Village Tank Cascade System of the dry zone of Sri Lanka

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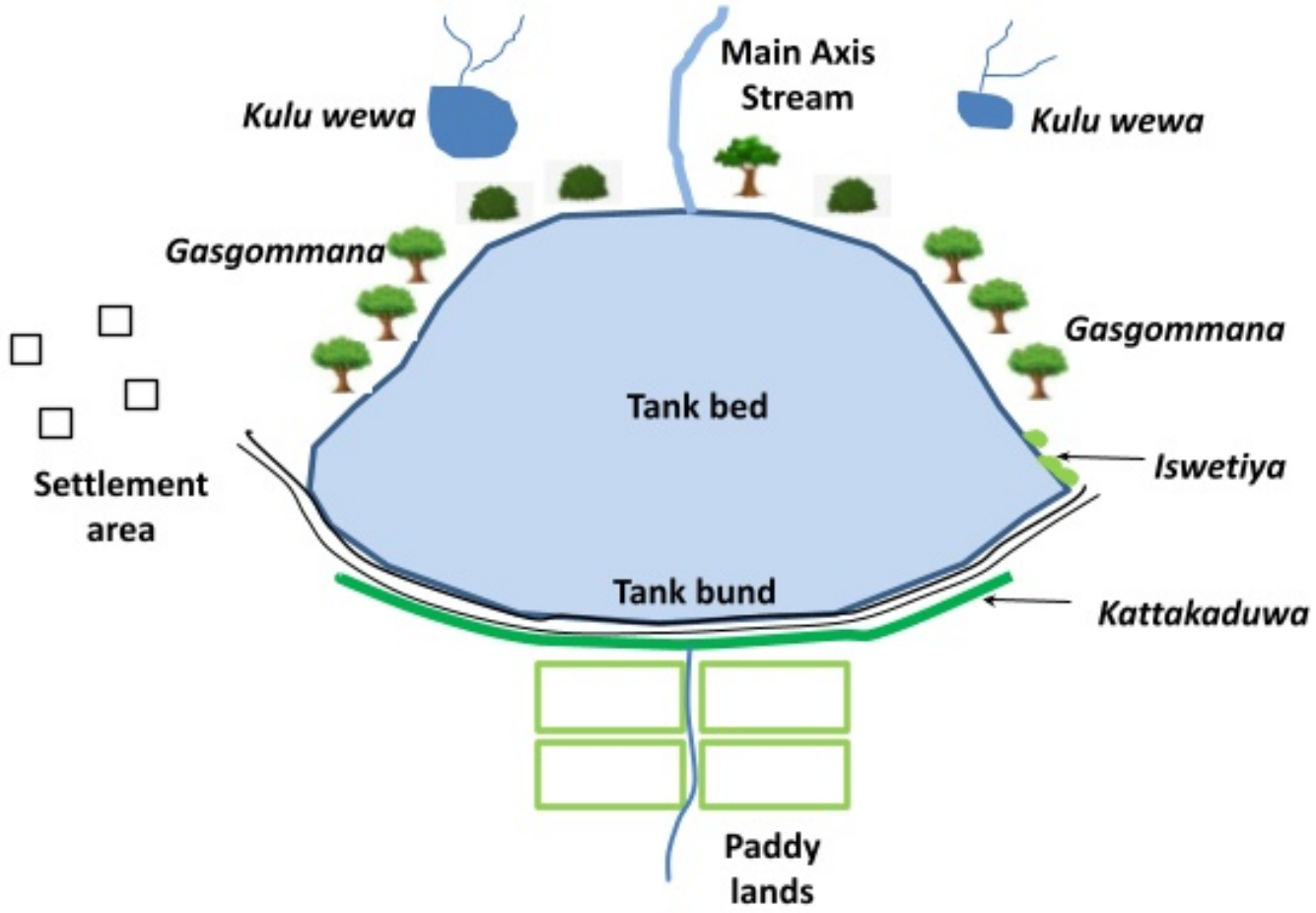
The demand of water has been triggered as hunter-gatherers started practicing agriculture in around 8500 b.c. All ancient civilizations were established on river basins where water was ample to satisfy the needs of human life. Over the time, human settlements were extended to areas far away from river basins so that water has become scarce during the dry spells. Our ancestors used their wisdom and ingenuity to develop different technologies to store and conserve limited rainwater received by the Dry Zone and used for agriculture. The network of structures developed by our ancestors for harvesting and storing water in the low lying areas of the dry zone is named 'tank cascade system' (TCS). Advanced technologies used for the establishment of TCS about 2000 years ago are recognized across the world as unique.

Based on the landscape, rainfall and the need of the people, two forms of small irrigation systems have been evolved. They are called tanks and anicuts where the former store water and the latter connected series of tanks organized within minor or meso catchments form the cascade system. The major purpose of the TCS is recycling and reusing water through a network of small to large-scale tanks.

The TCS has several components and each of them provides a specific function to ensure a supply of good quality water throughout the year. Several components can be identified in a cascade system. Those are, tank bund and tank bed, connected irrigation channels and paddy fields, protected forest in the catchment and rainfed uplands, and high elevation household area.



Basic components of small cascade system in Sri Lanka