Political Reflection

As addition to the Regional Water Management Report



(FMCP, 2024)

EPA141A Model-based decision-making
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21-06-2024

Group 16:

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Introduction

The purpose of this reflection is to critically examine the application of our analysis within the complex landscape of real-world decision-making. This reflection aims to assess the steps we have already taken to address these issues, propose further actions to mitigate their impact, and evaluate the overall effectiveness of our strategies to ensure that the analysis is both relevant and influential in the decision-making process.

Tensions and challenges in decision-making

Role as analysts

Within the "Room for River" project, we like to interpret our role as twofold, where we support decision-makers by providing thorough research and the resulting recommendations. As analysts, we conduct in-depth research, gather and interpret found data, and identify trends to inform our understanding. This involves executing several exploratory modelling techniques, in which deep uncertainty plays a big role. As advisors, we contextualise these insights within the broader political, social, and economic landscape, offering well-informed recommendations that guide decision-making. We highlight potential risks and benefits, and anticipate the implications of different actions.

By integrating our analytical and advisory roles, we ensure our analysis is accurate, comprehensive, and strategically aligned with the needs of decision-makers, bridging the gap between complex data and practical decisions.

Our process involved identifying our objectives, which focus on achieving a high level of water security not only for our region but also in collaboration with other water boards. We are prioritising Room for the River (RfR) for its benefits in managing both high and low water levels. However, we have also explored alternatives such as strengthening and building dikes to meet the preferences of our region's residents.

Initially, our strategy was to implement RfR in rural areas and dikes in urban areas, but this approach met with more resistance from rural areas than expected. As a result, we adjusted our approach to focus on implementing RfR further upstream, in collaboration with Water Board 1. This collaboration allows us to share costs and efforts to effectively protect both regions. Similarly, we aim to work with Water Board 2 where they can benefit from our actions and vice versa.

Identified tensions and challenges

Competing interests

A key tension in this decision-making process arises from the clash of competing interests. Different stakeholders have conflicting priorities and perspectives, each framing the problem in their own way. Politicians often use specific language and framing strategies to influence perceptions, shape value judgments, and encourage action (de Bruijn, 2019). However, this is not always transparent to other actors, adding an extra layer of complexity to the situation. When evaluating the proposed advice, it's important to recognise that transport companies have particularly conflicting priorities. They require deep rivers to facilitate the transportation of goods along the IJssel, making high water levels crucial for their operations. This

necessity often conflicts with the Room for the River (RfR) approach, which aims to lower water levels to create more space for rivers.

Additionally, the dike rings under the authority of Water Board 3 have distinct priorities. Urban dike ring 3 focuses on protecting the city and its inhabitants, whereas rural dike ring 4 aims to safeguard agricultural land to support year-round farming activities. Water Board 3 must consider these complex factors, including where to implement the RfR and/or strengthen the dikes, when making the final decision. This applies not only to dike ring 3 and 4, but also to the other dike rings, as these are also located in rural and urban areas. We investigate which other dike rings could be of importance for Water board 3.

As de Bruijn et al. (2015) note, when there are conflicting interests, there will always be many reasons to take advantage of uncertainties and questionable decisions.

Hierarchy, fragmentation and splitted incentives

Hierarchy plays a major role in the political field surrounding this decision-making. The many different actors are not all equally directly involved and therefore do not all have the same degree of influence in the political field. The Delta Commission and Rijkswaterstaat, for example, occupy a more prominent position in the decision-making process due to their significant involvement in the matter. Despite the water board being an independent regional governing body, it does depend on these other larger players for approving policies and resources.

Additionally, the political landscape is highly fragmented, characterised by a patchwork of municipalities, regions, water boards, and interest groups. By using a system approach within the Room for River project, costs and impacts on water levels and safety were considered. This involved numerous political players with diverse interests. Consequently, navigating this fragmented structure of organisations adds another layer of complexity to the decision-making process (de Bruijn et al, 2015). Especially due to the fact that there is a 'split incentive structure'; many of the actions and associated benefits are not in the same geopolitical location. This combined with the already fragmented playing field, makes the decision making even more complicated.

Resource allocation

The financial resources available are limited. This is where the concept of hierarchy plays a significant role as well. The resources of the water board depend on how Rijkswaterstaat decides to allocate the funds, which then passes through the Delta Commission and the two provinces of Gelderland and Overijssel. Consequently, there are many parties on the sidelines who cannot or do not want to invest. Take, for example, the transport companies; as private enterprises, they are unlikely to invest in public infrastructure, yet they have a significant interest in the final outcomes. Besides, this is a large civil engineering project and it can easily happen that more costs are incurred due to project delays (Tariq & Gardezi, 2023).

Long term vs short term

The major players with significant power primarily focus on long-term plans, given their substantial investments. Due to the high level of uncertainty within this project, resilience is necessary and effective. This entails anticipating and preventing long-term threats. In

principle, all actors benefit from this approach, but there are stakeholders who prioritise short-term gains. For instance, farmers residing in rural areas (such as dike ring 4) are more focused on short-term considerations, as RfR solutions may require using a portion of their land. Consequently, they seek prompt compensation.

Accounting for tensions and challenges

Proactive measures taken

We examined the priorities of urban and rural dike rings under Water Board 3 in more detail. Whereafter we considered compensation strategies, for farmers and other stakeholders potentially negatively affected by the RfR solutions. These included financial compensation, alternative land use opportunities, and other forms of support to minimise the impact of land loss or changes in land use.

To manage the complexity of decision-making and ensure that various interests are well-balanced, we based our policy recommendations on three key pillars:

- Cooperation with other organisations

We emphasised the importance of collaboration with other water boards and relevant agencies. By working together, costs and efforts can be shared, and a more integrated approach can be adopted that better balances the interests of all parties involved.

Availability of funding

We proactively investigated the financial implications of our recommendations and proposed funding mechanisms. This included both public and private funding, and we also explored ways to manage costs by establishing collaborations that enable cost savings. This is particularly relevant given the hierarchical and fragmented political structure involving various actors.

- Resident resistance

We paid extensive attention to potential resistance from residents, especially in rural areas directly impacted by the RfR measures. Through public consultations and community involvement, we aimed to understand and address the concerns of residents. We also developed scenarios that include various compensation and mitigation measures to increase acceptance.

By adhering to these three pillars, we created a framework that allows for better evaluation of the different trade-offs. This helps navigate the complex and often conflicting interests of the involved parties, as these can differ over time and per actor.

Strategies and adjustments

Broadening the agenda

To address the conflicting interests among stakeholders, one effective strategy is to make it a multi-issue game. As suggested by de Bruijn (2015), by expanding the scope of discussions beyond the immediate issue of flood management to include related topics such as agricultural sustainability, economic development, and environmental protection, we can find common ground among stakeholders. This approach allows for the integration of diverse interests, making it easier to build consensus. Facilitating regular stakeholder meetings and

workshops can help in aligning different interests. By ensuring that all voices are heard and considered, we can foster a sense of ownership and commitment to the final decisions.

Flexibility

Bringing such a large civil engineering project to success, without overrunning in time and costs, is closely linked to the consensus and commitment of the stakeholders. Allowing organisations to choose the most suitable ways to contribute to the project can enhance their commitment and efficiency. For instance, some stakeholders might prefer financial contributions, while others may offer technical expertise or land for project implementation.

Phased implementation

As the visions of actors differ, some have a long-term vision, others more short-term, the project implementation should be balanced. Differentiating the timelines for various measures could help. For instance, while the RfR measures are essential for long-term flood management, their implementation could be scheduled to start after a few years. This delay allows farmers and other stakeholders time to adjust and prepare for the changes. Meanwhile, more immediate measures, such as dike strengthening in critical urban areas, can be prioritised to address urgent safety concerns.

Communication

Throughout the future of the project, effective communication is crucial for successful decision-making. Maintaining open lines of communication about project goals, progress, and challenges helps in building trust and managing expectations. Regular updates and transparency in decision-making processes ensure that stakeholders are well-informed and more likely to support the project. Involving stakeholders in the decision-making process through participatory approaches can increase their sense of ownership and responsibility. This could involve setting up advisory committees that include representatives from various stakeholder groups to provide input and feedback on key decisions.

Reflection of proposed strategy

Potential risks

Climate change

The inherent uncertainties related to climate change, including the frequency and intensity of extreme weather events, pose a significant risk to the effectiveness of the Room for the River project. Climate change introduces deep uncertainty, making it challenging to predict future conditions accurately and design resilient systems. (Welsch et al., 2024)

Implementing adaptive management strategies that allow for flexibility and adjustments based on new information and changing conditions is crucial. Investing in robust monitoring systems to track environmental changes and the impacts of implemented measures can help in making timely adjustments. Additionally, scenario planning and stress testing of proposed measures can ensure they remain effective under a range of future conditions.

Overemphasis on technical or political aspects

Focusing too heavily on either the technical or political aspects of the project can lead to imbalances and inefficiencies. If political consensus is achieved without addressing technical feasibility, or vice versa, the project may fail to deliver the desired outcomes. A balanced

approach is necessary to ensure that both technical and political considerations are adequately addressed. As de Bruijn et al. (2015) suggest, the integration of technical and political strategies is crucial for successful project implementation.

Ensuring that both technical experts and political representatives are involved in decision-making processes is essential. Regular interdisciplinary meetings and workshops can help bridge the gap between technical and political considerations. Effective communication channels must be established to ensure that both sides are aligned and informed about the project's progress and challenges.

A good integrated approach is also important, as the two worlds of politics and modelling are very different from each other. Optimization in the model world seeks the best possible solutions within given constraints. However, in reality, constraints such as budget limitations and political feasibility mean that optimization can only go so far. If we consider infinite costs, the solutions might differ significantly, but such an approach is unrealistic. Thus, finding the optimal balance within the constraints of cost and political feasibility, must always be kept in mind.

Change in interests

The sudden withdrawal of a key stakeholder or a shift in their interests can significantly disrupt the project. This could be due to changes in political leadership, economic priorities, or unforeseen external factors. Stakeholder dynamics can change over time (Windsor, 2010), and the loss of a critical partner can lead to resource shortages and strategic realignments.

Building flexible and adaptable partnerships is key. Establishing formal agreements that outline the roles, responsibilities, and commitments of each stakeholder can provide stability. Additionally, maintaining open lines of communication and regularly revisiting agreements can help address changing interests and prevent withdrawals. Contingency planning for the replacement of critical stakeholders can also mitigate the impact of any sudden changes.

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