



DELTA IN TIMES OF CLIMATE CHANGE II INTERNATIONAL CONFERENCE

OPPORTUNITIES FOR PEOPLE, SCIENCE, CITIES AND BUSINESS
ROTTERDAM THE NETHERLANDS, 24 – 26 SEPTEMBER 2014

Deltas in Depth scientific sessions	
Deltas in Depth 2. Flood risk management	
DD 2.1 Analyses and mitigation of social disruption	
Chair	Dr. Frans Klijn, Deltares, the Netherlands
Presentations	<ul style="list-style-type: none">● Wilfried ten Brinke, Blueland Consultancy, the Netherlands● Joost Knoop, PBL, the Netherlands● Andreas Burzel, Deltares, the Netherlands● Dr. Karin de Bruijn, Deltares, the Netherlands● Dr. Frans Klijn, Deltares, the Netherlands

In this parallel session the topic of social disruption due to flooding was addressed. Definitions of social disruption were introduced, as well as methods to calculate and strategies to reduce social disruption in case of flooding.

Wilfried ten Brinke explained in his presentation “Social disruption by flooding, A European Perspective”, that social disruption is a complex concept that goes beyond direct monetary damages. He showed that risk analysis criteria can be used to categorise social disruption.

Joost Knoop talked about “How to avoid social disruption? Options for the Dutch FRM policy to reduce societal risk”. He introduced strategies to avoid or reduce social disruption, including spatial planning, preparation of disaster plans, and avoiding surprises. The distinction between exceedance and flood probability, and examples of addressing newly discovered failure modes of flood defences were mentioned as a means to avoid surprises. As an example of flood loss reduction the potential to not evacuate cities in case of flooding but rather to create nearby safe havens within cities was put forward.

Andreas Burzel stressed in his presentation “Is calculation of casualties from flooding in Germany desirable? Methods and case studies” the importance to include loss-of-life (value of statistical life) in a cost-benefit analysis (CBA), which is not standard everywhere in Europe. Furthermore, other aspects of social flood risk were discussed including intangible losses. The importance and sensitivities of flood risk communication were also briefly addressed. During the discussion it was argued that CBA tends to underestimate mortality risk.

Karin de Bruijn presented “Societal flood fatality risk assessments: a method and its application to the Rhine and Meuse Delta”, a study on mortality functions and flood fatality assessment with many flood scenarios (breach locations, number of breaches).

Frans Klijn closed the session with his study on “Flood hazard mapping: on the purposeful combination of individual flood characteristics in behalf of hazard zoning”, researching the making of flood hazard maps, and on the new concepts of ‘flood fatality hazard’ and ‘flood damage hazard’ to obtain a single flood hazard map with a number of flood hazard zones.

