

# **Nature-based Systems (NbS) for Mitigation of Environmental Pollution**

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## **Abstract**

The rapid increase of urbanization is likely to accelerate environmental pollution in cities. In recent years, increasing attention has been given to the application of nature-based systems for mitigation of environmental pollution. Nature-based systems such as bioretention systems, green roofs and constructed wetlands are widely adopted in urban environments for stormwater management and treatment, while roadside vegetation is utilized for mitigating air pollution of local traffic origin. These systems are low carbon, sustainable and environmentally friendly tools, and contribute to circular economy by conservation of natural resources and minimization of waste generation. This plenary talk will provide a broad overview of nature-based systems from an interdisciplinary perspective. Insights will be provided into pollutant removal mechanisms and various operating conditions of nature-based systems. The influence of environmental factors on their performance will be described. These details would be of interest to various stakeholders including city planners, urban problem-solvers, and environmental professionals for selection and implementation of suitable nature-based systems for mitigation of urban environmental pollution.