

Research projects on climate adaptation of cities

In recent years the City of Gothenburg has been involved in various research projects on climate adaptation of cities. This has strengthened the knowledge and cooperation with researchers and other key stakeholders in Sweden. In the project "A City Structure Adapted to Climate Change" the Free Port in central Gothenburg was used as a pilot area. The different climate adaptation strategies; *attack*, *retreat* and *defend* were investigated and highlighted from a social, ecological and economical perspective. The project "Adaptation of Swedish Cities" resulted among other things in recommendations for spatial planning.

The project A City Structure Adapted to Climate Change

The pilot project 'A City Structure Adapted to Climate Change: Scenarios for Future Frihamnen' examines how three different climate adaptation strategies — *attack*, *retreat* and *defend* — can be used in planning and development of the Free Port in Gothenburg. An expansion of central Gothenburg is planned for the low-lying Free Port area, which means a development from dockland area to a dense mixed city. The focus is on how the district's planned buildings can be climate adapted to rising sea and water levels. The project investigates how the three different adaptation strategies would affect the area's sustainable development, i.e. the resulting economic, social and ecological consequences of each approach.

The project is transdisciplinary, which entails cross-border cooperation between practitioners and researchers from various disciplines. Through the use of workshops and focus groups, decision making support is developed for both practical and scientific results. The practical results will consist of a balanced assessment and report on how the climate adaptation concepts of *attack*, *retreat* and *defend* would affect the Free Port area's sustainable development. The scientific results will touch upon conflicts of interest and conflicting objectives identified during the focus group work.

"Consonance with nature", "Maritime heritage", "The Liveable city", "Adaptation for sustainable building" and "Branding adaptation and sustainability", which Climate adaptation strategy do you chose? The project has resulted in these five strategies that now can serve as a basis for climate adaptation plans in the Free Port and potentially in other locations in and outside Gothenburg. The practical result is composed of a balanced assessment on how the climate change adaptation concepts, attack, retreat or defense will affect Freeport area's sustainable development.

The project Climate Adaptation of Swedish Cities

During the period from January 2011 to April 2014 an interdisciplinary research project was carried out with focus on risks, possible actions and how different actions affect vulnerability. The aim of the project was to develop knowledge and methods that will help to facilitate and implement an integrated assessment of climate-related risks in spatial planning.

More information:

Read more about the project A City Structure Adapted to Climate Change (in English):

<http://www.mistraurbanfutures.org/en/project/city-structure-adapted-climate-change-pilot-project-2010-2011>

http://www.mistraurbanfutures.org/sites/default/files/climate_change_adaptation_of_frihamnen_poster.pdf

http://www.mistraurbanfutures.org/sites/default/files/dublinposter_maj12_v_10_3_low.pdf

Read about the recommendations of the project Climate Adaptation of Swedish Cities (in Swedish):

http://www.gvc.gu.se/digitalAssets/1482/1482428_klimatanpassning_svenska_stader_webb.pdf