Session DD 7.3: Methods – CBA/MCA

Chairs	Prof.dr. Piet Rietveld, VU University, the Netherlands
Keynote speaker	Prof.dr. Jim Hall, Newcastle University, United Kingdom
Speakers	Karianne de Bruin, Wageningen University, the Netherlands
	Dr. Marija Bockarjova, VU University, the Netherlands
	Poh-Ling Tan, Griffith University, Nathan, Queensland, Australia
	Stelios Grafakos, Erasmus University, the Netherlands
Rapporteur	MSc. Marit Heinen, Climate changes Spatial Planning, the Netherlands

Jim Hall started this afternoon with a presentation on a quantified analysis of flood risk at Taihu Basin in China. The challenge here is to have sustainable flood risk management in a rapidly developing region. How are the risks of flooding affecting the basin over the next 50 years if you take into account urbanization, economic development and climate change. The audience was wondering if the socio-economic drivers are not much stronger drivers in this region than climate change. According to Jim they are both very important for development. It is very difficult to take the past into account because there have been made so many investments, it is difficult to disentangle the different factors. Therefore the exact relationship between economic growth and flood risk is hard to determine.

Karianne de Bruin presented how to develop an optimal investment strategy in flood projection measures under climate change uncertainty. She is proposing that by choosing between structural and non-structural protection measures you can minimize expected costs. With this model you take into account developing knowledge and thus less uncertainty in the future. Bart van den Hurk (KNMI) asked if Karianne considered the time delay between the decision of the investment and doing the investment. Also extreme events or disasters are an incentive to invest. Up till now these two factors are not taken into account in the model. Piet Rietveld isn't sure if uncertainty will be better in the future, that is a big assumption.

Risk valuation of immaterial damage in the context of flooding is new in the literature and in the Netherlands. Currently a value of statistical life (VOSL) is borrowed from transport research and is 2.5 million. Basically, VOSL is a trade-off between some amount of money (to be paid) and a change (reduction) in fatality risk. Marija Bockarjova gave a very clear presentation on how to valuate risk of fatality, injury and evacuation (VOSL, VOSI and VOSE) in the context of flooding. From here research the VOSL in the context of flooding is 7 million which is much higher than in transport. They also found a difference between flooding from rivers and flooding at the coast. There was a question from the audience if people were willing to pay more for prevention if they were exposed to flooding in the past. According to Marija they are significantly willing to pay more but not a very large amount.

Poh-Ling Tan explained the opportunities of Multi Criteria Decision Analysis as a decision support tool for the assessment of adaptation and measures. It provides a structure for breaking down a complex problem into workable units and it allows a group of people to understand each other's views and for each individual to 'reset' his or her own view after listening to others. Poh-Ling had positive experiences with bringing different voices to the table but there was some doubt in the audience if it would work in a real conflicting case.