IMPACT OF INDUSTRIES EFFLUENTS TO RIVER TURAG: EFFECT TO CLIMATE CHANGE

Md. Monirul Islam[1], *Raihan Ahmed*[1], *Rifat Sumona Mollik*[1], *Nahidul Islam*[1] *and Sardar Md. Shaheen*[2]

[1]International University of Business Agriculture and Technology, 4 Embankment Dr Road, Dhaka, Bangladesh

[2]Simec Institute of Technology, Shah Makhdum Avenue, Uttara, Dhaka, Bangladesh

Many industries have been set up in and around the Dhaka city and in the bank of river Turag during the last decade, and the number of the new industries is continually increasing. The major sources that cause pollution to Turag river water are various consumer goods industries, garments industries, pharmaceuticals industries, dyeing industries, different manufacturing industries, textile, paint, chemical factories, ready mix concrete factory, etc. Many of the industries do not follow the environmental law. They directly diffuse the effluent to the river Turag without treatment. Also the chemicals present in surface runoff from agricultural land e.g. pesticides and nutrients, and contaminants arising from diffuse sources in surface runoff and storm overflows are fallen into this river and contaminates the river water. This study includes a brief description of the present state of the Turag river, the sources of the Turag river pollution, the causes of the pollution, the impacts of the pollution on the environment, ecosystem as well as the socio-economic impacts. Samples were collected from the different outfalls of industries where they released the almost untreated effluents to the river and also from different places of main stream of the river and analyzed the water samples in the laboratory. Biological oxygen demand (BOD) and chemical oxygen demand (COD) values were found higher than standard values whereas dissolved oxygen (DO) of the river was found to be very less than the standard value. The maximum average TDS, conductivity and turbidity was recorded during the summer season as 451.75 ± 17.50 mg/l, 785.25 ± 20.50 µS/cm and 76.53 ± 6.5 NTU, respectively. It can be concluded from the results found from both BOD and COD values along with the different heterotrophic and enteric bacteria that the river Turag was polluted with organic, chemical and bacterial pollutants.

PRESENTER BIO: Dr. Md. Monirul Islam is a Professor and Dean of College of Engineering and Technology of International University of Business Agriculture and Technology. He has nineteen years teaching experience with twenty six years research experience in the diverse fields of water resources engineering and disaster management