

Sustainable Development of Water Supply, Sanitation and Waste Management: A Challenge to Dhaka Urban Slum Dwellers in Bangladesh

AYSHA AKTER¹ AND ROWSHAN MAMTAZ²

¹ Master Student, Water Engineering and Management, School of Civil Engineering, AIT, Thailand, E-mail: aysha_akter@yahoo.com

² Associate Professor, Department of Civil Engineering, BUET, Dhaka-1000, Bangladesh.

ABSTRACT

The new ethic of ‘Sustainable Development’ in basic urban facility like water supply, sanitation and proper drainage system for waste disposal is now being supported by a number of technologies to achieve it in reality. Most of the developing countries’ urban slums receive few or no facility. Albeit there are several cost-effective basic infrastructures/services from the slum improvement providers (both public and private) but the poor situation of urban facilities still prevails in these settlements. That is because after providing these infrastructures/services, within a very short time most are either fully ruined or exist in a very shocking condition. The problem is particularly acute in the capital of Bangladesh - Dhaka, where about 33 percent out of total Dhaka’s population live in slum/squatter settlements within abject physical and environmental conditions like: out of total slum dwellers about 20 percent have land-access, 30 percent’s houses blessed of piped water supply, 20 percent have sanitation access and only 10 percent receives proper waste management facilities. There are lots of community based approaches which are positively influencing

the long- run services but due to slum's legality these facilities cover only one/two sector without any incorporation. Against this backdrop, an urgent 'Sustainable Development' is required to provide slum dwellers' elementary needs through an integration of both technical and managerial. This paper focused narrow down at the existing facilities in context of non-slum area and identifies the responsible factors to achieve sustainability. The main discussion is devoted for improved Dhaka slum's basic services through boost up the existing participatory approach to cope the challenges behind sustainability and finally come up with possible solution as an integrated 'Rainwater Harvesting' and 'Bio-Gas Plant' in corporation with the 'Community Construction Contracts'. This paper concludes the proposed community-based cost-effective infrastructure can be accomplished the requirements of slums 'Sustainable Development'.

Key Words: Sustainable development; integrating facility; Dhaka slums; Basic facilities.