

Session DD 4.1: Climate change and climate proofing urban areas: adaptation strategies in urban areas

Chairs	Ronald Albers, TNO, the Netherlands (first part) and prof. Simin Davoudi, Newcastle University University, United Kingdom (second part)
Keynote speaker	prof. Simin Davoudi, Newcastle University University, United Kingdom
Speakers	Bianca Stalenberg, Delft University of Technology, the Netherlands Jeroen Rijke, UNESCO-IHE, the Netherlands Dr. David Major, Columbia University, USA Anthony Bigio, The World Bank, USA Dr. Khan Rahaman, Khulna University, Bangladesh Dr. Hens Runhaar, Utrecht University, the Netherlands Debra Lam, Arup, Vietnam
Rapporteur	MSc. Berend van Zeggeren, Climate changes Spatial Planning, the Netherlands

Recently we've seen a change from the exact science of climate change (what is happening) towards the science of decision making regarding climate change actions (what should we do). Decision theory is nothing new, but it needs to be extended for climate adaptation, says Simin Davoudi in her keynote speech "extending the rational choice model of decision making in climate adaptation". She elaborates on the three main perspectives in decision theory. The rational perspective, where we see people as utility maximisers. The psychological perspective, which acknowledges the fact that people's rationality is bounded by their cognitive abilities and third, the sociological perspective, in which rationality is bound by social processes. Regarding these social processes, Simin Davoudi notes three social pressures on decision makers: coercive pressures (social sanctions: what we have to do), mimetic pressures (imitating others: what others do) and normative pressures (values and norms: what should we do). Davoudi concludes that decisions can be effective even when not everything that we want to know is known. When it comes to adaptation policies, we should recognise the fact that people are at the same time naive economists, naive rationalists and naive sociologists.

To facilitate decision making in urban renewal Bianca Stalenberg introduces the AFD concept (Adaptable Flood Defences) wherein urban functions (living, working, recreation) are integrated in the flood defence systems of a city. Bianca presents an example from Nijmegen where a car park and recreational activities are incorporated in the city's flood defence wall. AFD, states Stalenberg, has the potential to create synergetic riverfronts by combining technical (flood defence) structures with urban functions.

Jeroen Rijke sticks to urban renewal in his presentation, urging that we have to adapt not where we should, but where we can. In a recent vulnerability assessment Jeroen and others found that it is hard to quantify the sensitivity of urban areas, since these assessments do not provide the needed answers because of uncertainties. Jeroen sees three pathways for adaptation: business as usual, active adaptation and opportunistic adaptation: free rides with ongoing (re)developments. Jeroen states that by now, 43 percent of our houses, offices etc. have reached their (economic) expected end of life span. Instead of trying to start new (costly, complicated and time consuming) adaptation plans we should take all opportunities to adapt when buildings and sites are redeveloped. If we do so, by 2050 as much as 92 percent of our building stock can be climate proof.

For Dutch cities, Hens Runhaar found that government strategies do take floodrisks into account, but that heat stress in cities is often completely overlooked.

In the following presentations David Major, Anthony Bigio, Khan Ramahan and Debra Lam take us to New York City, Egypt, Bangladesh and Ho Chi Minh City respectively and give us useful insights and lessons learned in the adaptation processes in these cities. For Bangladesh, there are many initiatives already, and the country even has its own adaptation fund, but there is a strong need for these initiatives to have a place where knowledge and experiences can be exchanged. Major, Bigio and Lam stress the need to involve all stakeholders in the process and work on institutional capacity.