### Chapter 8

# Water and Sanitation: A Case Study for Policy Implication to Reaching Global Development Goals in Developing Nations

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#### **ABSTRACT**

Globally, the provision of clean and safe drinking water to most populations has been an elusive development goal though some of us take the availability of this vital resource for granted. Millennium Development Goals (MDG) target 7.C is the target, which addresses sustainability and access to water, among other developmental goals. As the preceding targets appear elusive, Kenya is now refocussing on Vision 2030. It is important to identify reasons for this to avoid a repetition during the next fifteen years. In order to discover the factors hampering these achievements, all possible contributing factors need to be investigated and the focus of this chapter is the Kenya national legislation and policies. Based on the findings, we recommend a reassessment of policies on groundwater management, reconsideration of ideal universal goals and political commitment by state and organisational accountability to identify better strategies for achieving internationally identified standards and goals.

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#### INTRODUCTION

Water and Sanitation is one of the primary drivers of public health. I often refer to it as "Health 101", which means that once we can secure access to clean water and to adequate sanitation facilities for all people, irrespective of the difference in their living conditions, a huge battle against all kinds of diseases will be won. LEE Jong-Wook, 2003-2006 WHO Director General (WHO, 2004).

The provision of clean drinking water and adequate sanitation plays a major role in improving the health outcome of individuals and communities as an essential environmental health factor. Water and sanitation quality issues emanates from institutional, structural and technical deficiencies. The outcomes affect other societal issues that will impact negatively on the individual and the wellbeing of the communities clinically, socially and economically.

Global efforts and campaigns in eradicating or interrupting the cycles of disease cascades resulting from consumption of polluted water are not new. Public interest and awareness of environmental issues in general has been gradually gaining momentum since it sparked off in the United States as early as the 1960s and became an enduring concern in the 1980s (George, 1988). Environmental issue returned to the international policy arena in 1970s as it was discussed in the 1977 World Water Conference in Mar del Plata, Argentina and the International Conference on Primary Health Care, held in Alma-Ata, Kazakhstan (former Soviet Union), in 1978 (WHO, 2011a). In November 1980, the United Nations (UN) general assembly proclaimed the period 1981-1990 the International Drinking Water Supply and Sanitation Decade (United Nations, 1985). It was anticipated that guaranteeing 'reasonable access to safe water' to all inhabitants of the world by 1990 would be followed by significant improvements in health and social conditions (Poppel & Heijden, 1997). But these goals were not achieved (Eric Mintz, et al., 2001). In 1992 the UN designated March 22 as the World Water Day, an international day of observance and action to draw attention to the plight of the more than one billion people worldwide that lack access to clean, safe drinking water (WHO, 2002).

All these conferences bore the hallmark of the post-conference targets such as the water supply and sanitation decade of 1981–1990, the Millennium Development Goals (MDGs) adopted by the General Assembly of the UN in 2000, the Johannesburg World Summit for Sustainable Development in 2002, and 2005 to 2015 as the International Decade for Action, "Water for Life" (WHO, 2011a).

Globally, it is estimated that groundwater constitutes 97% of all fresh water available for human use (Lawrence, et al., 2001). Groundwater resource utilisation has traditionally been second to surface water, but this is quickly changing as groundwater is increasingly supplanting surface water for all types of use in many parts of the world (Giordano & Villholth, 2007 P.393). However, its sustainability and reliability is threatened due to intensive use and increased pressure resulting in depletion of aquifers and increased contamination (Giordano & Villholth, 2007 P.394). Groundwater pollution and management is a major subject with many facets and influencing factors naturally as succinctly described by Edmunds and Smedley (1996):

The natural geological and geochemical environment, in addition to providing beneficial mineral content and bioessential elements to groundwaters (sic), may also give rise to undesirable or toxic properties through a deficiency or an excess of various elements.

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