

Report
on
Integrated Development of Hatirjheel Area including Begunbari Khal Project

Course No WFM 6306

Course Name Urban Water Management

Date of Submission

February 01, 2012

Submitted to

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1 Introduction

Hatirjheel and Begun Bari canal at one time were connected to Dhanmondi Lake. But a box culvert and box drainage line was placed at the Dhanmondi Lake and Begun Bari intersection which did not function in later time. With the objective of protecting and restoring the environment which has been destroyed and increasing the drainage retention capacity of Dhaka city the “Integrated Development of Hatirjheel Area including Begunbari Khal” project has been initiated. This study is aimed at investigating the drainage function and water quality management status of the Hatirjheel Integrated System.

2 Objective

The objectives of this study are

- To investigate the drainage/detention function of Hatirjheel Integrated System
- To examine the present status and future plan for water quality management

3 Methodology

Two field visits were conducted at the project site. At the first visit, a Key Informant Interview (KII) with Major Ferdous-ur-Rahman Khan, Captain – 3, Construction Company, Corps of Engineers of Bangladesh Army was conducted. A reconnaissance survey was then conducted stretched from behind Sonargaon Hotel to Tongi diversion. The next visit was started from Rampura regulator. Several KIIs and informal interviews were performed on that day. Information was also collected from secondary literature.

4 Results and Discussions

4.1 Drainage/detention function

Hatirjheel and the Begunbari khal perform an important function in draining stormwater from approximately one-third area of Dhaka city. Hatirjheel is the largest stormwater detention basin in the city which is hydraulically linked with the Gulshan and Banani lakes. Banani lake is linked with Hatirjheel through a canal which also receives stormwater from the Mohakhali box culvert. The outfall of this combined system covering the DWASA Drainage Zones F and G (covering an area of 27.468 km²) is located at Rampura where a regulator was constructed after the flood in 1988. The current practice of DWASA for stormwater management in Zones F and G is to allow stormwater detention in Hatirjheel and gravity drainage through Rampura until the external river water level

rises above +5.0 m PWD. The regulator gates are kept closed during the period the external water level is above +5.0 m PWD, and approximately 50 pumps (30 nos of twenty five-cusec and 20 nos of five-cusec¹) are used to drain out runoff generated by internal rainfall.

The stormwater detention capacity of the Hatirjheel system has been reducing in the recent years because of encroachment and land development in the detention areas. Although construction of the proposed walkway and roadway will reduce the available detention capacity, the local people hoped that further reduction in the present detention capacity will be avoided. This would entail fast moving transport, preventing the pedestrians and visitors from free movement.

4.2 Present status and future plan for water quality management

The Hatirjheel-Gulshan lake-Banani lake combined system is also proposed to serve as an integrated lake for possible future recreational and navigational purposes. The management of water quality is very important in this respect. According to the local people, before initiation of the project, it was unbearable to stay around the area due to odor and nuisance. Open dumping of solid waste in the area was a common practice. Now they hope upon completion of the project, the place will be livable. It is planned that the domestic wastewater will be diverted by Combined Sewer Overflow (CSO) structures and bypass sewers.

5 Conclusion

While the city is becoming more and more suffocating, while open spaces are shrinking rapidly, Hatirjheel comes as a breath of fresh air. It is the last hope of the city dwellers for some respite and recreation. It is being hailed as the breathing space of the city. However, proper implementation and subsequent O & M need to consider some critical issues.

RAJUK has been given the responsibility of land acquisition, compensation, land excavation, site protection, waste disposal, etc. LGED has been given responsibility for construction of a two-lane road by the lake, a two metre wide footpath, a 2.5 metre wide walkway, bridge, and overpass at Pathapath crossing and landscaping. DWASA was put in charge of building up the storm water and sanitary drainage system and water supply network. Bangladesh Army has been given the responsibility of implementing the project

¹ As reported by Mr. Nuruzzaman, Security Guard, Rampura Pumping Station

as the Special Works Organization. It has been said that if the army had not been given this responsibility, it would have been difficult to actually implement the project, perhaps impossible. The valid question is who will be responsible to maintain the system in the future. Appropriate institutional mechanism of operating and maintaining the whole system is to be ensured for the sustenance of the project's outcome.