

Significance of Kulam as a Component of Urban Public Space with Special Reference to Jaffna City

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Abstract

Terminology: Kulam (Kulangal : Plural) is a Tamil word for a manmade water body that harvests rainwater, built to prevent wastage of rainwater.

This paper studies the criticality of 'Kulangal' in the context of war-stricken Jaffna in an environmental perspective, looking at these drainage ponds as having potential to be incorporated as a component of public spaces that are usable by the people of the city. They are artificially created or created in existing natural depression the 'Kulangal' act as a catchment for rain water, serving to recharge water to underground aquifers.

Cities can be described as complex human settlements with highly dense populations, complex infrastructure and built environment. Green space and Blue space are the new terminology that is used in urban design of open spaces of a city. Urban green spaces are salient to the composition of great cities, where these public semi- natural spaces entwine with the built fabric of the city. The necessity for green space results in the conversion of existing natural spaces or built environments into open green spaces that are usable, an essential aspect that reflects a constant need for connection between the human and the natural environment, in order to establish calm, wellbeing and good mental and physical health.

As *Kulangal* serve the dual purpose of serving as a characteristic feature of the Jaffna landscape while also being a sensitive element of the environment, it is essential to rehabilitate these *Kulangal* and convert it into usable public open space that can enrich the lives of the urban population of Jaffna.

As a result of the civil war that lasted more than two decades, the social integration within the community and the importance of sensitive components of environment were neglected. As a result of the neglect these rainwater catchment ponds that collect, store and discharge gradually, excess runoff to the sea or lagoon are in a state of dilapidation. In addition to this foremost purpose of stormwater catchment that result in lesser occurrence of floods during seasons of high rainfall, the *Kulangal* also act as cooling agents that help with drought mitigation.

The primary objective is to establish the importance of *Kulangal* as an element of the urban context of Jaffna City and the aim of this paper is to rationalize *Kulangal*, based on urban design theories, as potentially restorable water bodies that can be converted into public open green spaces as an integrated component of Jaffna's built environment.

The study was conducted in 3 different ways to study Kulam in Jaffna Municipal Council area. It is initially evaluated as the network of *Kulangal* and then focus on two *Kulangal* as individual case studies. At last a public survey was conducted to gauge their awareness of the historical significance of the *Kulangal* as well as their perceptions and opinions of the redevelopment of *Kulangal* as a significant part of public realm of Jaffna City.

Keywords: Kulam, public open green spaces, Blue space.

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