

**WATER SANITATION AND
HEALTH IN ARID AND SEMI-
ARID AREAS**

BY

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WATER SANITATION AND HEALTH IN ARID AND SEMI-ARID REGIONS

Water is an important resource to humankind, animal kind and plants. As a natural resource, water is important therefore to all organisms in the environment. To be used in any way for domestic, it must be clean or treated for good health. Poor or lack of proper sanitation facilities and poor hygienic practices, will remain major obstacles for achieving better health standards.

Historical introduction of water

- Water is important to every living organism that is water is referred to 'water is life'. water is significant to all organisms in the environment. water is found in the hydrosphere-which refers to together in all its forms all water on the earth's surface and earth[butz,2004].
- According to Butz [2004] all water on the earth can be divided into two kinds or categories as; [i] Sea water [salt water] - which tastes salty because it contains sodium chloride or table salt, [ii] Freshwater-is what human beings require drinking and makes up 3 percent of all the water found on the earth and 97 percent is seawater. The earth's freshwater supply is found in three major sources or places: glaciers-which holds 2 percent of all the world's water and are the largest storehouse of freshwater on the earth;

State of water availability in Kenya

- Kenya is classified as a chronically water scarce country due to limited availability of natural fresh water, which currently stands at 647 million cubic per capita against the United Nations' acceptable level of 1000 million cubic per capita. Furthermore, the little water resources available is equally diminishing at an alarming rate. Without adequate measures to protect and conserve the precious resource, it is projected to fall further to about 245 million cubic per capita by 2025 [world vision bulletin, 2012]

Statement of the problem

- A recent survey conducted by World vision established that most rural communities in Kenya identify access to safe water as the main need affecting them. Other agencies which indicates that 60% of population do not have access to safe drinking water, while 49% lack basic sanitation facilities (World Vision Bullitin,2012). Poor sanitation facilities due to lack of clean water, lead to diseases like diarrhea, dysentery and cholera.
- Inadequate access to safe drinking water, poor or lack of proper sanitation facilities and poor hygienic practices would remain a major obstacle to obtaining better health in ASALS.
- [NGOs] works in partnership with like-minded agencies and communities, particularly in rural areas of ASALS to promote conservation and improve sustainable access to safe drinking water, improved sanitation and good hygiene. Rural communities waste a lot of time of the day collecting water from long distance sources. Water problem is a challenge which affects the social wellbeing of children by compromising their health and education in Arid and Semi-Arid areas.

Objective of the study

- To study the real and better strategies to improve health and wellbeing of the Arid and Semi-Arid (ASALS) and all communities in Kenya by empowering them to embrace a culture of safe sanitation and hygiene when managing clean water supplies and as a consequence to improve health standards

Methodology

- Analytical- survey method of empirical data available in journals by various government and Non-government organizations (NGOs).

Key findings

- Many international agencies working in Kenya strives to establish a continuous supply access to safe, improved sanitation and good hygiene in rural areas of ASALS. The Water and Sanitation[WATSAN]programme, established by Kenya Red Cross, strives to enable communities have improved access to safe and affordable water and sanitation.
- Effective water supply and sanitation projects depend not only on the choice of technology, but also on strategic partnerships, community involvement sensitivity to cultural norms, different needs in the community based approaches in financing and maintenance/sustenance of water and sanitation systems[Kenya red cross bulliten:cooperation agreement strategy,2008].

Key findings cont...

- ASALS[Mandera,Wajir,Isiolo,Moyale,Marsabit,Samburu,Makueni,Kitui,Mwingi,Kajiado,Tana River, Lamu and Kilifi]it uses the strategy of rehabilitation of non-functional water systems, by:
 - [i] Identifying and mapping existing non functional systems-so that can be revived into use.
 - [ii]Supporting and undertake repair works of existing, but non-functional water systems.
- The second objective is to save and improve the lives of disaster affected vulnerable populations with emergency water and sanitation facilities whenever and whatever disasters occur in Kenya. It uses the strategy of constructing new water systems by;
 - [i] Conduct baseline surveys to establish perceptions and needs.
 - [ii] Industry locations/branches with needs for new water systems.
 - [iii] Conduct community consultation and sensitization meetings
 - [iv] Develop memorandum of understanding [MOUs] with the communities in the affected areas.
 - [v] Facilitate construction of new water systems in the rural areas in the ASALS.

Key findings cont...

- World vision also provides technical expertise and financial support to resource poor communities to develop and maintain appropriate water, sanitation and hygiene [WASH infrastructure. Among initiatives supported by world vision, includes sinking and equipping of boreholes, protecting wells and springs and promoting appropriate rainwater harvesting technologies. Itit advocates for construction and use of ventilated improved pit[VIP] latrines in every household,scholls and other public places to dispose off human waste and avoid contamination of food and water sources. The communities in ASALS are therefore, encouraged to embrace a culture of washing hands with soap and water, particularly during critical moments as; after visiting a toilet, changing a baby nappy and before handling food.
- Also world vision goes a milestone of progagatry local expertise by training local artisans to acquire necessary skills to repair water systems, construct proper pit latrines and other solid waste disposal facilities
- Kenya Integrated Water sanitation and Hygiene Initiative”[KIWI] to improve access water and promote proper sanitation and hygiene targeting to reach 700,000 people in Kitui,Mwingi,Malindi,Kisumu,Transmara,West pokot,Turkana,Baringo,Matete,Bamba,Nakuru and Kajiado counties.
- The projects are located in the Arid and Semi-Arid lands [ASALS] where in some cases, less than ten percent of the populations have access to safe drinking water

Recommendations

- It is recommended that polluted water should be treated using different methods.
- Local management is important to sustainable water access in arid and semi arid lands.
- Children in ASALS should be taught and sensitized to adopt simple technologies to deliver potable water.
- Solar system of energy, is readily available in ASALS and operating and maintenance costs is low, it the most appropriate form of energy for pumping water from boreholes located in remote areas.
- Women should take positive steps in promoting sanitation and hygiene practices.
- People should be trained in making soap to foster total sanitation, community health and environmental waste management

Recommendation

- There should be a presence of a latrine hand washing kit with soap, availability of rubbish pit, a dish rack and general cleanliness of the homestead and in schools.
- The problem of dental fluorosis should be corrected or treated by de-fluoridation unit .
- NGOs should define health and care priorities and work closely with health partners in ASALS.
- Capacity building through health workers,volunteers and resource persons to enhance water sanitation sustainability.
- Construction of new water systems to enable the community have continuous water supply in near distances.
- The recent discovery of fresh water in Turkana,should be exploited to increase the supply.