

Potable Water Quality Stress in Sri Lanka

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It has only been during the last 150 years or so of man's tenure on this planet that he has attained both the numbers and the ability to seriously impinge on the natural "metabolism" of the earth. We in short have become a geologic process! According to UN census, about 884 million people do not have access to safe water sources. The UN Sustainable Development Goal 6 has as one of its targets, "By 2030, achieve universal and equitable access to safe and affordable water for all". Sri Lanka with a population of over 21 million is not a water scarce nation. According to census data 40% of the Sri Lankan population has organized water supply facilities and 59.4% depends on other sources such as wells, tube wells, streams and rivers reservoirs, rain water etc. including 10% on unprotected sources. Sri Lankan Government targets to provide safe drinking water supply for all by 2025 with 60% piped born water supply coverage by 2020 through the national authority to provide drinking water, National Water Supply & Drainage Board (NWSDB). This presentation aims to report on the degree of contamination of different water bodies used for human consumption.

Rainwater Quality: Rainwater is the primary recharging agent of different compartments of the hydro-geological cycle. The chemical quality of rainwater therefore has a profound impact on the water quality of the other hydro-geologic compartments. Research findings showed scattered acid rains in Central Highlands where pollutants have been deposited owing to peculiar wind patterns and regional topography. In addition, occasional acid rains have been reported in the dry zone during North East monsoons possible due to the transport of acid precursors generated from India.

Selected River Water Quality: Research into surface water has identified variations in water quality that are determined by the degree to which the surface water is affected by anthropogenic activities. Most of the major water parameters in Mahaweli River do not exceed WHO drinking water limits. Of