Impacts of eco-environmental quality, spatial configuration, and landscape connectivity of urban vegetation patterns on seasonal land surface temperature in Harare metropolitan city, Zimbabwe

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ABSTRACT

The study examined the impact of eco-environmental quality conditions, spatial configurations and landscape connectivity of urban vegetation on seasonal land surface temperature (LST) in Harare, Zimbabwe between May and October 2018. The results showed that densely built-up areas with sparse vegetation experienced extremely poor eco-environmental conditions. Clustered and highly connected were more beneficial in decreasing LST. These findings have important urban and landscape planning implications regarding how the spatial configuration and landscape connectivity patterns of urban vegetation can be optimized to mitigate Urban Heat Island (UHI) effects and to improve the thermal comfort conditions in rapidly urbanizing cities.