4.7.1 Introduction

Pollution is the introduction of contaminants into the natural environment that causes adverse change. Pollution can take the form of chemical substances or energy, such as noise, heat or light. Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants. Mymensingh town and surrounding unions comprise of urbanite components and precede daily activities necessary to run livelihood of people. Hence, different types of pollutant has been creating disturbance to natural environment of this area.

4.7.2 Methodology

Water and soil quality has been assessed to determine pollution status. Sample of water has been collected from different water bodies as per type (pond, river and lake) and visual quality (Clean and dirty) of water bodies. Eight water bodies have been selected according to mentioned sampling technique. On the other side, sample of soil has been collected from different agriculture productive land of Mymensingh.

Both water and soil sample has been tested in lab of Bangladesh Agriculture University, Mymensingh under supervision of expert personnel.

For water quality test, existence of NH_3, NO_2, pH and Temperature of sample water have been assessed and for soil quality test, contamination of pH, Nitrogen (N), Phosphorus (P) and Potassium (K) have been assessed.

4.4.4.3 Result

Industrial and commercial activities, emission of substances from vehicles, waste disposal etc. are significant reason for getting the environment of that area being polluted day by day. Following results delineate the scenario of environmental situation of study Mymensingh town and surrounding unions.

Table 1 displays result of water quality test of different water body across Mymensingh. NH_3, NO_2, pH and Temperature of water contained by following pond, river and lake has been assessed to identify contamination of these components in water.

Table 1: Water Quality Result

SL.	Name	NH_3	NO_2	pH	Temperature
1	Pond 1 (Clean)	.198	.002	7.37	23.4
2	Pond 2 (Dirty)	2.9	.0055	7.07	23.5
3	River Brahmaputra (Dirty)	2.9	.001	7.54	23.5
4	River Brahmaputra (Clean)	.399	.001	7.82	23.5
5	BAU Lake 1	.120	.002	7.63	23.5
6	Charpara Lake	2.9	.0415	7.24	23.5
7	Commercial College Lake	2.9	.0343	6.07	23.5
8	Digharkanda Lake	1.431	.0050	6.95	23.5

Table 2 shows result of soil quality test of different location where agricultural activity is conducted. Presence of pH, Nitrogen (N), Phosphorus (P) and Potassium (K) in sample soil has been assessed as followed.

Table 2: Soil Quality Result

SL.	Location	pH	Total-N (%)	P (ppm)	K (ppm)
1	Sirta	6.51	0.140	18.93	52.47
2	Bypass Mor	6.54	0.274	9.39	60.54
3	Akua	6.29	0.184	16.20	62.56
4	Khagdohor	6.22	0.123	22.56	141.27

Table 2 shows result of soil quality test of different location where agricultural activity is conducted. Presence of pH, Nitrogen (N), Phosphorus (P) and Potassium (K) in sample soil has been assessed as followed.