



BASE: Integrated Adaptation Pathways at EU Level - How to Combine Case Data with Models

Ad Jeuken, Marjolijn Haasnoot, Maaïke van Aalst & Harm Duel, Deltares, Scenario and Policy analysis, Netherlands

ABSTRACT

There have been many studies done before to estimate the costs of adaptation against climate change. Main observations derived from the Climate Cost Study (Watkiss and Hunt, 2012): The coverage of adaptation cost estimates is limited; of all studies done, there is an uneven distribution of sectors, the majority of studies have been done for the coastal zone sector on flooding. The assessments vary heavily in methodology and approaches; the use of different metrics, time periods, assumptions with regards to changing socio-economic conditions etc. which makes it challenging to compare. Studies take place at different scales. Estimations based on global models, such as integrated assessment Models (IAM) represent impacts and adaptation only coarsely, lack technical detail, do not consider uncertainty or behavioural change and provide insufficient detail for national or sub-national adaptation planning. On the other hand national and local level studies imply large adaptation costs, mainly for flood protection, are difficult to scale up; the generally estimated adaptation costs are much higher than the adaptation costs as estimated by IAM studies because a.o. the marginal additional costs for climate change are rarely split from those induced by socio-economic change.

The BASE project is aiming at overcoming these shortcomings in two ways. 1) By carrying out both gridded sectoral and IAM model studies at European level and a large number of national to local case using a 'common grid' e.g. similar basic assumptions, definitions and scenarios results at different levels may benefit from each other and local case data might be upscaled using the EU wide models. 2) By applying the method of adaptation pathways (Haasnoot et al., 2012) uncertainty is made explicit, biases in preferences for certain strategies may be removed and cost and benefits are split into short term investments and optional long term costs and benefits. The paper will elaborate on the methods BASE will use to evaluate the case studies, strengthen the models by groundbased evidence and integrate results into pathways at EU-scale.

REFERENCES

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