Green-Gray Assessment: How to Assess the Costs and Benefits of Green Infrastructure for Water Supply Systems

Developed by: **World Resources Institute**
Launched in 2019

CATEGORY
Engaging Local Communities, Maximizing Water Benefits, Planning Forest-Related Projects, Valuing Trees and Forests

REGION
Applicable globally; Developed based on work in Latin America

FOREST LEVEL
Inner Forest & Nearby Forest

SCALE
Sub-national, Municipality, Project

RESOURCE TYPE
Guidance and Framework, Analysis Tool

EXPERTISE LEVEL
Specialist—experience with environmental economics and forest hydrology recommended

INPUT DATA REQUIRED
Information on water supply system, watershed conditions, ecosystem valuation, and more

OUTPUTS
Quantification of the financial, social, and environmental benefits for incorporating green infrastructure as well as a stakeholder map and stakeholder engagement strategy

LANGUAGE
English

COST
Free

ADDITIONAL GUIDANCE
Read an overview of the tool.

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Why Use the Tool

The Green-Gray Assessment guide allows stakeholders to value the costs and benefits of integrating green or natural infrastructure into water supply systems to improve performance. Building on the latest applications of this work in Latin America, this guide overviews the green-gray assessment's three pre-assessment steps and six main steps and provides recommendations on how to present results. The guide can be used in conjunction with the Natural Infrastructure for Aquifer Recharge Financial Calculator, an Excel-based tool with a flexible financial model that estimates the private costs and benefits (including the return on investment) of natural infrastructure interventions designed to enhance aquifer recharge.

Recommended Tool

Cities4Forests recommends the Green-Gray Assessment guide as it provides essential analysis on the costs and benefits of green infrastructure. Although the guide focuses on case studies from Brazil and Mexico, the step-by-step methodology is suited for global contexts.

Past Use Cases

Green-gray assessments have been used throughout Lain America, including in Monterrey, Mexico; Rio de Janeiro, Brazil; and São Paulo, Brazil.
Read more in the guide.