

Necessitates the indigenous water governance towards achieving SDG 6 under climate change in Sri Lanka

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Sri Lanka has moderate water stress (on a scale of 5), with sector wise scores for agriculture (3.10), domestic (2.28) and industry (2.65). The expected climate change scenarios (1.2-1.6°C increase), however, aggravates water for agriculture (paddy 13-23% increase) and industry requirements (6.42% increase). Since IPCC suggests degrading water quality, a study was performed on historical irrigation systems. The results show evidence of sustainable household and farm-level water management as inherited from the well-endowed indigenous knowledge, though 85% were aware of water shortage due to drought coupled with climate change. In agricultural areas 40% discharge their wastewater to the household plants however no such use in townships but 50% to open areas. Modern irrigation with ad hoc policies resulted in invasive plants, reduction of annual discharge, increasing sedimentation/erosion and 85% see lower quality water due to agrochemicals. The outcome necessitates the need to reevaluate the indigenous practices in water governance as a multifaceted approach in achieving SDG 6.

Key word: Sri Lanka, Water Stress, Indigenous, Irrigation, SDG 6, Water Management

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