

## Climate: Water Security and Climate Change

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### Introduction

Water security entails having enough water in the reservoirs and rainfall, plus lakes and rivers. When this is in abundance, adverse effects of climate change such as drought and famine are mitigated. To add onto that all forms of irrigation ensure limited negative effects of climate change and vice versa. Further still when water is abundant in the ecosystem the vegetative cover remains intact much as water remains in the hydrological cycle and this prevents climate change [1,2].

### People: Water, Sanitation and Health

To sum up my comment, on the above theme, I will quote Dr. LEE Jong-Wook, Director General, World Health Organization 2004, who once stated Water and Sanitation is one of the primary drivers to 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 the people, irrespective of difference in their living conditions, a huge battle against all diseases will be won" [3,4]

Clean water drives away diseases such as Bilharzia (Snail fever), Cholera, Typhoid, Dysentery, UTIs, Kidney stones, Constipation, Dehydration owing to Diarrhea etc. nearly 800 million people lack access to clean water and 2.5 billion lack accesses to modern sanitation facilities

### Development: Water and Sustainable Development

Water is vital for sustainable development. This is when it is used for irrigation, running industries, cooling systems, enhancing a clean health system which minimizes disease out breaks [5-7].

When water is present drought and famine which often lead to poverty are done away with. This ensures sustainable development.

### Urban: Integrated Urban Water and Waste Management

When there is an integrated water system there is ensured functioning of the waste system. Effluents are properly disposed of and this brings about ensued public health. Integrated Urban water according to Authors of a book entitled "Integrated urban water management: Humid Tropics" entails managing fresh water, storm water and waste water as components of a basin wide management plan. This builds on the existing water supply and sanitation with in an urban settlement by incorporating urban water management of the entire water source [8].

### Ecosystems: Water Quality and the Subsistence and Bio diversity of Ecosystems

When a community has access to safe water and sanitation benefits are wide spread. However, when it is the reverse, people die of water borne diseases hence affecting the subsistence and diversity of ecosystems.

Clean sources of water are vital for the subsistence and bio diversity of ecosystems should they end up not being polluted this is because they are able to thrive [9].

Clean sources of accessible water improve health and enrollment particularly with girls. This improves productivity within the community.

### Finance: Finance for Water Security

Globally, the global risks report 2016 released by World economic forum, expounds on water crisis at the top of global risks for the coming decade. The latest CDP survey shows two thirds of the responding companies report exposure to water risk, with reported financial impacts in 2015 totaling more than U\$2.5 billion. Water insecurity due to resource scarcity and degraded insufficient infrastructure and poor management affect people, economic activities and the environment [10].

The European Investment Bank has been one of the largest investors to the global water sector to date with more than Euros 60 billion of loans and equity supporting over 1300 water projects worldwide. In the last five years (EIB) has signed loans for EUR 16.9billion and supported investment of more than EUR 50 billion.

Until recently, financing, was not a priority for most water professionals and officials. It was rare to consider Finance for water. The Global Water Partnership (GWP) message has been clear. Finance and good water governance are inextricably linked. Things have changed Finance is now essential. Many publications, conferences, address water financing. National integrated water resource and water efficiency plans must be part of national development plans in order to access government and donor finance.

It is my hope that the conference will address all the pertinent issues and are put into practice.

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