before issuing a direction of closure or prohibition of an industry, undertaking or process, send to the owner or occupier thereof a written notice so that he gets reasonable opportunity to make that industry, undertaking or process environmentally sound; and

(b) where the Director General considers it appropriate, he may also specify in the notice that actions under sub-section (2) of section 4A may be taken if, pursuant to the notice, measures are not taken to make the relevant activities environmentally sound:] Provided further that, if the Director General considers that, due to a particular environmental pollution, the public life is likely to be in danger and that urgent action is necessary, he may immediately issue necessary directions.

(4) A time limit may be specified by the Director General for carrying out a direction issued under this section.

3. Information to the Director General regarding environmental degradation or pollution.- (1) Any person affected or likely to be affected as a result of pollution or degradation of the environment may, in the manner prescribed by rules, apply to the Director General for remedy of the damage or apprehended damage.

(2) The Director General may hold a public hearing and take other measures for disposing of an application made under this section.

4. Environmental Clearance Certificate.-No industrial unit or project shall be established or undertaken without obtaining, in the manner prescribed by rules, an Environmental Clearance Certificate from the Director General.

5. Formulation of environmental guidelines.- The Government may, by notification in the official Gazette from time to time, formulate and publish environmental guidelines relating to the

control and mitigation of environmental pollution, conservation and improvement of the environment.

6. Appeal.- (1) Any person aggrieved by a notice, order or direction issued under this Act or rules may, within 30 days from the date of issuance of the notice, order or direction, appeal to the 3 Appellate Authority constituted by the Government and the decision of such Authority on the appeal shall be final and shall not be called in question in any court : Provided that the Appellate Authority may, if it is satisfied that for some unavoidable reason the aggrieved person could not file the appeal within that time, extend the period for filing the appeal by a period not exceeding thirty days.

(2) The Appellate Authority constituted under sub-section (1) may consist of one or more members: Provided that where the Appellate Authority consists of more than one member, the Government shall appoint one of the members to be the Chairman of the Authority.

(3) An appeal filed under this section shall be disposed of within 3 months from the date of its filing.[13]

4.2Dhaka City Corporation Ordinance:

Basic law regarding solid waste management in Dhaka City is Dhaka City Corporation ordinance, which is circulated by the Chief Martial Law Administrator on 24 August 1983, whereas it is consolidate and amend the law relating to the municipal administration of the City of Dhaka.

Section 78: Removal, collection and disposal of refuse

(1) The Corporation shall make adequate arrangements for the removal of refuse11 from all public streets,12 public latrines, urinals, drains and all buildings and land vested in the Corporation, and for the collection and proper disposal of such refuse.

According to the ordinance of Section 78, city corporations are responsible to make adequate arrangement, thus it can be inferred that this ordinance is very loosely structured. Here it is not

[13] *The Bangladesh Environment Conservation Act, 1995.*

mentioned how the ‘adequate arrangement’ is defined that city corporation is expected to make. Not only that, it also states that city corporation is responsible to remove waste from the public street. Since City Corporation is failed to make “adequate arrangement” by providing dustbin or waste container bin, citizen can assume that they can through waste freely in the street and City Corporation is responsible to collect those waste. In this article it is not mentioned that city corporation is responsible only to collect waste from the container bins, latrines and drains; and citizen is obliged to dispose only in the selected bin which is part of adequate arrangements of City Corporation.

(2) The occupiers of all other buildings and lands within the Corporation shall be responsible for the removal of refuse from such buildings and lands subject to the general control and supervision of the Corporation.

(3) The Corporation may create public dustbins or other suitable receptacles to be provided at suitable places and where such dustbins or receptacles are provided, the Corporation may, by public notice, require that all refuse accumulating in any premises or land shall be deposited by the owner or occupier of such premises or land in such dustbins or receptacles Here, based on this article, City Corporation has the ultimate power to decide which place should be used for waste disposal. Thus, when the city corporation selects random places like GEC, the situation is really problematic. Placing public dustbin in GEC and similar areas is unhealthy for general population in many ways. For instance, when an individual passes by the dustbin, he or she can easily get headache and nausea by inhaling polluted air. Besides this short-term health hazard, dumping waste in open place has many long-term health effects such as birth defects. Also flies always sit on the waste and carry virus and bacteria with them. There are many vendor shops, and this dustbin indirectly pollutes the food as flies can sit in food products and people can easily get sick by eating those food products. Despite all these problems, nobody can question the ultimate decision of City Corporation regarding the choice of placing dustbins.

(4) All refuse removed and collected by the staff of the Corporation or under their control and supervision and all refuse deposited in the dustbins and other receptacles provided by the Corporation shall be property of the Corporation.

According to this law the work of informal waste collector is illegal. There is certainly no effort in recognizing the fact that informal sector is the main feature of waste collection and recycling in Bangladesh. More importantly, recycling of solid waste has not been included in the waste management policy regardless of how many people are employed in the system starting from waste collectors to recyclers and how important it is to recycle the waste that is collected. When there is clearly gap in waste generation and collection process due to inadequate material and human resource, City Corporation cannot take top down approach in solving the problem. Over all the four ordinance defined above is very loosely structured, undermining the consequences or implication of this ordinance. [14]

4.2.1 Offense and Penalty regarding breaking the rule of these Ordinances:

When the occupiers do not follow the Ordinance, i.e., "throwing or placing any refuse on any public street or in any place not provided or appointed for the purpose by the Corporation (item 19 of the Third Schedule of the Ordinance)", it shall constitute an offense and punishment shall be meted out after conviction according to Sections 150 –153 of the Ordinance.

Section 151: Punishment

(1) An offence under this Ordinance for which no penalty is expressly provided shall be punished with fine which may extend to ten thousand taka, and if the offence is a continuing one, with a further fine which may extend to five hundred Taka for every day after the date of the first commission during which period the offender has persisted in the offence.

(2) Where a person is convicted of an offence under this Ordinance for the second time, he shall be punished with simple imprisonment for a term which may extend to six months, or with fine which may extend to twenty five thousand Taka or with both.

(3) Where a person is convicted of an offence specified in items 3, 14, 19, 24, 44, or 50 of the Third Schedule the Court convicting him may, on the prayer of the Chief Executive Officer or a person mentioned in section 153, also order or direct-

[14] *The Dhaka City Corporation Ordinance,* 1983.

(a) the stoppage of doing of any act without any licence or permission;

(b) the stoppage of carrying on of any dangerous or offensive trade or the storing of any offensive or dangerous articles;

(c) the stoppage of operation or removal of any brick kiln, lime kiln, charcoal kiln or pottery;

(d) the removal or destruction of any obscene advertisement;

(e) the removal or confiscation of any goods, material, machinery or implement in respect of which or with which any offence mentioned in this sub section is committed, as the case may be.

Section 152: Compounding of offences

The Chief Executive Officer or any person generally or specially authorised by the Corporation in this behalf, may compound any offence under this Ordinance.

Section 153: Cognizance of offences

No Court shall take cognizance of any offence under this Ordinance except on a complaint in writing received from the Chief Executive Officer or a person generally or specially authorised by the Corporation in this behalf.[15]

4.3The Bangladesh Environmental Court Act, 2000

An Act to provide for the establishment of environment courts and

matters incidental thereto. Where as it is expedient and necessary to provide for the establishment of Environment Courts for the trial of offences relating to environmental pollution and matters incidental thereto; It is hereby enacted as follows:-

[15] *Dhaka City Corporation Ordinance,*1983.

1. Establishment of Environment Courts.-(1) For carrying out the purposes of this Act, the Government shall, by notification in the official Gazette, 4establish one or more Environment Court in each Division.

(2) An Environment Court shall be constituted with one judge and, inconsultation with the Supreme Court, the Government shall-

(a) appoint an officer of the judicial service of the rank of JointDistrict Judge, and such Judge shall dispose of cases onlyunder environmental laws; and

(b) if it considers necessary, appoint a judge of the rank ofJoint District Judge for a Division or a specified partthereof to act as the judge of an Environment Court inaddition to his ordinary functions, and the said judge shall,in addition to his ordinary functions, dispose of the casesthat fall within the jurisdiction of an Environment Court.

(3) Each Environment Court shall have its seat at the DivisionalHeadquarter; however, the Government, if it considers necessary, may, by generalor specific order published in the official Gazette, specify places outside theDivisional Headquarter where the court can hold its sittings.

(4) If more than one Environment Court are established in anyDivision, the Government shall, by notification in the official Gazette, specify theterritorial jurisdiction of each such Court.

5. Jurisdiction of Environment Court.- (1) Notwithstanding anythingcontained to the contrary in any other law, a case shall, in accordance with theprovisions of this Act, be directly instituted in an Environment Court for trial of anoffence or for compensation under an environmental law, and only that court cantake cognizance and hold proceedings for trial and disposal of those cases.

(2) An Environment Court shall be competent to impose penalty foroffences under section 5A of this Act and under any other environmental law, toconfiscate an equipment or part thereof, a transport used in the commission of suchoffence or an article or other thing involved with the offence, and to pass order ordecree for compensation in appropriate cases; and in addition, the said court may inthe same judgment make all or any of the following orders keeping in view of thecircumstances of the offence or relevant facts:-

(a) issuing a direction to the offender or other relevant personnot to repeat or continue or, as the case may be, not to do theact or to make the omission which constitutes the offence;

(b) issuing a direction to the offender or other relevant personto take such preventive or remedial measures in relation tothe injury or probable injury to environment as the courtconsiders appropriate keeping in view of the circumstancesof the offence or the relevant facts;

(c) in case of a direction under clause (b), specifying a timelimitand a further direction to submit within the specifiedtime a report to the Director General or other appropriateauthority on the implementation of the direction :Provided that where a direction under clause (b) or (c) is issued, the persondirected may apply to the court within 15 days of the judgment for review of suchdirection and the court shall, after giving the Director General a reasonableopportunity of being heard, dispose of the application within 30 days after it is made.

(3) No Environment Court shall take cognizance of an offence orreceive any suit for compensation except on the written report of an Inspector or anyother person authorized by the Director General:Provided that if the Environment Court is satisfied that a person presented awritten request to the said Inspector or authorized person to accept a complaintabout an offence or a claim for compensation and no action was taken within 60(sixty) days after such request, and that such complain or claim deserves to be takeninto cognizance for the purpose of trial, then the court may, after giving theInspector or the authorized person or the Director General a reasonable opportunityof being heard, directly receive the complaint or claim for compensation withoutsuch written report, or may, if it considers appropriate, direct the said Inspector orthe authorized person to investigate the offence or claim.]

[(4) Omitted.]

[(5) Omitted.]

6. Procedure and power of Environment Court.-(1) Unless otherwiseprovided in this Act, provisions of the Criminal Procedure Code shall be applicablein the case of lodging a compliant about an offence under this Act, trial thereof andthe Environment Court shall be deemed to be a criminal court and it shall follow theprocedure laid down in the Criminal Procedure Code for trial and disposal of a casetriable by the Sessions Court.

(2) Omitted.]

(3) The Environment Court shall be competent to order theinvestigating officer or other person investigating to hold further investigation of theoffence in relation to which a case is pending before it and also to specify the timelimitfor submission of the report of such further investigation.

(4) The Environment Court shall be competent to exercise any powerconferred on it by this Act or any other environmental law.

(5) A case triable by an Environment Court shall be conducted by aPublic Prosecutor or an Additional or Assistant Public Prosecutor on behalf of theState:

Provided that an Inspector or an officer authorized by the Director Generalmay assist the said prosecutor in conducting the case and if necessary may make his submission before the court.

(6) Subject to provisions of this Act, the Civil Procedure Code shall beapplicable to the trial and disposal of a case relating to compensation; and theEnvironment Court, for the purpose of trial and disposal of a suit for compensation,be deemed to be a civil court and shall be competent to exercise all the powers of acivil court.

(7) Hearing of a case at the trial stage shall not be adjourned more thanthree times and the Environment Court shall conclude the trial within one hundredeighty days:

Provided that where the trial is not completed within the above time-limit,the Environment Court shall, within 15 days after expiry of that period, inform theEnvironment Appeal Court of the delay and the reasons for such delay, and shallcomplete the trial of the case within ninety days after the expiry of the abovementioned one hundred eighty days.

7. Conversion of fines to compensation.- (1) Notwithstanding anythingcontained to the contrary in any other law for the time being in force, theEnvironment Court may, if it considers necessary, convert fines imposed by it ascompensation to be paid to persons affected as a result of the commission of anoffence under an environmental law; and the fine or compensation shall berealizable from the person who has been sentenced with the fine.

*8. Appeal.- (*1) Notwithstanding anything contained to the contrary in theCivil Procedure Code or the Criminal Procedure Code, no question shall, except inaccordance with the provisions of this

Act, be raised before any court or otherauthority on the proceedings, order or decision of, or a decree of compensationpassed and penalty imposed by, the Environment Court.

(2) A party aggrieved by a Judgment or a decree of compensationpassed or a penalty imposed by the Environment Court can file an appeal to theEnvironment Appeal Court established under section 12 within thirty days of thedate of passing the judgment, decree of compensation or penalty, or order ofdismissal of a civil suit or an order specified in sub-section (3).

(3) An appeal shall lie to the Environment Appeal Court against an order of interim or temporary injunction, an order to maintain status quo, an ordergranting or refusing bail, an order of framing charge or discharge, and an order oftaking cognizance of an offence or refusal thereof passed by an Environment Court;no other interim order shall be appealable nor shall the legality or propriety thereofshall be called in question before the Environment Appeal Court or any other court.

(3A) An appeal shall lie to the Environment Appeal Court against anorder of conviction and sentence or acquittal, an order granting or refusing bail, anorder of framing charge or discharge, and an order of taking cognizance of anoffence or refusal thereof, passed by a Special Magistrate Court; no other interimorder passed by such Magistrate shall be appealable nor shall the legality orpropriety thereof shall be called in question before the Environment Appeal Court or any other court.

(4) Notwithstanding the provisions of sub-section (1), a partyaggrieved by a judgment or decree passed by an Environment Court in a suit forcompensation shall not be entitled to file an the appeal against the said judgment ordecree without depositing half of the decreed amount with the court which passedthe decree.

12. Environment Appeal Court.-(1) For carrying out the purposes of this Act,the Government shall, by notification in the Official Gazette, establish 2one or morethan one Environment Appeal Court.

(2) An Environment Appeal Court shall be constituted with one judgeand, in consultation with the Supreme Court, the Government shall-

(a) appoint an officer of the judicial service of the rank ofDistrict Judge and such Judge shall dispose of cases onlyunder environmental law; and

(3) The seat of the Environment Appeal Court shall be in Dhaka or anyother place specified by the Government.

(4) For the purpose of disposal of appeals relating to offences, theEnvironment Appeal Court may exercise all the powers of a Sessions Court as anAppeal Court under the Criminal Procedure Code.

(5) For the purpose of disposal of an appeal relating to a suit forcompensation, the Environment Appeal Court may exercise all the powers of anappellate court under the Civil Procedure Code.

12A. Transfer of cases.- An Environment Appeal Court may, on an applicationor other information-

(a) transfer a pending case from one Environment Court to anothersuch court subordinate to it or to retransfer a case;

(b) transfer a pending case form the court of a Special Magistrate tothat of another Special Magistrate or to an Environment Courtsubordinate to it, or retransfer such a case.]

13. Pending cases.- A case under an environmental law pending in any courtimmediately before the commencement of this Act, shall be so continued anddisposed of in that court as if this Act has not been enacted.

13A. Jurisdiction of Environment Court over offences etc. committedearlier.- (1) If a case has not been instituted against an offence committed beforethe commencement of the Environment Court (Amendment) Act, 2002, the offencecan be taken cognizance of by an Environment Court or by a Special Magistrate, asthe case may be, on the basis of a written complaint or report of an Inspector or anyother person authorized in this behalf by the Director General , and the case can bedisposed of according to this Act.

(2) For the purposes of this section, a case instituted on complaint shallnot be dismissed under section 247 of the Criminal Procedure Code only on theground of absence of the complainant.

14. Power to make rules.-For carrying out the purposes of this Act, theGovernment may, by notification in the Official Gazette, make rules.[16]

---

[16] *The Environmental Court Act* 2000.

CHAPTER 5

RECOMMENDATION AND CONCLUSION

5.1 Recommendations

In recent times, many initiatives have been taken to reduce the waste problem and developing the waste management system in Dhaka, like community dustbins, collection points including transport and logistical support and separation zone but a long-term recommended method would comprise of: Initiate steps for scientific and organized waste management using GP principles. This includes putting in place the necessary measures to collect, transport, and dispose of or treat solid waste. Develop a new policy based on a renewed understanding of the environmental situation in the country. Enforce the existing waste legislation and promote education and awareness among the people toward solid-waste issues and adverse health impacts. Develop a common waste-management infrastructure. Introduce incentives and emphasize efforts that promote reuse and recycling. Seek funding from national and international bodies interested in managing solid waste and other environmental problems in Bangladesh. Institutional strengthening. Capacity building: Training to the Conservancy department personnel to manage scientifically the solid waste management issues. Exchange of information Public awareness program ¨ Dhaka North and South City Corporations have launched a new initiative titled "Urban Public and Environmental Health Development Project" to relieve the city people of the toxic smell from roadside garbage. The Asian Development Bank (ADB) funded project is being implemented by the Ministry of Local Government and Rural Development (LGRD). Authorities said the project, which has already been introduced at a number of wards in DCC south, would be completed in two to three years. DCC officials informed that under the project, a secondary transformation station (STS) would be built on a relatively high point at each ward. All the waste and garbage from the area would be kept in containers on the raised platforms, they said. The two city corporations have already selected and acquired suitable lands and the construction of the STSs have already started at several wards.DCC officials said the platform would be a 70 feet by

70 feet structure, raised several feet above the ground, so that rainwater could not wash away the dumped garbage. They also said the STS would have separate resting place and toilets for the cleaners. The new waste management project will give Dhaka a better look.

In Bangladesh we have some common dreams that are neat, clean and poverty free society, and waste recycle process can help to bring this dreams into reality. But government alone cannot bear the responsibility. We have to work together and share these responsibilities. The city corporations have started to organize their own waste collection services for keeping their localities clean. The city corporation starts their work on the basis of their communityarranged system. Wastages are being collected from households and carried to then ear by municipal roadside containers. The community-managed house-to-house waste collection service is gaining momentum in Dhaka City and gradually expanding into a major environmental movement. In Dhaka City, more than 170 communities of varying sizes (less than 50 to more than 300 households) have stared this participatory intervention. The system has already increased garbage collection coverage by 20 percent of the generated waste and created approximately 500 jobs and proven to be appropriate for addressing local problems(Mousum, 2007:94). We can save our environment and also be come finically benefited through concerted efforts. Waste recycle also reduces the greenhouse gas reduction. The recycle waste helps to decrease the energy need of new production and reduces emissions of carbon dioxides in the atmosphe

5.2 Conclusion

Last Thursday I went to City Corporation to take some information regarding waste management problem in Dhaka city. There we acquainted with that last Wednesday a meeting was held where Captain Rakib was termed as the departmental head of waste management. In that meeting SayeedKhokon also presented. The agenda of that meeting was to take new steps to remove dustbin from the open place which is used as walking place for general people. Those dustbins will be placed at conserve lane with cover so that the bad smell which flows from those dustbins could not disturb the passerby. Again they don't have use cloth to cover their nose to protect from the bad smell. All dustbins will be placed at lane of each residential area and the number of the those will must be huge so that people could get them available at any time when they feel necessity of those. Then they already placed mobile toilet here and there for passerby to use them at the time of their necessity. Those dustbins which are now placed at open place they will be removed from that place by using truck and those place will be made neat and clean. Because many dustbins are placed at open place which are used as walking street for people at regular basis. But by removing, those will be placed in the reserved territory with covered box. Every box will be placed at every nearest lane of every territory so that general could get them available at anytime .Those are the steps which are taken by the Dhaka City Corporation regarding waste management problem in Dhaka city.

Bibliography

Books

1. MD. JahidHossainDolon, *"International Enviromental law With Bangladesh Perspective"*, 3rd ed.(Dhaka: University Publications, 2014).
2. Philippe Sands, *"Principles of International Environmental Law"*, 2nd ed.(Cambridge : University Press, 2003).
3. Birnie.P And Boyle, *"International Law And Environment"*, 1sted.(Oxford: Clarendon Press, 1992).

Ordinance

1. Dhaka City Corporation Ordinance, 1983.
2. The Environmental Population Act, 2003.
3. The Bangladesh Environment Conservation Act, 1995.
4. The Environmental CourtAct, 2000.

Electronic Data

1. *Solid WasteManagement of Dhaka City*,[http://www.virtualbangladesh.com/the basics/cities/dhaka/, Last visited, 03 November, 2016].
2. Municipal_solid_waste_management_in_Dhaka_city_Bangladesh, [http://www.researchgate.net/publication/260054178, Last visited, 11th February,2016].
3. Waste Management Program, [http://bv-f.org/08.%20BV%20Final.-13.pdf, Last Visied, 12th November, 2015].
4. Environmental Pollution Of Bangladesh, [http://www.bangladeshenvironment.com index .php/polution-s/294-environmental-pollution-of-bangladesh-it s-effect-and-control, Last visited, 13th November, 2015].