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Resilient City Design To Overcome Urban Flood Risk: Sponge Urbanism As A Tool, A Case Of Aluva

Climate change and urbanisation results in increase in risk towards urban flooding. Resilient city design focuses on “living with water”. This design incorporates green infrastructure, river edge treatment, building design, public space design etc.

Sponge urbanism is a method for resilience which is founded by China. Sponge urbanism is an apt method for resilience built up in a tropical city like Aluva which faces heavy rainfall during half of a year.

Aluva is an urbanised town which is susceptible towards urban flooding. Impervious and hard construction techniques contribute towards urban heat island and flood risks. Natural methods of construction can increase the resilience of the town and these natural methods are designed according to the spatial requirements of Aluva to act as a sponge city. This project is focussed on reducing the flood susceptibility of Aluva and this allows to formulate guidelines for the town and to identify a high-risk zone and provide a prototype of Sponge city construction to act as a model for future constructions.