7th International Water Resources Management Conference of ICWRS,
18–20 May 2016, Bochum, Germany, IWRM2016-80

Water resources of the mega city of Lagos, Nigeria: availability, anthropogenic impacts, and sustainable management.

M.S. Shiru [1*], M.A. Jato [1], D.M. Musa [1] and P.T. Apeverga [1]

[1] Department of Environmental Sciences, Federal University Dutse, Dutse, Nigeria.

Corresponding author: shiru.sanusi@gmail.com

Abstract

The water resources and associated environmental issues of the mega city of Lagos have been assessed. Physical observation around the city and gathered information has shown the water issues of the city not to be limited to that of availability and quality but also to distribution. After the building of the first water works in Iju in the year 1910 with a capacity of 2.42 mgd, several expansion of the plant and building of several other mini water works which today combined produces over 151.1 mgd have not been able to solve the Lagos water problems. This is as a result of rapid population increase which currently keeps the Lagos population at 16,100,000 as against that of 1,900,000 in 1975; and continuous industrial development. The exceeding of demand of water by supply and non coverage of distribution pipes has encouraged sinking of individual boreholes which has led to over exploitation of groundwater resulting in salt water intrusion in some areas and subsidence in others. The quality of water has also been compromised in many places due to improper industrial discharge of wastes, dumping of refuse in water ways, improper sewage disposal among others. Past administrations have made tremendous efforts in improving the water resource and the environment of Lagos. This effort however seems futile due to continuous influx of people into the city creating more slums and less awareness about the need for protection of water resource and the environment. In attaining sustainable water resource management and environment within the city, there is the need for stricter laws most especially on industries, better waste management methods, and orientation of the public.

Key words: Lagos, water resource, pollution, population, groundwater.