City greening by rain gardens - costs and benefits

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Abstract

In urban areas, the most pressing adaptation challenges are associated with the problem of poor retention of rainstorm water. Hence, recommended actions focus on improving rainwater retention in the landscape. One of the strategic direction of adaptation to climate change is including green infrastructure solutions like green roofs, green walls, water reservoirs along streets – supplying high vegetation, permeable ground cover and rain gardens. Due to a variety of proposals, the costs and benefits resulting from the implementation of a chosen solution should be regarded when selecting an appropriate action. Considering the above, the article attempts to show the costs and benefits of one of the solutions – a green garden. When analysing the cost of green garden implementation, account should be taken of the cost of investment and upholding, as well as the alternative cost of land use. Then again, the benefits of the rain garden comprise the losses avoided by limiting the effects of rainstorm as well as improving the quality and quantity of water in the urban landscape. The cost and benefit monetization makes it possible to decide on the financial viability of implementing rain gardens in the city.

Gjør byene grønne ved hjelp av regnhager

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Sammen med Ewelina Siwiec fra Institute of Environmental Protection i Polen har Vistas medarbeidere Anne Maren Erlandsen og Haakon Vennemo nylig publisert et paper om nytte og kostnader av å anlegge regnhager i byer og tettsteder. Paperet, som er trykket i tidsskriftet Environmental Protection and Natural Resources, bygger på fellesprosjektet om klimatilpasning i Polen som IEP og Vista gjorde i 2017. Paperet kan leses her.