

Unsafe water

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Running Head: UNSAFE WATER Topic: Unsafe Water Lecturer: Presentation: Introduction On the world water day the UN secretary Ban indicated that “ more people died from unsafe water than all forms of violence including war” (UN News Centre, 2011). Lack of access to safe water, poor sanitation and hygiene is a public health issue that if not dealt with, it can cause diseases and deaths especially to young children in developing countries. According to UNICEF, without safe water, sanitation and hygiene, sustainable development cannot be achieved. The problem is so persistent and is a public health issue allover the world hence the UN millennium development goal for water and sanitation which is “ to halve by 2015, the proportion of people without sustainable access to safe water and basic sanitation” (UNICEF, 2011). Water contamination may result in diseases such as; diarrhoea, cholera, typhoid, malaria, trachoma, hookworms, hepatitis A among others. It is therefore important to look into the scope of the problem, the various measures put by government to ensure access to safe drinking water, the funding towards such initiatives and the effectiveness of such policies in ensuring the millennium development goal is achieved. Scope of the Problem The UN environmental programme (UNEP) shows that 2million tons of sewerage, industrial and agricultural waste are poured everyday into the water and that one child under 5 years dies every 20 seconds from water-related diseases (UN News Centre, 2011). According to Pruss-Ustun et al (2004); Elimelech (2006), unsafe water, sanitation and hygiene accounts for 1. 73 million deaths a year worldwide mainly through infectious diarrhoea. The problem is more prevalent in developing countries accounting for 85-90 % of diseases compared to 60% in developed countries and mostly affects children. Elimelech (2006 p. 26) notes that 1. 1 billion people which is <https://assignbuster.com/unsafe-water/>

fifth of the world's population lack access to safe water, 2.4 billion lack proper sanitation and that most of the deaths (90%) are children under the age of 5 in developing countries. This defeats the UN millennium goal of reducing child mortality rate by two thirds by 2015. The diseases are acquired through ingestion of unsafe water, contact with contaminated water, poor hygiene, poor domestic and agricultural practices as well as poorly managed water systems (EPA, 2011). A lot of chemicals from industries and agriculture find their way into water bodies or seep into the soil and contaminate underground water making it unsafe for drinking. However, some contaminants like arsenic are natural as they are from natural rocks through natural processes and the government needs to ensure that people do not consume such chemicals in large quantities as they can result to cancer and kidney failure among other diseases. Lack of access to water leads to poor personal hygiene which results in diseases. For example, people do not wash hands properly if they do not have adequate water and this can result in diseases. Poor hygiene practices such as human waste disposal also leads to contamination of water. The human faeces find their way into the water thus contaminating it. Unsafe water cannot thus be considered in isolation as it goes hand in hand with poor sanitation and poor hygiene practices. According to Anderson and Bohan (2001), water is contaminated either at the source which could be a lake, river or a well or during distribution especially through contaminated pipes. Unhygienic water storage tanks at home also leads to water contamination making it unsafe for human use. Broken pipes could lead to leakage of chemicals into the water during distribution leading to contamination. Corrosive pipes are a source of lead deposits in the water making it unsafe for drinking. Lead

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arises from corrosion of lead pipes, copper pipes with solder as a result of water staying for long in pipes. Consumption of lead can cause damage to the brain, kidney, and red blood cells (EPA, 2011). Poor irrigation practices make chemicals to find their way into water bodies thus polluting the water source. It is therefore imperative to observe good hygiene practices and have proper sanitation in order to reduce water contamination. Actions Recommended to Address Unsafe Water Crisis The US government through the environmental protection agency (EPA) has undertaken various measures to ensure safe drinking water for the population. The Safe Drinking Water Act (SDWA) amended in 2006 acts as the basis on which water safety policies are formulated. According to Elimelech (2006 p. 29), water scarcity and quality problems involve complex technical, societal, cultural, economical and political aspects hence needs careful consideration. The SDWA stipulates the level of lead in water as 15ppb. The government through utilities department is thus to ensure tap water does not exceed this level by usage of lead free pipes and nonuse of solder and flux in plumbing. It also advises residents to flush pipes before drinking the water to remove any lead formed due to storage of water in pipes for long (EPA, 2011). Treatment of water at point -of- use and point-of-entry is essential to remove water contaminants. This is mostly done by chlorination, solar disinfection, filtration and distillation as well as boiling water to remove biological and chemical pollutants. Proper management of human excreta and hygiene promotion goes a long way in reducing water contamination. This is done through refuse collection, treatment and disposal of waste, offering hand-washing points, hygiene and health education (Hunt, 2011). EPA provides guidelines on level of contaminants in water; water is monitored for 90

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contaminants. It also develops a list every 5 years of unregulated contaminants that can pose health risks as well as performing microbial water testing. For example, the standard for arsenic in water in 2006 was 10ppb (EPA, 2011). Each state is supposed to set its own drinking water standards in line with SDWA. EPA also provides consumer confidence reports to let consumers aware of safety of drinking water. US also has primary drinking water regulations to limit level of contaminants and also secondary drinking water regulations to address cosmetic and aesthetic water attributes such as tooth discoloration and taste. Resources The US government has committed a lot of funds in its budget to ensure availability of safe drinking water and eliminate water contaminants. The public water system supervision program under SWDA receives funds to ensure compliance with national primary drinking water regulations. IN FY 2010, the congress committed \$105, 700, 000 for this purpose. The states and territories were allocated \$ 98, 896, 900 while the tribal lands were allocated \$ 6, 803, 100. The underground injection control (UIC) program also receives approximately \$11 million per year through primary states, territories and EPA regions which enforce minimum federal UIC (EPA, 2011). The clean water revolving fund and drinking water state revolving funds are given to fund water quality protection projects. They are used for installing, upgrading and replacing infrastructure. Most funds are allocated to small and disadvantaged communities to ensure access to drinking water for all. In FY 2010, \$1, 387, 000, 000 was allocated for this purpose. The policy is to ensure access to safe drinking water for the population in line with the UN millennium development goals and also to eliminate waterborne diseases as well as reduce child mortality rates. The policy has been effective in ensuring

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reduction of contaminants in water hence reduction of water borne diseases such as cholera, diarrhoea, trachoma among others. The revolving funds given to communities to ensure safe drinking water have been effective. Most communities and groups use the funds to replace water infrastructure and eliminate water contaminants hence providing safe drinking water. Improvements in sanitary facilities and hygiene are also evident. References

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