

# Public-Private Partnership: Ghanaian Perspective of Urban Water Supply

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## Abstract

In Ghana, tariff of utilities including water is put below cost recovery levels such that government is unable to cope with the challenges in water supply. As such, the government resorts to private partnership to fund the gaps in the urban water supply in the country. The study adopted an integrative multi-stage critical review of relevant literature on public-private partnership in urban water supply. As such articles published between 2006 and 2017 were selected by specific inclusion criteria. Relevant articles on the topic were identified through references and citations. The paper examines the status and trend of water supply, reforms and management of urban water supply in Ghana. The study found problems like poor water supply system, inadequate human and economic resources as well as poor resource allocations and urban water management.

**Keywords:** Conditionality; Exploitation; Liberalization; Privatization; Urban.

## 1. Introduction

The world's population growth has greater physical and socio-economic impact which is a great challenge for environmental protection as well as supply and management of water resources. These urbanized communities in developing countries may lack the ability to expand or provide basic services including supply of water. Such situations might pose a keen competition among water resource suppliers and possibility of inadequate protection of water bodies from contamination with domestic and industrial wastes. Studies revealed a decline in the supply of drinking water by two percentage points or more in urban areas of about 10 percent of countries across the globe [1-2]. While the global demand for water has tripled, supply is declining which put a lot of people in water-stressed or water-scarce situation and expected to grow further due to increase in population [3-4]. The water water-stressed is related to the number of people that have to share each unit of water resources. The various demand of water is for industrial use, urban water supply and agriculture. Therefore, sustainable consumption and production are needed to reduce the burden on freshwater and to complement those strategies that operate at the water resource level. The concerns about supply and increase in demand of water are problems for water management in Ghana. The state needs to invest in infrastructure to satisfy numbers of Ghanaians who do not have access to portable water.

The rapid population growth and over-exploitation of raw water resources put the urban population under water-scarce situation. The depletion of resources and the deterioration of general quality make it even more difficult to supply water to urban areas. It is reported that about one fifth of the world's population live where safe drinking water is physically unavailable [5-7]. For instance, most developing countries do not only face scarcity of water but they don't have safe drinking water [2],[8-11]. The general contributing factors to water scarcity in these areas include population

growth, usage for agricultural purpose, rising demand due to increasing incomes, rapid urbanization, pollution from agriculture, human and industrial waste as well as poor management of natural resources. Besides, the issues of pollution of water resources are due to people encroaching upon riverbanks which disrupt the water cycle in most urban areas. The access to safe and affordable water for populations in all urban areas in developing countries is featured in the Millennium Development Goals [11-12]. As a result, many developing countries have initiated reforms to provide answers to hurdles blocking access to water and other services to the urban population.

The first world water forum held in Marrakech, Morocco, signaled a growing global concern about the challenges of water resources and supply. Subsequently, international water specialists, politicians, officials and journalists from across the world attended the Second World Water Forum in The Hague, the Netherlands in 2000 to trumpet the serious nature of supply of water resources. Another international water meeting, the Third World Water Forum held in Kyoto, Osaka and Shiga, Japan, in 2003 which about 182 countries attended during which 100 new commitments were made on water, particularly how to supply the entire world and especially developing world safe water [2],[13]. The concern was equitable distribution of water across the population considering the current global water demand of over 4500 cubic kilometers so the challenge was not about availability of adequate water. The distribution of water across the globe is not equal, for instance, the per capita water available to Latin America is higher while Africa, Asia and Europe have far less water per capita. The availability of freshwater is also poorly distributed as there are variations across regions [11],[14-15]. While some countries have about 120,000 cubic meters per capita per year, Kenya has 600 and Jordan 300 cubic meters per capita a year of renewable water resources. This means countries with less than 1000 cubic meter per capita a year are considered water scarce while those with freshwater resources ranging between 1000 and 1600 cubic meters per capita a year are