

Critical Reflection

Limiting Flood Risk of the IJssel River



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Course:	EPA 1361, Model-Based Decision-Making
Master:	Engineering & Policy Analysis, TU Delft

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Critical Reflection

An important part of the job of a scientist investigating a multi-stakeholder problem is making sure the advice that is given will be accepted and implemented by the actor the advice is written for, and by the other stakeholders in the context of the project (Buuren & Warner, 2011). In this reflection, potential challenges for use of the advice are examined. Afterwards, a strategy to cope with these challenges is proposed. Lastly, the potential risks involved in this strategy will be presented, together with a solution on how to avoid these risks.

Advice following from the analysis

The advice to the stakeholder for whom this analysis has been executed - the Province of Gelderland -, is to implement four out of five 'Room for the River' strategies, an increase of the dike at location A5 (Deventer) by 4 dm and implementing an Early Warning System (3 days to threat). This policy is reasoned from the Province of Gelderland and therefore opposition of other stakeholders might come forward, since Gelderland does not have to pay for the 'Room for the River' projects and the dike increasing at location A5 (Deventer). So therefore also included in the analysis are the preferred solutions reasoning from the other main actors; the Province of Overijssel and Rijkswaterstaat. The Province of Overijssel also is in favor of the 'Room for the River' projects, but prefers dike increasing in other locations (when they do not have to pay for it). As comes forward from the analysis, Rijkswaterstaat is more in favor of increasing dikes than implementing 'Room for the River' projects, since these projects are more expensive than increasing dikes. Considering this, the advice is not very normative since in general it is difficult to say costs outweigh deaths, but this is not fully taken into account. These results come from analyses with a static model which does not include all outcomes of interest and will probably not align to future states of society. Therefore it is important to keep in mind that these analyses just give a grip on the candidate solutions, but are not a completely transparent and realistic reflection of reality, since for a simulation model, as used for the analyses, is a simplistic reproduction of the reality and is based on a lot of assumptions.

Challenges for this advice to be used

Having a rather technological solution to a problem with conflicting interests implemented by a national government will assuredly bring challenges. Since the IJssel has a length of 127 km (Rijkswaterstaat, 2018), it flows through different areas and thus this project affects different (local) stakeholders, within the provinces of Gelderland and Overijssel. The challenges for the advice to be implemented are related to this.

There are different challenges in this case related to the political and stakeholder dynamics, which makes it more difficult to construct an advice that will be directly accepted by all involved parties and implemented. First, there is a tension related to the cost-benefit distribution. The (monetary) costs will be covered by Rijkswaterstaat, which is why Rijkswaterstaat is an important player. It is important to keep in mind that Rijkswaterstaat has to agree with a proposed policy; if not, they have the power to simply not invest. Most locations where measures for flood protection can be executed, are in Gelderland, which is why this province will have relatively higher (social) costs - it might have to give certain parts

of land to the river or dikes might disturb the view, which may lead to opposition of people living in Gelderland. Another tension related to the cost-aspect is the fact that it appears Rijkswaterstaat can be 'pleased' if a province decides to financially contribute to a certain policy, if that policy is in great favor of the province (Deltaprogramma 2018, 2017). Provinces that took this financial contribution already into account in a yearly budget, will experience less disadvantages compared to provinces who did not.

Another challenge lies in the fact that trade-offs will have to be made between costs and safety - an ethical discussion that easily leads to opposition (Jongejan, 2008). Rijkswaterstaat has set a threshold, permitting 1 out of 100.000 people dying from a flood a year (Planbureau voor de Leefomgeving, 2014). Nevertheless, it remains a very sensitive subject and it should be shown that this is well-considered when constructing the solution - even if the policy cannot guarantee zero deaths. A challenge related to the number of victims, is the distribution of risk over the two provinces. For Rijkswaterstaat, most that matters is the overall picture - total costs, total benefits, total damage.

The last challenge lies in the fact that there is a tension between how the different criteria are rated by different stakeholders. For instance, Rijkswaterstaat has a long-term vision, since if this project is not future proof, another (costly) project has to be executed again in a few years. However, other actors might not see the bigger picture. Since for instance the provinces do not have to pay for the project, they probably mainly care about safety in their own region, where for Rijkswaterstaat the costs are important too. Then there is also a challenge in getting one-issue parties on board (Warner & Van Buuren, 2011); for instance a transport company 'only cares' about safe transportation on the rivers and would not like to get disturbed by any activities on the river.

Strategy to sell your advice

Given the challenges related to the political and stakeholder environment, a strategy to ensure this advice has impact and will be used, is important. The ideal strategy to ensure engagement of multiple parties and this way easier acceptance of the advice, demands combinations of multiple different parts. The key to get accepted as an analyst, is to disconnect science and policy making (De Bruijn, 2018). This concerns multiple aspects, which will be explained as strategies. First, the importance of framing the problem in a way it emphasizes the urgency, will be explained. Hereafter, a concept linked to this, broadening the agenda when dealing with a problem in a multi-stakeholder context, will be explained. A last part of the strategy relates to the role of the scientist. The scientist should be a player in the stakeholder context rather than purely an advisor.

Right communication: Create urgency and understanding

The way a problem is framed, is important in getting actors involved. The key here is to make sure the urgency of the problem is acknowledged: awareness of the problem should increase. In this way, the issue will get accepted by different stakeholders more easily (Rochefort & Cobb, 1992). A specific strategy related to this, is framing the issue as a matter of national safety. Do not only mention safety for people living around the IJssel, but frame this as it affects all people in The Netherlands, since a big part of The Netherlands is below sea level. As it has already been framed in international media: the Netherlands is in an endless war against water (Babe, 2016). Urgency should be created, convincing people of the need to act now, to protect people from dying because of floods, and make sure it is

clear that the proposed policy will be effective: “This plan will fight this war.” It is also important to emphasize the fact that local parties cannot solve this urgent problem themselves; a certain district with a high flood risk cannot on their own reduce this risk.

Making sure that stakeholders accept the magnitude of the plan, is related to this. The need to invest in a large project now, instead of having to invest in another small project in a few years, should be clear to all stakeholders. This is a strong argument for placing ‘Room for the River’ over dike heightening. When heightening dikes, a lock-in gets created, since they might have to be removed when more space for ‘Room for the River’ is needed (Kwakkel, 2018). Therefore, show that the problem is urgent and your plan is future proof and will effectively contribute to the war against water for a long time.

Getting multiple parties on board: Broaden the agenda

To challenge the fact that some stakeholders might not want to cooperate because they do not see it as their problem, it is important to broaden the agenda. Making an agenda that includes values of all stakeholder that might be involved, provides insight in the gains for each stakeholder (De Bruijn, 2018). Some policies can create co-benefits that are not directly mentioned in the model, but should not be forgotten to take into account. A way to broaden the agenda is to not only mention flood safety as an objective of a certain candidate policy, but to use the hybrid concept ‘Spatial quality’, which is an important objective in Dutch Spatial planning (Warner & Van Buuren, 2011). For instance, creating recreational areas where widening the river bed is part of the ‘Room for the River’, which can be a valuable argument for municipalities to accept a river widening strategy.

In 2016, a Dutch newspaper stated more nature was created because of the ‘Room for the River’ project (Beintema, 2016). By putting ‘nature’ on the agenda and proposing ‘Room for the River’ as one of the solutions to the diminishing amount of nature in The Netherlands, more parties will be in favor of the project, especially environmental groups can get a more positive attitude towards the project.

Another example of how important broadening the agenda is in getting certain policies accepted, has taken place in 2003 when a parliamentary decision was made that river widening was necessary at certain locations (Van Buuren et al., 2009). The municipality of Kampen in Overijssel was against this plan, since at the place where the river was supposed to be widened, Kampen wanted to build houses to meet the growing need for houses. However, the municipality also wanted to start the construction of a railway, the Hanze Line, at approximately the same location. The Ministry of Housing and Spatial Planning let Kampen make a regional development plan, where both the bypass of the river as the construction of the railway were taken into account. The Ministry of Infrastructure promised to make bridges or tunnels to make sure both the river bypass and the railway could be constructed, and suddenly Kampen was in favor of the plan. This situation exemplifies the opportunities of broadening the agenda in reaching agreement on solutions.

Scientist as policy broker: Become an attractive party to work with

As a scientist, it is important to get accepted by politicians to play a decisive role in a decision process. This part of the strategy does not imply how your policy will get accepted easier, but how *you* as an analyst will get accepted. For reaching this goal, it is important to take the perspective of a policy maker and give answers to all possible questions of policy makers (De Bruijn, 2018). The scientist should take the role of a policy broker: someone who defines the scope of choice for the decision maker, rather than acting as if the scientist knows the only best solution. Scientists are just there to facilitate policy making. This role is

often best received by policy makers (Pielke, 2007). The policy maker has the feeling of being in control over the situation and scientists are there to be consulted when certain aspects get too complex. This gives a strong incentive for stakeholders to involve scientists (De Bruijn, 2018).

Potential risks of this strategy

There are several risks an analyst should be aware of when developing a certain strategy to make sure the proposed policy is being implemented. The risks will be presented in the same order as the strategies. First, the risks of communication will be explained. Secondly, the risks of broadening the agenda are given and lastly, the risks of being an attractive party for cooperation will be explained.

Risks related to communication

“The hell doesn’t sell”, which basically means: if a problem is framed as unsolvable, people are inclined to refuse to believe the scientist who frames the problem this way. People discard or do not accept the message (De Bruijn, 2018). When framing a problem as urgent, make sure to sell your proposed policy as something that will contribute to solving this issue (Warner & Van Buuren, 2011).

Another risk related to communication is formulating a policy that is not specific enough. Once you have framed a policy as higher level problem, in this case ‘safety against floods; no one may die because of the water’, this will work in getting people involved. However, if you do not link a specific policy to it, then it will be swapped out (Kwakkel, J., 2018). So create urgency, but make sure stakeholders know it is not too late to do something about the problem, and immediately present your policy against the problem.

A last risk related to communication has to do with the fact that a too central approach to setting goals might be taken (Klievink, 2018). Non-central parties could feel unheard and might oppose to the plans as well. These non-central parties could, when they hear about the ‘big plan’ to broaden the river, assess various projects themselves. They set different measures and might not accept the ‘national level model’. If for instance a housing corporation had plans to build houses on the location where the river will be widened, this widening the river plan will not be accepted by them. This way, the policy lacks legitimacy (Klievink, 2018). Therefore, it is important to include all parties and make joint measures, which is in turn related to broadening the agenda.

Risks related to broadening the agenda

However, broadening the agenda is not without risks. The first risk related to this strategy comes with creating a multi-objective policy for a broad agenda, since these policies have proven to be vulnerable to one-issue opponents. This concept is called ‘discursive multiplicity’ and can occur when for instance environmental organizations have become part of the agenda, but claim the project does not create *enough* extra nature or is not green enough (Warner & Van Buuren, 2011).

A second risk related to broadening the agenda and creating a multi-issue agenda is that by engaging more stakeholders, your proposed policy asks for engagement of multiple stakeholders as well. If critical parties then refuse to cooperate, this will cause trouble for the implementation of the policy.

Risks related to trying to be too attractive

By trying to become attractive by facilitating the decision maker in its decision rather than pre-describing a certain policy, it is important to still be explicit about which choices are good and which are not. Make sure to reduce ambiguity to make sure politics is not influenced by the view of policy makers (Cairney & Oliver, 2016). If the facts are not entirely clear, this may lead to unfair outcomes which are too much influenced by emotional judgements.

Related to the risk of being too ambiguous, is the risk of your information being disputed. For opponents, it is an easy strategy to claim the information you provide is contested (De Bruijn et al., 2015). Assumptions are always partly based on opinions of analysts (Kloprogge et al., 2011), but to ensure these assumptions will be accepted, make sure they are supported by literature. An important strategy to avoid this risk, is to interrogate your measures and assumptions, before your opponents will do so for you (Vydra, S., 2018). Always be transparent about the assumptions you make and the data you use, to prevent resistance. So, even though you are trying to be an attractive analyst, do not let too much room for manoeuvre to the decision maker, but make sure the facts are clear and not debatable.

Conclusion to the reflection

There are some challenges when implementing a policy to solve a technical issue where multiple stakeholders are involved. The challenges relate to the fact that the cost-benefit distribution is not equal. Rijkswaterstaat pays for the biggest part of the project, while other parties have benefits too. Social costs may differ per location as well; dike raising can lead to benefits in downstream parts but leads to 'costs' (such as disturbed views) on the location of the dike raising. Then there are challenges in trade-offs that have to be made, for instance between safety and costs. Differences between how criteria are being rated among the different actors can also lead to tensions.

For the advice to be accepted and eventually implemented, there are a few strategies that could be followed. First, it is important to create a sense of urgency and to be clear about the fact the plan is future-proof and will succeed. Then, it is essential to involve important stakeholders by broadening the agenda and by being aware of co-benefits that might come with certain solutions, to use in a debate with these stakeholders. The last strategy relates to the role of the analyst, who should present the outcomes of the conducted analysis in such manner, that the decision-makers acknowledges its value. The analyst should keep in mind to only facilitate the decision maker in its decision.

There are risks attached to these strategies, which should not be forgotten. When communicating a certain policy, ensure to make clear the situation is urgent but not unsolvable. Clearly communicate the policy and be sure not to frame the plan on a 'too national' level, because this can make the non-central parties feel unheard. When broadening the agenda, the risk of 'discursive multiplicity' occurs when one-issue parties do not think their 'issue' is taken into account well enough and the risk of becoming too dependent on critical parties might arise. Finally, it is important to remain precise about the facts, model and assumptions, to protect the decision maker for making emotional decisions or opponents questioning the results.

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