

Copenhagen (DK)

Setting/Problem

The city of Copenhagen is addressing a problem of flooding in “Sct Kjelds Kvarter”, an old and densely populated urban area located in the north eastern part of the city. The area is located closely to one of the most popular parks in Copenhagen, though neither has accessible green space nor recognizably culture, café life or tourist attractions in the neighborhood. In June 2011 the area experienced the most intense flooding during an extreme rain event and is, therefore, one of the areas



identified in the Copenhagen Climate Adaption Plan (CAP) in risk of flooding due to increasing rainfall events and rising sea levels. In order to solve this problem, the city of Copenhagen initiated a pilot project in the area in 2012.

Objective

The main objective of the case study is to develop and implement best practice on how to innovate and integrate climate adaption in an existing urban area – with special attention on how to handle and manage increasing rainfall events while respecting the structure, history and architecture of the area. The City of Copenhagen and its Department for City Design and the Department of Parks and Nature, aim to increase the popularity of the Sct Kjelds Kvarter area and to motivate citizens to stay and take part in urban life. The area has an unused square area with potential for initializing urban life and private housing, which demands more green/blue space. In the short term (2014 to 2020), the area should attract urban planners and tourists to present at first Climate Neighborhood in Denmark and Copenhagen.

To prevent future flooding of the Sct Kjelds Kvarter area, the municipality of Copenhagen aims to implement a wide range of measures to address the focal issues of the city’s CAP (related to increasing rainfall, rising sea levels and increasing temperatures), to reduce the risk of flooding and damages as well as to test and document potential benefits from new ways and methods in water management. Proposed solutions include:

- Decoupling surface rainwater from the sewer system and reconstruction of roads in combination with development of green/blue space.
- Creation of a sustainable drainage system (SUDS).
- Development of urban green/blue space for recreation, leisure and cultural activities.

To involve the stakeholders in this process from a grey city to a green climate neighbourhood, a public office of the Department for City Design and the Department of Parks and Nature has been established in the centre of the study area, which coordinates stakeholder involvement and gives room for cultural and art events.

Expected outputs

The DST is expected to provide spatially explicit information on the (added) value, for citizens, the municipality and house owners, of the different proposed strategies, as well as a cost-benefit analysis of investment and maintenance of combined sewer and SUDS solutions. In addition, it is expected that the DST can calculate the effects of the different projects in the area (new metro stations, CAP and Urban Improvement) simultaneously. Finally, it is expected that the DST contributes to the development of a locally adjusted tool whose use can be replicated in other areas of the city.