Room for the River as adaptive flood risk management in the Netherlands

Political reflection

EPA1361 - Model-based Decision-making

Twan de Nijs, Coen van den Elshout, Adam Ignasse, Nijs de Zoete, Folkert Post, & Jesse Schevel

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Introduction

The Delta Commission (DC) is considered a neutral broker in the development of resilient water strategies in the Netherlands. This is also the case in the IJssel Delta around the IJssel river. The DC considers it important that all objectives of the relevant actors are considered when working on long-term flood prevention. The DC thus looks beyond protecting citizens and materials against flooding, but also examines the socio-economic impact on the region, as well as conserving the environment along the river. It is the formal mandate of the DC to provide the Directorate-General for Public Works and Water Management (*in Dutch:* Rijkswaterstaat) —as the executive agency of the Ministry of Infrastructure and Water Management (I&W) —with resilient, long-term policy advice (Edelenbos et al., 2017).

The DC is therefore in favour of broadly supported policy, since it believes this also contributes to the resilience of the policy (De Bruijn et al., 2015). During the final debate, the policy was unanimously agreed by Rijkswaterstaat, the DC *(with veto power)*, the provinces of Gelderland and Overijssel, the transport NGO, and the environmental NGO. This demonstrates that all actors feel that the policy proposal balances the (conflicting) objectives fairly. However, that does not mean that this policy is already fully decided on. Yet, during the formalisation and implementation phase of policy development, there are still several challenges and tensions to be faced. To this end, this report provides the DC with political advice on how to deal with these tensions between and (conflicting) framing of actors in the next stages of the political decision-making process in the IJssel Delta.

1.1. Structure of the report

Tensions between actors due to conflicting objectives in the political arena may adversely impact how the proposal of Rijkswaterstaat ultimately will be carried out. As a neutral broker and one of only two actors with veto power, the DC plays a key role in the decision-making process and is charged to mitigate these tensions among actors. This first requires an identification of possible risks in the policy development process in Chapter 2. Attention is paid to the risks associated with multi-actor decision-making, the complexity of the political arena with conflicting objectives, incompatible timelines, and contested knowledge. Next, Chapter 3 addresses how these risks have been addressed by the DC. Future risk mitigation from the DC's perspective has been discussed in Chapter 4. Finally, Chapter 5 presents a reflection on current and future strategies employed by the DC. This chapter thus raises on the other hand lessons learned from the debates, on the other hand, provides recommendations to the DC on how to deal with future tensions and challenges.

2

Risks in the IJssel Delta

2.1. Multi-actor systems

The presence of multiple actors in the political arena is inherent to uncertainty. After all, every actor has his own objective, which can conflict with the objectives of other actors. In addition, actors can have mutual relationships, such as Rijkswaterstaat and the DC and the provinces with their dyke rings (Edelenbos et al., 2017). Moreover, actors are dependent on each other. Some of them formally, such as the dyke rings being dependent on their province and Rijkswaterstaat on the DC with veto power, others informally. Informally, because a majority of the six actors must agree to the policy, which means that a compromise will have to be found. All objectives and power relationships of actors in the IJssel Delta have been outlined in Appendix A.

In other words, the IJssel Delta can clearly be classified as a 'wicked problem'. On the one hand, there are discussions about the definition of the system (Kwakkel et al., 2016), like system boundaries. While Gelderland, as an upstream province, claims that most measures should be taken in Overijssel, as it is affected by flooding mostly as downstream province, Overijssel pleads that Gelderland is responsible for taking measures upstream. On the other hand, there is discussion about the problem definition itself (Rittel and Webber, 1973). Whereas the rural dyke rings (*i.e.,* Doesburg (DR1), Cortenoever (DR2), and Gorssel (DR4)) insist that raising dykes provides sufficient flood risk mitigation, which position largely supported by Overijssel, urban dyke rings Zutphen (DR3) and Deventer (DR5) are in favour of allowing Room for the River (RfR) in rural regions. Supporting its economic objective, Gelderland seems to endorse this position as long as RfR is implemented primarily in Overijssel. The geographical situation of the IJssel Delta has been mapped in Figure 2.1. Acknowledging that given policy levers have a direct influence on land-use and the regional economy, this without any doubt leads to tensions and red lines among actors. As a neutral broker, the DC's task is to find a balance between everyone's objectives and to prevent conflicts between the actors from perpetuating.

2.2. Adaptivity required

It is the DC's mandate to develop resilient, adaptive, and long-term flood risk mitigation policies in the IJssel Delta. Adaptivity is key in climate change mitigation (Heijnen, 2022; Silva et al., 2004). Not only because the exact consequences of climate change in the future are yet still unknown, but also because the Netherlands, as a downstream State in Europe, is dependent on European countries upstream. Moreover, it takes considerable time before mitigation measures have been shaped, since it concerns infrastructural constructions (Edelenbos et al., 2017; Maas et al., 2007). Early anticipation is therefore necessary. Even more important for adaptivity, however, is not to fixate on a single policy solution, but to have a broad spectrum of policy options at your disposal. Only then, robust policy fighting rising water levels in the IJssel river can be designed adaptively.

This seems to be a paradox with the outcome of the debate, in which the actors have agreed to a certain policy. The outcome of the debate very much feels to resemble traditional decision-making, in which a single policy has been adopted. Yet, this not true and the political arena decided on 'adaptive' policy instead. It is therefore up to the DC to continuously reiterate that, although on a policy has been agreed, the political arena did not agree on just a single static policy and that only real adaptivity

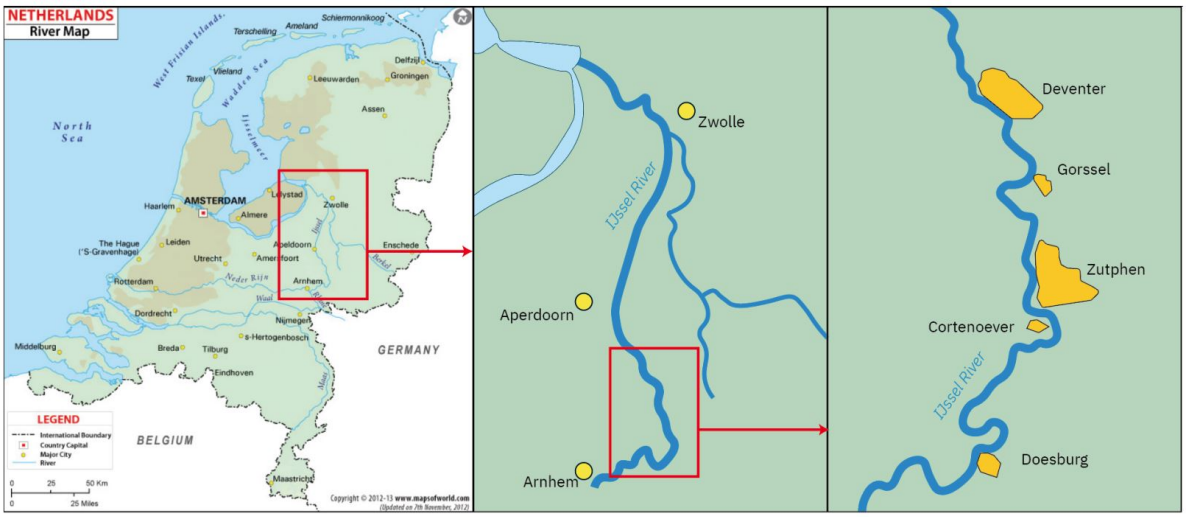

Figure 2.1: Map of the IJssel Delta (Netherlands River Map, 2011)

guarantees safety in the long-term. Because if the hypothesised future scenarios turn out differently, a static policy carries a great risk of failure (Haasnoot et al., 2013). As critical advisor to Rijkswaterstaat, the DC should constantly highlight the necessity of enforcing adaptive, long-term policies. The Ministry of I&W is run by politicians with often a short-term view, making them vulnerable to rapidly selecting 'traditional' policies rather than long-term adaptive policies like the DC is targeted at.

2.3. A (un)fair approach?

Politicians are often inclined to rely heavily on the model or to oppose the model (Saltelli et al., 2020). This often has to do with their knowledge of the model, such as the assumptions made and the limitations of the model. Especially with (major) conflicting objectives, this behaviour is often shown. Actors for whom the outcomes of the model are favourable will emphasise the usefulness of the model and propose to do *'what the model says'*. On the contrary, actors who feel disadvantaged by the outcomes will not accept the model and actively challenge the model and its results. As a neutral broker, the DC shall emphatically underline the assumptions and limitations of the model (Saltelli et al., 2020). Accordingly, the DC must explain that the model itself does not make policy decisions, but rather gives insight into the influence of scenarios and policy levers on possible outcomes. Studying the modelling outcomes, it is up to the various actors to come to a political agreement, in which the socio-economic and ecological concerns of the actors are included as well. At the same time, these political conditions are added by the DC as much as possible in the model design and in the interpretation of the results.

2.4. Contested knowledge

As discussed in Section 2.3, there is a significant risk that actors will contest the scientific knowledge of the model —and thus the policy. Sarewitz (2004) uncovers a paradox in this. Probably, the DC would add more scientific resources to substantiate the choices and limitations of the model more fundamentally. In practice, nonetheless, it appears that opponents use these scientific sources and assumptions to demonstrate the uncertainty of the model. This trend is currently clearly visible in the Netherlands in the nitrogen discussion (Schouten, 2020). The use of scientific sources is thus inherently linked to politicisation (Sarewitz, 2004). Contesting the assumptions, the frame is likely to arise that the DC is not neutral either, because it has objectives too, like long-term adaptive water policy in the Netherlands. Actors with conflicting interests therewith might try to undermine and neutralise the DC's position in the political arena, in the hope that the DC will embrace their view.

3

Integral risk management

3.1. Multi-actor systems

As part of iterative policymaking, the DC has to maintain good relationships with all actors in the IJssel Delta. The DC does this by communicating transparently about its actions to all actors and actively involving them equally in policymaking (Saltelli et al., 2020). Whenever a new policy proposal was developed by one actor, the DC sat down with the other actors to discuss its impact on them. When an actor was disproportionately disadvantaged by a proposal, the DC, together with Rijkswaterstaat, entered into a discussion with the actor concerned about how its position might be improved in view of its objectives. In these conversations, the DC used the list outlining the power, interests, and positions of each actor in Appendix A. Relying on this Appendix, it was continuously investigated by the DC whether trade-offs between actors were possible, for example between Gelderland and Overijssel, or the rural and urban dyke rings.

In addition, actors were actively encouraged to formulate their own policy proposal and send it to Rijkswaterstaat. Together with Rijkswaterstaat, an attempt was made to include as many of everyone's suggestions as possible in the final policy proposal presented in the second debate. In particular, the DC has taken into account the agricultural and economic issues of the dyke rings and provinces potentially affected by RfR. Neither the Dutch Ministry of Agriculture, Nature and Food Quality (LNV) nor the Ministry of Economic Affairs and Climate (EZK) had a position at the table, while the transport and environmental NGOs could participate directly in the debate. The situation should not arise in which these objectives were neglected. As mentioned in Section 3.1, given the conflicting interests of the different dyke rings in a province, it might be difficult for both Gelderland and Overijssel to highlight these objectives sufficiently as they are not supported by every dyke ring.

In multi-actor decision-making, the dyke rings should not be forgotten. All dyke rings are formally dependent on their province in the political decision-making process, as they are not allowed to vote themselves. Meanwhile, there are conflicting interests between the dyke rings within the provinces. This also makes it challenging for the provincial governments of Gelderland and Overijssel to adopt a single firm position on flood risk mitigation strategies, as rural and urban dyke rings do not agree with each other on the problem formulation (De Bruijn et al., 2015). Therefore, every dyke ring will try to convince its province of the value of its interests. This means that one of the dyke ring types may dominate or that the province cannot take a concrete position because of this division. To establish broad support in the provinces —thus also among dyke rings —the DC has paid extra attention to the objectives of the various dyke rings, ensuring that every dyke rings is included adequately.

Hence, in addition to contact with the voting actors in the IJssel Delta, the DC had regularly contact with the five dyke rings in order to understand their position regarding certain policy proposals. However, it is key to inform the provinces of this contact and to communicate the results of the discussion to them, to prevent Gelderland and Overijssel from feeling bypassed or overruled by a national government agency. It thence always has been stressed by the DC that inclusion of the knowledge of the dyke rings actually would improve informed decision-making, which improves support among actors for the policies proposed.

3.2. Adaptivity required

In the debate, the DC has repeatedly argued for adaptive policies with a strong focus on the long-term. Although Rijkswaterstaat also aimed at adaptive policy, the DC has emphatically demanded that the *status quo* policy is reviewed every ten years. If the policy proves to be ineffective for flood risk mitigation, new appropriate policy must be drawn up after this period. Not only is this necessary to deal adequately with the effects of climate change, but it also turned out to persuade doubting actors to agree to the proposed policy. This periodic review opportunity gave them sufficient assurance that any disproportionate impact on their objectives of this policy might then be reconsidered. Even though this means that there will always be a debate about flood risk mitigation measures in the IJssel Delta, the DC believes that this leads to more robust decision-making because this policy is adaptive and better balances the objectives of the actors in the long-term.

3.3. A (un)fair approach?

As a neutral broker, the DC assumes an egalitarian approach when acting (Krütlti et al., 2015). In an adaptive policy, it is impossible to pass on all consequences on (the dyke rings of) Overijssel. Meanwhile, the economic interests of upstream Gelderland and the transport NGO will also have to be accounted for. In sum, the chosen solution must distribute the consequences of the water policy fairly between the regions, bearing in mind the socio-economic impact of the plan on the region.

Together with Rijkswaterstaat, it was therefore decided first to amend the code for RfR as policy lever. The binary condition does not satisfy the ability to apply RfR in certain regions and just assumes total implementation in the IJssel Delta. Since a compromise has to be reached, full implementation of RfR does not seem a realistic policy solution. In the context of transparency, the code has been shared with the analysts to check whether it is correct. The results were shared with the other actors before the debate (voting and non-voting), so that they were prepared well and entered the debate with the same information as the DC and Rijkswaterstaat.

3.4. Contested knowledge

The DC has invested in the first debate in common understanding of the problem to counter contested knowledge immediately from the beginning (Sarewitz, 2004). Only if everyone's objectives and interests are recognised and the goal of flood risk mitigation is shared by all actors, one could draft well-founded and broadly supported policies. By acknowledging each other's objectives during the first debate and *ex ante* conversations, actors were open to explore a wide range of combinations of policy levers, which motivated all actors to participate actively. Active participation of the actors and shared knowledge eventually led to consensus in the second debate, as everyone understood the process —and model —to be fair.

4

Future flood risk management

4.1. Multi-actor systems

Due to the periodic review every ten years, an iterative process remains necessary to continue to understand the (over time developing) position, objectives, and interests of the actors in the IJssel Delta. Only in this way, trade-offs in flood risk mitigation strategies could be made from the perspective of different actors (Herman et al., 2015). It remains a fundamental assignment for the DC to maintain contact with the actors, so that the DC is continuously aware of how actors potentially perceive various common levers when addressing future developments along the IJssel river. Actors therewith continue to understand the problem, how the system works, and why the flood risk mitigation issue develops (Dewulf et al., 2005). Since Rijkswaterstaat has more frequent contact with the dyke rings and the provinces of Overijssel and Gelderland as a result of formal government relationships, it is crucial that the DC consults with Rijkswaterstaat periodically about (actor) developments in the IJssel Delta (Edelenbos et al., 2017).

4.2. Adaptivity required

With the periodic review, dynamic adaptive policies have officially been introduced by the DC in the IJssel Delta. As suggested by Haasnoot et al. (2013), the situation shall continuously be monitored by developing new scenarios and policy measures. Close monitoring of this development is necessary in order to be able to implement policy changes in a timely manner and with broad support. Haasnoot et al. (2013) therefore propose to introduce a control group (CG) to tackle this issue. This CG consists of a representative of the voting —therewith being an informal extension of the DC and Rijkswaterstaat —and is charged with the continuous development of dynamic adaptive plans. Jointly discussing the subject helps actors to maintain a common understanding of the problem with an understanding of everyone's position, avoiding future conflict in the political arena (Sarewitz, 2004). One of the major tasks of the DC as neutral broker, also in the future (Edelenbos et al., 2017).

4.3. A (un)fair approach?

The introduction of periodic reviews should lead to a fair approach. After all, it offers the opportunity to make iterative adjustments to the policy. Both if the policy insufficiently mitigates flood risks, and if the impact of measures has a disproportionate impact on some actors. But it also creates the opportunity to adjust the model. Not only can the model be improved by making adjustments, but also by making additions. Eventually, every model has its limitations and this periodic revision offers opportunities to revise, supplement, and improve the quality of the model (Saltelli et al., 2020). In fact, it is understood from the debates that some actors already would like to introduce a few additions to the model. For example, the environmental NGO proposes to include biodiversity. At the same time, Overijssel proposes to add parameters to cover agricultural production and Gelderland would like to add parameters that better reflect its regional economy in the model. As a neutral broker, the DC must be cautious about adding parameters. It feels paradoxical, but more parameters actually leads to more uncertainty. Every parameter has a certain uncertainty, adding too many parameters actually could lead to useless

models (Saltelli et al., 2020). This requires some balancing from the DC: The DC must ensure that the parameters adequately reflect the situation in the IJssel Delta, but prevent the model from becoming useless due to major additions.

4.4. Contested knowledge

However, the permanent revision has one major drawback, the knowledge will continue to be contested. At each revision, of course, all actors will try to put their position forward by improving their objectives as much as possible. Therewith, the situation in which certain actors will openly doubt the model, while others want to copy the model results literally, as described in Section 2.4, returns periodically. Ultimately, this could lead to a situation in the future where a great deal of research is done by actors trying to prevail their position during every review. As DC, this can be prevented by iteratively and adaptively revising the policy with the CG, as proposed by Haasnoot et al. (2013). By actively using the CG, a common understanding of the problem and model remains, which prevents conflicts (Sarewitz, 2004).

5

Reflection on current and future strategies

It was fundamental to the DC that all actors in the debates were actively heard and could contribute fairly to the final solution. After the first debate and after various policy proposals were received from the actors, the DC therefore examined with Rijkswaterstaat how their objectives and proposals could be integrated as effectively as possible in the policy proposal presented at the second debate. Because Gelderland and the transport NGO experienced the most impact in the eventual proposal, the DC consulted with them about how the effects on them could be reduced after publication of the proposal —but *ex ante* the —debate. This disadvantage was mainly due to the automatic alliance between the DC, Rijkswaterstaat, Overijssel, and the environmental NGO because of their active participation and input. While it was helpful to receive their information and proposals, the DC alliances were not supportive. Together with the DC, Gelderland and the transport NGO then made a number of compromise amendments, which were put forward by the two actors during the second debate at the DC's request. The DC actively consulted with its own analysts and the (analysts of the) dyke rings how it could support their province in developing these proposals, broadly supported by all dyke rings.

The debate was messy because Rijkswaterstaat, as chairman, was unable to properly justify a number of choices and assumptions. At the request of the DC, the meeting was suspended so that the DC could support Rijkswaterstaat in this justification. During the suspension, a strategy was also agreed to guarantee the transport NGO to preserve navigability of the IJssel river as much as possible. Overijssel would be promised a periodic review of ten years, in line with the DC's focus on adaptive and long-term policy (Haasnoot et al., 2013). In this manner, after the suspension, collectively, a combination of policy levers was adopted.

There was unanimous approval for adaptive policy in the IJssel Delta. Nevertheless, the DC finds that adaptivity is weakly guaranteed, despite the periodic review. It has not been formalised which objectives will be included and what this process will look like. It is also questionable whether Rijkswaterstaat's commitment to the transport NGO for navigability in RfR areas can be guaranteed. In retrospect, the DC would have liked to have been more strict about this during the second debate, preventing a risk of new conflicts arising from a policy review without any concrete guidelines on the revision. Now, there is a good chance that the transport and environmental NGOs will be disappointed during the next review, as their objectives have not been met sufficiently. On the one hand, navigability of the transport NGO cannot be guaranteed directly at RfR, on the other hand, there are no parameters in the model that measure environmental conservation.

To sum up, the DC is pleased that the actors have clearly opted for an adaptive and long-term policy in the IJssel Delta. With a combination of RfR, dyke heightening, and EWS, long-term policy has been approved rather solely focusing on short-term dyke increases (De Bruijn et al., 2015). In addition to the adaptive nature of RfR, the ten-yearly review must also enable policy adaptivity. The DC continues to proactively aim for cooperation with the other actors to maintain a common understanding of the problem, as discussed in Chapter 4.

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A

Actor analysis

In order to determine the position of the various actors in political decision-making in the IJssel Delta, an analysis is needed of their influence, interests and positions regarding flood risk management. To this end, their strategic objective is first examined, as well as their objective in this specific case and how they can exert influence.

A.1. Power and interests

Eleven actors can be distinguished in the IJssel Delta. Nine of them are (semi-) government institutions of different levels. At national level, the DC and Rijkswaterstaat —on behalf of the Ministry of I&W —are involved. Gelderland and Overijssel have provincial interests in the development of flood risk management policies in the IJssel Delta. Regionally, the dyke rings of Doesburg, Cortenoever, and Zutphen (all three located in Gelderland) and Gorssel and Deventer (both in Overijssel) have been mandated to protect the hinterland against flooding. However, they do not have the right to vote and are thus dependent on the province they belong to for their advocacy. Finally, the transport and environmental NGOs were included in the political decision-making process to defend their interests. The strategic and case-specific objectives and the power of the actors are summarised in Table A.1. The actor dependencies can accordingly be mapped in Figure A.1.

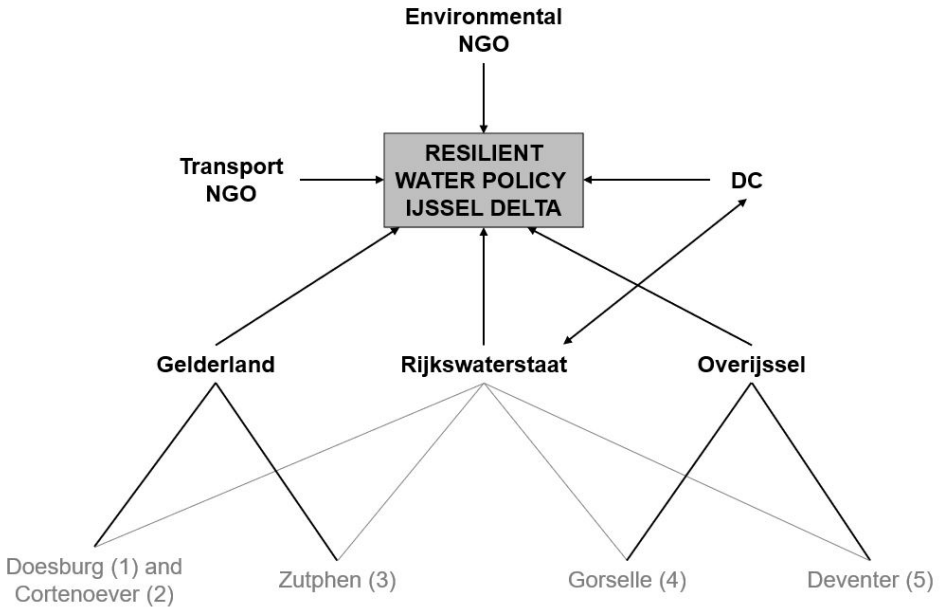

Figure A.1: Actor dependencies in the political decision-making process. Rijkswaterstaat, the DC, Gelderland, Overijssel, the transport and environmental NGO have voting rights, in line with is administrative relationship with Rijkswaterstaat, the DC is the single actor having a veto right. The five dyke rings are dependent on their provinces and Rijkswaterstaat (based on the debates and Edelenbos et al. (2017))

Table A.1: Power and interests of relevant actors (based on the debates and Edelenbos et al. (2017))

Actor	Strategic objective	IJssel objective	Power
Delta Commission	Resilient water strategies targeted at reducing flood risks while balancing the socio-economic consequences for the region, maintaining local livelihood, and improving the environment	Long-term (>100 years) adaptive water management plan to reduce flood risks in the IJssel Delta	Veto
Rijkswaterstaat	Maintaining and improving mobility, safety, and livelihood of regions in the Netherlands	Mitigating flood risks in the IJssel Delta, while maintaining water accessibility and improving biodiversity	Veto
Gelderland	Ensuring well-being and welfare of its citizens	Protection of citizens (and their materials) against flood risks, without economic damage to the region. Private actors must also contribute. The costs must be shared with Overijssel and interests of the dyke rings should be complied with	Vote
Overijssel	Ensuring well-being and welfare of its citizens	Protection of citizens (and their materials) against flood risks, without economic damage to the region, particularly with regard to their agricultural sector. The costs must be shared with Gelderland and interests of the dyke rings should be complied with	Vote
Transport NGO	Facilitating future growth of the water transport sector by guaranteeing their economic importance (on and around the Dutch rivers)	Preserving navigability of the IJssel river	Vote
Environmental NGO	Protecting and improving biodiversity in the Netherlands	Conserving and improving biodiversity in flood risk management of the IJssel river	Vote
Doesburg (DR1) and Cortenoever (DR2)	Protecting hinterland en citizens from flooding	Ensuring safety of citizens and protecting agriculture as economic driving force for farmers, employment, and the regional economy	None
Zutphen (DR3)	Protecting hinterland en citizens from flooding	Ensuring safety of citizens and economic welfare of the hinterland by reducing flood risks	None
Gorssel (DR4)	Protecting hinterland en citizens from flooding	Ensuring safety of citizens, protecting agriculture, and avoiding that fertile land is being used for water management	None
Deventer (DR5)	Protecting hinterland en citizens from flooding	Ensuring safety of citizens and economic welfare of the hinterland by reducing flood risks	None

The power and interest of the actors can be easily summarised in a Power-Interest (PI) grid in Figure A.2.

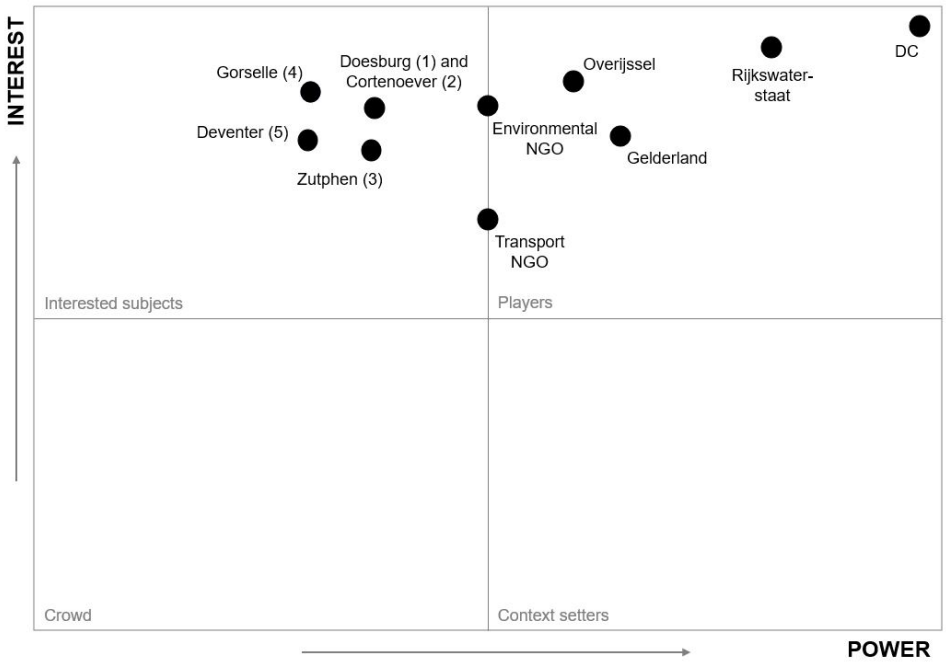

Figure A.2: Power-interest grid of the IJssel Delta (based on the debates and Edelenbos et al. (2017))

A.2. Political arena

Every actor with voting rights has his own demands and position in the political arena of the IJssel Delta. These are shown in Table A.2. It follows immediately that there are conflicting interests and positions. Gelderland, for example, wants as much RfR as possible in Overijssel, while Overijssel wants this the other way around. There is also a dispute between the dyke rings. The rural dykes, such as Doesburg (DR1), Cortenoever (DR3), and Gorssel (DR4), would rather raise dykes to protect their agriculture and certainly not give up fertile land for RfR. On the other hand, the urban dyke rings, Zutphen (DR3) and Deventer (DR5), prefer RfR to be applied in the outlying areas of the other dyke rings, so that they have to take fewer measures themselves in densely populated areas. The approach proposed by the rural dyke rings is supported by the transport NGO, which does not RfR as it negatively affects their navigability, while the environmental NGO is more on the side of Zutphen and Deventer in the context of more rural biodiversity. These different interests lead to conflicts. Notably, both Gelderland and Overijssel represent rural and urban dyke rings, which means that the provinces must first come to an internal compromise on flood risk mitigation strategies before entering the negotiating table with other actors. It is the task of the DC to take them all into account and arrive accordingly at a broad supported and resilient strategy. For each actor, a mitigation strategy has been proposed in Table A.2 for the DC during the negotiations.

Table A.2: Policy positions of voting actors (based on debate and Edelenbos et al., 2017)

Actor	Policy demands	Position	Mitigation strategy
Delta Commission	Long-term, adaptive, and resilient water strategy (>100 years) and minimising casualties	Stimulate RfR and avoid dyke heightening	NaN
Rijkswaterstaat	Long-term and broadly supported water policy, minimising casualties and minimal costs	Effective water policy	A broad range of policy levers is considered for resilient water policies
Gelderland	No RfR in Doesburg (DR1) and Zutphen (DR3), particularly not in DR3 because of its financial damage to the Zutphen harbour. Minimise impacts of water policy on Zutphen as major city in Gelderland	Avoid RfR in Gelderland as much as possible	A combination of RfR and dyke heightening (not around Zutphen (DR3)) to balance economic interests of Gelderland and major impact on Overijssel
Overijssel	Lower EWS to reduce evacuation costs, compensate fertile land-use that cannot be used for agriculture any longer, and minimise dyke heightening in Gelderland (*i.e.,* to prevent more RfR in Overijssel)	RfR in Gelderland as much as possible	A combination of RfR (also in Gelderland) and dyke heightening (also in parts of Overijssel to protect fertile agricultural land) to balance economic interests of Gelderland and impact on downstream Overijssel
Transport NGO	Avoid RfR because it reduces navigability, particular around Doesburg (DR1)	Avoid RfR as much as possible and elevate dykes	Raising dykes is considered as part of RfR and Zutphen (DR3) will be protected by dyke heightening
Environmental NGO	Introduce RfR rather than dyke heightening for improved biodiversity along the IJssel	Maximise RfR	Conserving biodiversity will be taken into account in designing policies