

Political Reflection

Final Assignment



(Flooded IJssel river. Retrieved from <https://www.deltares.nl/en/projects/governance-smart-combinations-rules-collaboration-flood-risk-mitigation/>)

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Policy advice

This report was conducted to answer the following research question: *“What flood risk management strategies can the city of Deventer implement in order to guarantee the safety of the region, taking into account the conflicting objectives of the stakeholders involved and the deep uncertainty inherent to the future development of the system?”*. In order to answer this question, a robust decision making approach was conducted, using scenario discovery and Multi Objective Robustness Optimization (MORO).

Based on the model outcomes, several suitable policies can be proposed considering the robustness and outcomes. However, as Deventer has minimizing deaths as the most important objective, one strategy stands out. In order to achieve its objectives, Deventer should aim for a policy that combines both making room for the river and dike increase at different locations. The preferred solution in order to achieve minimum death possible across most of the scenarios (the most robust strategy) is divided into three action times. First, in the first 25 years, dike 1, 3 and 4 should invest in dike heightening. Then, the same measure should be applied in dike 4 and 5. Finally, at the last time step, dike 4 and 5 should increase dike heightening again, while dike 3 should make room for the river. This policy is further detailed in Table 5, where the amount (in dm) of dike heightening is included.

Table 5. Detail of the proposed policy

	Time Step	A1	A2	A3	A4	A5
Room for the River	0	No	No	No	No	No
	1	No	No	No	No	No
	2	No	No	Yes	No	No
Dike Increase (dm)	0	2	0	7	1	0
	1	0	0	0	2	1
	2	0	0	0	4	1

It is important to note that this strategy is the result of the model and is hence restrained by the limitations outlined in Chapter 4. For this reason, our advice for Deventer is that, before deciding on policies to be implemented, further research is necessary into understanding the possible implications of this strategy. For instance, a cost and benefit analysis can be performed to understand the impact of the strategy proposed by the model and evaluate if it is better than its alternatives, taking into account financial, environmental and social aspects. Then, as most of the actions that compose the solution found in the exploratory analysis are to be implemented in later times than now, it is highly recommended that the analysis is conducted later on and takes into account the actual developments of the future.

Tension and challenges related to policy advice

The IJssel river flows through five dykerings (Doesburg, Cortenoever, Zutphen, Gorssel, and Deventer) which are located in the province of Gelderland and Overijssel. The province of Gelderland is located upstream of the IJssel river and consists of both urban and rural areas. The province of Overijssel is located downstream of the IJssel river and consists of both rural areas and urban areas, such as the city of Deventer. Other actors in the decision making arena are the transport company, Rijkswaterstaat, Deltacommissie and the environmental Groups. Getting a policy advice approved in a multi actor decision making arena comes with numerous challenges. This document will reflect on the challenges faced by Deventer when proposing a policy in the decision-making arena.

One of the challenges of adopting policy advice in the Room for the River project is related to the allocation of cost and benefits. As the Room for the River project is a game of win and lose, some actors will have to make trade-offs. If the province of Gelderland were to make Room for the River then this policy option would come with financial cost and the loss of farmland. However, the actors that would benefit the most are the dykerings in the province of Overijssel. Protection measures taken by an actor come with costs, but the benefits are reaped by actors located at a different part of the river, this is referred to as a split incentive structure (De Bruijn et al., 2015). The tension created by the proposed policy advice could incentivise actors to block its implementation. As actors are interdependent on one another, they will have the means and the opportunity to do so, possibly leading Deventer with no possible measure other than dealing with an increased flow of water if Gelderland does not cooperate.

A second challenge for adopting policy advice in the Room for the River project is related to information asymmetry. The Room for the River project encompasses multiple actors with divergent motives and interests. The priorities of the different actors and how they perceive the problem are often based on their behavior and their stance in the decision making arena. However, these might not directly translate into their mandates and actual goals, leading to a process of strategy building often based on wrongly made assumptions (Dewulf, 2007). For example, during the debate several actors such as urban dikes and provinces based their arguments in cost constraints. However, none of these actors had cost minimization as a goal in their mandate. This led to a discussion on cheap alternatives rather than efficient ones based on the wrongly made assumption about these actors valued.

Furthermore, the effects of climate change make it difficult to predict the state of the system in the future. This means that policy solutions have less data to evaluate their robustness and have to be able to adapt to an uncertain future. As actors perceive the problem differently and the future being uncertain, assessing the cost and benefit of a proposed solution becomes more difficult for themselves and other stakeholders in the process. Lastly, using different models that base the solution search in different scenarios and look into different outcomes of interest will also result in a clash of alternatives suggestions. This could hinder negotiation between the different stakeholders, as no common ground is found during discussion.

A third challenge for adopting policy advice in the Room for the River project is related to the framing of outcomes. Preferences of decision-makers depend heavily on how the outcomes are

framed. As the preferred policy of Deventer is that the dykerings in the province of Gelderland implement room for the river upstream, these areas can focus on the downsides of this solution: not only are they losing land, they are also losing productive farming companies and are not directly benefiting from this strategy, while Overijssel is consequently prospering. This negative framing of the results of this policy might make the province of Gelderland less willing to implement the strategy that Deventer is proposing.

Proposed implementation strategy

In order to deal with the challenges related to this decision-making process, decision makers could broaden the agenda and allow the involved actors to add their issues to this broadened agenda. This could shift the decision-making process from a single issue to a multi-issue agenda. After which coupling could be used to match actors with comparative objectives. Furthermore, decision makers could frame adverse outcomes in a more positive light in order to get support for the suggested policy advice.

Broaden the agenda: from a single issue to a multi-issue agenda

In order to minimize the volume of water that flows downstream, it is beneficial for Deventer if the province of Gelderland adopts a policy which includes Room for the River. However, the Room for the River policy comes with significant loss for the province of Gelderland and is therefore reluctant to enter the decision making arena. Therefore, the Deventer could broaden the agenda by stating that the mitigation measures are aimed at more than just flood protection, but also include spatial planning and tourism.

Furthermore, Deventer could incentivise other actors to enter the decision making arena by allowing them to add their issues to this broadened agenda. This is very effective because if actors do not add their issues to the agenda, they risk that decisions will be made without them on subjectives that interest them.

Furthermore, if actors are allowed to add their issues to the agenda then this could illuminate their interest and priorities to the other actors in the decision making arena. As actors get more acquainted with each other's interest and priorities they could start to form coalitions around subjects that interest them and become more leaned towards the demands of actors they will need in the future. Lastly, this multi-issue approach will become a game of give-and-take which will make actors more willing to accept trade offs during the decision making process.

Coupling

After the single-issue agenda is transformed into a multi-issue agenda the interest and priorities of the different actors becomes more transparent. Therefore, Deventer could link the preferred solution to the problems of the different actors in the decision making arena.

Framing and reframing: A positive outlook on outcomes

The idea of making Room for the River in Gelderland comes with loss and therefore has a negative narrative. By reframing the idea of making Room for the River as an unexploited economic opportunity, the narrative becomes more interesting for negotiation. For instance, Deventer could argue that properties next to the river often have a higher market value and thus link safety concerns with spatial quality.

Further, no matter how the outcomes are framed, in order to make consistent and coherent decisions, decision-makers need to reflect on what exactly is needed as well as take a predictive approach i.e.: by reflecting on all possible future consequences of a particular decision, which will ultimately help face complex problems with rational decisions (Tversky and Kahneman, 1985).

Risk related to proposed strategy

Broaden the agenda: from a single issue to a multi-issue agenda

Broadening the agenda is a means to bring the different stakeholders together in an effort to organize effective interaction, but this strategy is not a recipe for success. First the facilitator of this strategy needs the expertise to guide this multi-issue debate in order to keep it from falling apart. Second, participation in this multi-issue debate is not mandatory. Therefore, the effectiveness of this strategy could be reduced if key actors refuse to participate. Also, participation does not automatically mean that actors are interested in reaching an agreement. Lastly, tensions could still occur after agreements have been made because underlying issues and conflicts were not recognized or acknowledged during the multi-issue debate (Leeuwis, 2000).

Coupling

Coupling could be used to match the preferred solution to the problems of the different actors in the decision making arena. However, the use of this strategy could be diminished if the interests of the different actors are too far apart for reaching an agreement.

Framing and reframing: A positive outlook on outcomes

While the areas around the Room for the River site could be potential locations for housing developments, the farmers of Gelderland could contest this idea by stating that they wish to preserve the natural beauty of the area. The transport company could argue that making Room for the River could lower the water levels of that area which could hinder shipping. After Which the transport company could argue that transport over water is more sustainable than transport over land. Therefore the transport company could change the narrative by stating that Room for the River is not a sustainable option.

The risk of framing and reframing is that preferences can become inconsistent and incoherent just by trivially changing the frame of outcomes (Tversky and Kahneman, 1985).

Another risk of framing is that you can never account for the interest of all the parties involved. Therefore it is best to wait for a window of opportunity when the different stakeholders are willing to make tradeoffs (Warner & Buuren, 2011). Lastly, actors could use the same framing and reframing strategy to diminish the legitimacy of a proposed solution.

Conclusion

There are numerous challenges emanating from a particular policy advice that is considered in the decision-making arena. The first challenge is related to allocating cost and benefits which means that actors have to make numerous trade-offs and in doing so tensions can arise between actors, ultimately leading to abandoning of policy advice. The next challenge relates to information asymmetry, which means actors perceiving the problem differently and prioritising based on their distinct characteristics and stance in decision-making. This could lead to, their priorities not being reflected in their actual goals. Further, the uncertain future together with multiple perceptions based on using disparate models to come to conclusion can hinder negotiations between various actors. The last challenge involves preferences of stakeholders being heavily dependent on how outcomes are framed.

The first suggested strategies for Deventer is to broaden the agenda by considering not just mitigation measures but also spatial planning and tourism into the agenda and incentivising other actors to bring their issues to the table, so as to accommodate all the actor and encourage discussion that will lead to rational decisions. Another strategy encourages Deventer to couple the preferred solution to problems of different actors. The last strategy suggests how Deventer should frame and reframe the outcomes of Room for the River to bring out an interesting narrative as well as reflect on the current need and take a predictive approach to make rational decisions.

The risks related to broadening the agenda entail that expertise is needed to avoid the multi-issue debate from collapsing. Further, there is risk to effectiveness of this strategy when actors refuse to participate. Lastly, there is no guarantee that underlying issues and conflicts will be acknowledged during the debate. The risks related to coupling are that it does not necessarily work when the interests are distant from reaching an agreement. The risk of last strategy of framing and reframing includes a counter-strategy that may be posed by the transport company. The risk further relates to preferences becoming inconsistent and incoherent as well as how performing framing and reframing does not necessarily take into account all the interests of different actors and also a caution to how actors can diminish the proposed solution.

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