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Context

Climate change has various effects on urbanized regions, but sofar this has received little attention. The EU Green paper, for example, was based primarily on direct effects and forgot about the urban environment. However, most economic and social damage from extreme events has to be expected in urbanized areas. Urgencies – between brackets - seem to pop up all over the urban regions and can be regarded as indirect as well as direct effects of climate change. There is a difference in perspective between the approach of risks and hazards on one hand and the occurrence of emissions on the other hand.

What do we know/not know?

Temperatures in urban areas rise much more than in the periphery, due to the heat island effect. Heat waves make more victims in urban areas than in peripheries, due to the lack of "cooling down options". Urban water systems do not have the capacity to deal with dynamics in the water cycle – whether it is due to extreme rainfall, upcoming groundwater, rising sea levels or extreme water use and extreme droughts. Sustainable building has been focussed on reducing energy consumption (mitigation efforts). The use of air conditioners is rising because most buildings tend to overheat in summer – they are too well insulated. It is often not clear whether changes in urban regions are the result of urbanization itself (compact city policies and the heat island effect), from growing mobility (bad air quality and loss of public green space, due to parking), or from degradation of neighbourhoods (liveability, poor spatial quality and neglected management). All of those changes in urban regions seem to be intensified through the process of climate change. What we do not know either is which measures should or can be taken to make urban regions "climate friendly".

What is being studied?

In phase 1 we studied through workshops and interviews with public and private stakeholders what the prime urgencies are in urban areas and which questions should be dealt with in the near future. An analysis has been made on what happens in other countries – and foreign universities - especially concerning urban areas with a less moderate climate. The most important effort of the activities was to integrate fragmented approaches that we found both in the urban institutions and in the scientific community.

What are the results, and who are they for?

The results are targeted on those NL urban regions that already show major spatial developments and will grow in the next generation (Nota Ruimte Key projects). The cities of Arnhem, Nijmegen, Groningen, Amsterdam, Rotterdam, Utrecht and Maastricht have been involved in the dialogue. A first set of tools for analyzing problems and solutions will be the outcome of this first phase. Phase 2 of the dialogue project aims to cooperate with the cities in project teams (community of practice CoP). Phase 3 will contain the analysis of the actions and publication of good practices – about the do's and don'ts.

