

Sustainable Integrated Stormwater Management

(with spec. focus on the tropics)

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Rapidly growing population and limited resources necessarily call for sustainable rainwater management concepts in highly dense and dynamic urban spaces, especially in the tropics. Objectives of stormwater management measures are the reduction of intra-urban flooding, the establishment of efficient cooling systems for buildings, and a sustainable concept for groundwater recharge. The initial situation for the case study HCMC is characterized by increased urban flooding as a result of changes in the regional climate, unsustainable urban development and a rise in urban sealing. The demand for fresh water resulted in an overexploitation of groundwater resources leading local subsidence effects and salt water intrusion.

Adapted and transferable implementation of technical centralized and decentralized measures offers solutions for sustainable rainwater management in an urban setting. To include area-based measures into urban planning efforts, an identification of potential sites for the different measures and upscaling procedures from pilot sites to the urban area (transferability) are necessary. To ensure sustainable development in the future, the technical solutions have to be directly integrated into the local administration. Comprehensive communication- and capacity-building measures accompany the administrative integration. The very close cooperation with local partners is necessary to adapt European technical solutions, identify suitable areas and ensure a proper integration of the findings into the local administration.

Technical rainwater management solutions should be explicitly configured as demonstration plants to enable the transfer of technology into other urban areas with special focus on the tropics.

Agenda

Antje Katzschner, BTU Cottbus-Senftenberg

Moderator

Christian Lorenz, BTU Cottbus-Senftenberg

Short introduction about stormwater management

Harald Sommer/NN, Ingenieurgesellschaft Prof. Dr. Sieker mbH, Hoppegarten

Decentralised measures in the catchment

Thomas Hubrig, G.U.B. Ingenieur AG, Chemnitz

Design and project engineering of centralised measures

Wolfgang Genthe/NN, LAR Process Analysers AG, Berlin

Monitoring of water quality

Dr. Michael Waibel, Universität Hamburg

Implementation of technical measures into local administration