

Urban water challenges - no life without water

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Abstract

Water is the essential need of life and there should be ample water to serve the inhabitants of the earth. There is growing depletion in the amount of water specifically in the urban areas. In Pakistan, there is rapid migration of population from rural areas to urban areas. This creates great strain on already available limited water and sanitation facilities. Groundwater is one of the primary source for drinking and other domestic uses. According to WaterAid, 16 million people in Pakistan do not have access to drinking water while 68 million people do not have access to adequate sanitation in Pakistan. Over 22,000 children under the age of five die every year from diarrhoea caused by polluted water and poor sanitation in Pakistan. According to World Health Organization (2006), only 59 % of the world's population has access to adequate sanitation systems. People in urban areas are facing serious water shortage which make their life miserable. This situation is mainly caused by human induced and natural factors generating the water challenges in the urban areas. The human induced water challenges include population, urbanization (unplanned), industrialization, solid waste quantity (garbage dumps, toxic waste and dumping of hazardous substances), liquid waste management (chemicals storage), poor infrastructure, inadequate sanitation system, contamination and economic challenges. In addition, water quality testing is not carried out on regular basis and there is lack of hygiene education among the people utilizing the water resources. The natural factors are climate (lack of rain), lack of vegetation, global warming and water discharge. Urban areas have potential to pollute water in many ways like run-off from streets which carries pollutants such as gas, oil, rubber, heavy metals, pet waste, fertilizers, pesticides, salt, treated human waste from sewage treatment plants and other contaminants from automobile. The human activities are also accelerating the natural water challenges, however, they can minimize the problems caused by humans directly or indirectly. The people needs to be educated about the adequate water utilization and its effects e.g., how and where to dispose the waste etc. The rusted sanitation system pipelines causing various diseases and they should be replaced before major destruction while certain leaked pipelines should be repaired without wasting any time. There should be proper utilization of rain water, campaigning for sanitation rights, celebration of international days and highlighting the issues on media. The government environment protection agencies and other concerned organizations should take necessary measures to minimize and ultimately overcome the risks involved. This will lead to provide sufficient and clean water to the living beings.