

FINAL POLITICAL REFLECTION

Course:

EPA141A Model-Based Decision-Making

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1 INTRODUCTION

For Deventer, the increasing flood risk of the IJssel river presents a significant challenge and is a complex problem. The uncertainty of the problem in combination with the involvement of various different stakeholders is what makes these types of problems complex (Schut et al., 2012). The most important objectives for Deventer were to minimize the number of deaths, the annual damage and the evacuation costs in this highly populated area. In order to achieve this, the best solution for Deventer would be to increase the dike near Zutphen with 40 centimeters, implement room for the river at location 3 and after some time also room for the river at location 2. However, our proposed policy advice is more nuanced. To convince other stakeholders of implementing this advice and making sure the advice is well used in political decision making is complex. There can be a gap between policy visions and practical implementation (Rijke et al., 2012). This reflection discusses the real-world application of the proposed strategy, considering the complex and political nature of the decision-making process. First, important challenges will be described. After that is reflected upon, the measures Deventer took to mitigate these challenges will be discussed. Then measures that can still be taken are presented and lastly the potential risks associated with the proposed strategy will be explained.

2 TENSIONS AND CHALLENGES

This section will explain several challenges encountered during the political decision-making process, which were of impact on how the advice was used. One of the important challenges in decision-making are the different interests and objectives of the different stakeholders about the problem (Schut et al., 2012). This challenge is reinforced by the deep uncertainty of the problem, where the different actors do not agree on the system boundaries and the outcomes of interests (Kwakkel et al., 2016). Wicked problems, such as flood management, involve numerous stakeholders and decision-makers with conflicting values and different ideas about solutions. It is difficult to agree on the formulation of the problem (Rittel & Weber, 1973).

The different interests and objectives of actors lead to various problem formulations, complicating the decision-making process further. The way in which the issue is framed can be very different, showing the different perceptions of the nature of the problem, the necessary actions and who should be responsible (Metze, 2014). It is important to be aware of the fact that these different problem formulations exist and that the different framings of the problem can impact the attractiveness of the options (Tversky & Kahneman, 1981). These different problem formulations can result in disagreement between the actors involved (Schut et al., 2012). For instance, there was tension between the Waterboard and Dike Ring 4 in the first debate. The tension illustrated how different interests and problem formulations can lead to conflict (De Bruijn et al., 2015). The Waterboard's focus was long-term environmental sustainability and drought resilience. Therefore they advocated for the Room for the River approach. In contrast, dike ring 4 of Gorssel prioritized protection of their land. Therefore they advocated for heightening the dikes. Another tension appeared when the Waterboard made clear they wanted an early-warning-system of three days, meaning that

people get warned and evacuated three days in advance of a potential flood. Deventer is against this proposal as it is a mitigation measure instead of a preventive measure. Evacuating people leads to a lot of costs and discomfort and should be avoided at all costs. These two examples show the difficulty of aligning different perspectives and priorities in decision-making processes.

These tensions between different actors brings us to another challenge; getting support for our proposed flood management strategy. As only a dike ding, we rely heavily on the Province of Overijssel to represent our interests. Communicating with other actors can be difficult, as stakeholders can be reserved and unwilling to share their objectives and interests. This was also what we as Deventer experienced before the first debate. This lack of transparency in the beginning made collaborating challenging, as it was difficult to align interests and build a strategy together (Brugnach, 2008).

In addition to the challenge of communicating with relevant stakeholders, there is the challenge of effectively communicating our model. A model used to propose a strategy to a problem under deep uncertainty, is never a perfect representation of the real world. In our model, certain assumptions related to our interests were made. And assumptions can affect the outcome of models (Walker et al., 2012). It is important that decision-makers understand and know the perspectives of the modelers. An example of the difficulty for decision-makers to take the proposed strategy into account when the modeling is not understood became clear during the first debate. The waterboard was hesitant to share their model with their proposed strategy when the province of Overijssel asked this. This made it difficult for Overijssel to move on with their strategy, as they could not understand the basis for the Waterboard's outcomes.

3 CHALLENGE MITIGATION

To address the tensions and challenges, several actions were taken. These included being open to collaboration, being transparent, effective communication and broader consideration of the different objectives of stakeholders.

First of all, we tried to be open for collaboration and seek contact before the debate with the relevant stakeholders to try to understand their objectives and concerns. As mentioned earlier, this was not as easy as we had hoped. But we did speak with the Waterboard. That conversation already made clear that our goals were quite aligned. During the first debate there was a good possibility to listen to the perspectives and concerns of the different actors. As De Bruijn et al. (2015) explains, when all actors can put their issues and concerns on the agenda, the problem shifts to a multi-issue game and it is attractive for all to take part in the debate.

Secondly we tried to be transparent from the beginning and throughout the first debate to secure understanding and support from other actors. Transparency is important for other actors to understand our view, and finding solutions collaboratively (Brugnach et al., 2008). By clearly stating our objectives, we hoped our interests would be effectively represented by the Province of Overijssel during the debate with Rijkswaterstaat. Observation during the debate indicated our interests were conveyed. Also during the final debate, Rijkswaterstaat explicitly stated our goals, suggesting our approach generated support.

What probably also helped in gaining support was the way we tried to frame the problem; our area is crucial due to the high population density. The argument was made that protecting human lives is more important than protecting land. We hoped this framing helped in strengthening our position as Dike Ring.

Lastly, our strategy was to not only focus on our objectives but also take into account more general objectives considered by Rijkswaterstaat. Like the expected number of deaths and annual damage in all five dike rings and the total investment costs. We tried to identify overlapping outcomes to align our objectives with these other stakeholders, making our solution more inclusive.

4 WHAT CAN WE STILL DO

By already implementing the just discussed actions to mitigate tensions and challenges, we tried to have a positive influence on the decision-making process. However, there are still some actions that might be taken in relation to our proposed advice.

The most favorable solution for Deventer was already discussed in the introduction. But there are also two other options. The cheapest strategy would be to only increase the dike of Zutphen by 30 centimeters. The more sustainable solution, which has reasonable investment costs, would be to increase the dike of Zutphen by 20 centimeters and implement room for the river at location 1 after some time. Effective communication of these results to policymakers is essential. It is important that the trade-offs and interpretations of the different approaches are clearly explained. Hereby it is important to take into account that policy makers have limited information they can process (Cairney & Kwiatkowski, 2017). So communicating needs to be done with careful consideration.

Given that the proposed solution involves dike heightening in Zutphen, a city in Gelderland, it is important to make sure that they feel supported. To mitigate the perception that Gelderland has the feeling they need to do all the work, it is important to actively communicate with them and explain that this would be a collaborative approach with shared responsibilities and that we are willing to help, also by supporting them financially, to execute the plan of this dike increase.

Moreover, time constraints have limited our ability to incorporate the objectives of more stakeholders, than only Rijkswaterstaat, into account. Future research can strive to take more perspectives into account. By adopting this multi-issue approach, we can create a more nuanced and realistic model. This would be likely to increase stakeholders' willingness to compensate and make concessions even more (De Bruijn et al., 2015).

5 REFLECT ON PROPOSED STRATEGY

Implementing the optimal policy for Deventer, which involves heightening of the dike in Zutphen of 40 centimeters and room for the river project at location 2 and 3, comes with several risks. This section discusses the risks associated with the proposed strategy.

One of the risks of this policy is its high cost. Implementing this policy requires a lot of budget and a critical question is who will fund this policy. This is a challenge, especially because Deventer is dependent on other actors to bear all the costs. Potentially, Deventer

can contribute financially to the project, alongside the Province of Overijssel, Gelderland and the other stakeholders. To hopefully result in a fair distribution of costs and benefits among the different actors.

Another challenge is that the Delta Commission has veto power over the final policy proposal, making their approval essential. A risk is that they do not support the proposal and are therefore not willing to financially support it. That is why their vision and long-term goals influence the budgetary decisions. In the debate they explained that they are willing to pay a higher percentage if Room for the River projects are included than without. As the proposal includes two Room for the River projects, it is important to stress this part of our advice while communicating with the Delta Commission.

If it turns out that our policy proposal is too expensive, another option is to go for only dike heightening. To be precise, increasing the dike of Zutphen by 50 centimeters. While also this solution is effective for flood prevention, it is the least appealing option for the Environmental group. And while De Bruijn et al. (2015) explains that it is difficult to get all stakeholders onboard, this opposition can lead to the risk of not getting any of our advice implemented.

While the proposed policy strategy advice for Deventer offers important benefits, it also presents notable risks related to financial constraints, stakeholder opposition and environmental concerns. Addressing and being aware of those risks can make sure the policy will be more effective in the final decision-making.

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