

Environmental Science: An Indian Journal

Editorial | Vol 17 Iss 11

Editorial Note on Pollution

John Kennedy

Editorial

As the global climate change conversation intensifies and nations look to minimize environmental impacts in their own backyards, nature-based solutions are garnering new levels of interest. Trees are widely recognized for their role in sequestering carbon, and capturing and storing rainfall in their canopy to manage stormwater runoff, but to date there has been minimal research and clarity around how urban forests in particular can be used as practical stormwater management tools. Members of the academic community speculate that urban trees can help mitigate stormwater flows, but the actual amount of stormwater that trees remove through functions like transpiration, infiltration, and storage is not well established. To address this gap, University of Maryland researchers have conducted an empirical field study and concluded that single urban trees, such as street trees, function differently than trees grown in clusters featuring significantly greater transpiration rates. This result offers a new understanding of how to manage the landscape in urban settings to reduce the harmful effects of stormwater runoff.