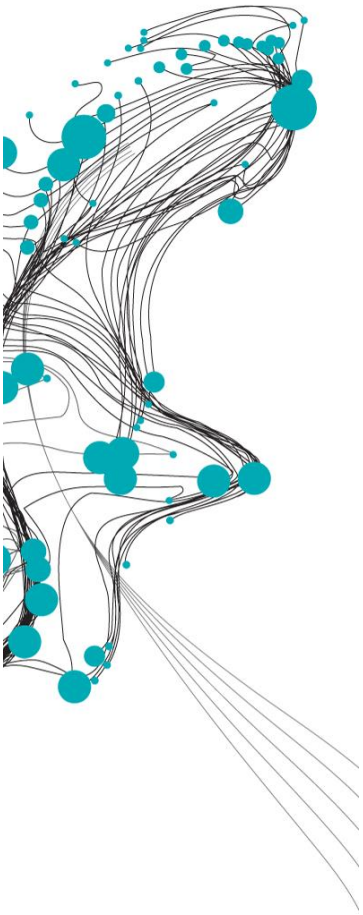
Towards facts in regional high-water projects: a comparative case study of the influence of authorities, stakeholders and uncertainties



Due to climate change many dikes in the Netherland need to be reinforced, since they do not meet the safety requirements. Since the reinforcement of dikes is expensive and sometimes difficult to implement often alternative measures are researched. Alternative measures for dike reinforcement are systemic measures. Systemic measures are flood risk mitigating measures that are aimed at reducing the likelihood and magnitude of floods and can complement flood defences. Although decision-makers often consider systemic measures, they eventually tend to decide in favour of dike reinforcement. The aim of this research is to provide insights into the steps that lead to decisions in regional-high water projects by analysing and comparing for two projects how facts are formed and how authorities, stakeholders and uncertainties play a role in the formation of these facts.

For this research a case study is performed at regional water authority Drents Overijsselse Delta. Two projects are analysed: the Stadsdijken Zwolle project and the POV (Project Transcendent Exploration) System Development High Water Perspective Overijsselse Vecht (POV Vecht). For both projects the generated solutions and alternatives were analysed. It was investigated for what reasons solutions and alternatives were rejected or not analysed in more detail and how uncertainties played a role in the decision-making process. To this end, it was examined which interactions took place with the responsible authorities and stakeholders during the decision-making process. The responsible authorities (e.g. municipalities or regional water authorities) were in charge of the major decisions. Whereas, stakeholders were all persons, groups and organisations with an interest or “stake” in an issue, either because they will be affected or because they may have some influence on its outcome.

The results show that in both projects a similar approach was used for the formation of facts. First, all solutions were generated at the beginning of the project. During both projects no new solutions were generated. Second, for some solutions different alternatives were generated. Then the promising alternatives were analysed quantitatively. Both projects used external engineering firms to analyse the effects of the alternatives. Authorities are mainly involved during the final decision for the most favourable solution. Indirectly, responsible authorities were informed in the project earlier, for example through experts, policy advisors or civil servants who were involved earlier in the decision-making process. Stakeholders were mainly involved in order to get input on alternatives and to check the public support for certain measures. In both projects stakeholders were not involved in the generation of solutions. One of the interesting findings of this research is that the responsible authorities and stakeholders can influence the formation of facts, without actual interaction. Since, some of the interim decisions that are taken during the decision-making process are based on expectations of certain stakeholders or groups. With respect to uncertainties, it was found that uncertainties are not explicitly used as an argument for rejecting solutions or alternatives or used as a substantiation for making certain decisions. However, implicitly uncertainties seem to play an important role in the interim decisions that were made. In both projects there seems to be a preference for systemic measures that can be realised within the district of WDODelta, on a small scale and have relatively low costs.

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