COLLABORATIVE GOVERNANCE CASE DATABASE

Purpose of database

This database provides a collective repository for collaborative governance case studies from around the world. The mission of the repository is to foster rich but systematic medium and large-N analysis of the conditions, processes, and outcomes of collaborative governance. Researchers who contribute a case to the database may use the entire dataset for their own research purposes. Moreover, contributed cases will be cited by other researchers in their analyses.

Key definitions and scope conditions

- *All types of collaborative governance cases from all policy domains are welcome*: Cases may involve only government entities, only non-government entities, or a mix of the two. Cases may represent successes or failures or something in between.
- *Definition of collaboration:* When two or more actors aim to constructively manage their differences in order to produce joint solutions to common challenges.
- *Definition of governance:* The arrangements and processes through which interdependent but operationally autonomous actors aim to formulate and achieve common goals through collective decision making.
- *Definition of collaborative governance:* A collective decision-making process based on more or less institutionalized interactions between two or more actors that aims to establish common ground for joint problem solving and value creation.
- *Definition of a case:* A set of actors collaborating on a shared issue over a specified time period within a given geographical space. The database allows contributors to chart the evolution of a collaboration over time. However, if the set of actors, the focal issue, or the geographical scope change drastically, the data may also be entered as separate but related cases.

Instructions to contributors

The survey consists of eight thematic sections, each starting with a series of closed questions and ending with an open text question that allows you to add your qualitative insights. Please provide as much information as you feel confident in providing on the basis of your knowledge of the case.. You can select 'Don't Know' if you do not have the answer. A confidence measure at the end of each section asks you to make a self-assessment of your level of confidence in the validity and reliability of the data you have entered. The survey takes about four hours to complete one case.

Before your survey is accepted into the database, a peer researcher will review your case description to make sure it is clear and consistent. You will also be asked to check at least one case submitted by a fellow contributor. Please contact the database editors at s.c.douglas@uu.nl to discuss any queries you may have about the database and about potential case contributions.

Content of survey

1. General case information

1. Please provide a unique name for the case you are describing.

Grebbedijk dike reinforcement project

2. Please provide your name, institutional affiliation, and email address.

Case author(s)	Emma Avoyan
Institution / University	Radboud University
Email address first author	emma.avoyan@gmail.com

3. Please specify the start and termination date of this collaboration.

Start of collaboration		End of collaboration	
Select	2016	Select	Ongoing

4. Please specify the period of the collaboration covered by your research data. Note: This is not about when you collected the data, but what period your data covers.

Start of period observed		End of period observed	
September	2016	September	2020

5. Please specify the type of data collection methods you used.

Methods	Used
Documents	✔
Interviews	✔
Observations Social network data	
Surveys	✔
Other, namely:	

6. Please provide up to three weblinks to published reports, articles, or books that document this case (e.g. a peer-reviewed article or an evaluation report).

The paper is with the Journal of Environmental Planning and Policy after minor revisions. The web-link coming soon.

7. At which jurisdictional level did the collaboration occur? Choose more than one if necessary.

Level of collaboration	Start of period observed	Middle of period observed	End of period observed
Local	✔	✔	✔
Regional	✔	✔	✔
National			
International (across borders)			
Supranational (UN, EU, etc.)			
Multi-level (collaboration between levels)	✔	✔	✔

8. In which country or region was the case situated? Pick more than one if necessary

Europe	Select	Netherlands	Select	Select

2. Main case characteristics

9. What was the policy domain of the case? Choose more than one if required.

☐Agriculture	☒Environment & Climate	☐Social/Employment Policy
☐Culture/Leisure	☒Infrastructure & Planning	☐Technology & Transport
☐Economy & Trade	☐Public Health	☐ Other, namely …….
☐Education	☐Security & Public Safety	

10. To what extent was the collaboration driven by any of the following ambitions? (1 = not at all an ambition, 5 = this was the core ambition)

Ambitions of collaboration	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Develop a plan or policy for a shared problem or societal issue	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐
Develop a regulatory framework for a policy domain or industry	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐
Create innovative solutions in existing policies, programs, practices	☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐
Increase efficiency by lowering costs or boosting benefits	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐
Increase effectiveness by increasing impact of interventions	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐
Increase legitimacy and support among different constituents	☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	●	☐	☐	☐
Organize crisis and emergency planning, response and/or recovery	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐
Create holding environment to contain conflict among stakeholders	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐
Other, namely:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

11. To what extent did the collaboration aim to include any of the following forms of collaborative governance? (1 = not at all an aim, 5 = this was the core aim)

Purpose of collaboration	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Co-initiation: Jointly identify required policies, services, or regulation	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐
Co-develop: Jointly create and arrange policies, services, or regulation	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐
Co-production: Implement policies, deliver services, or provide regulation	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐
Co-assessment: Jointly monitor and evaluate impact of policies, services, or regulation	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐	☐	☐	●	☐	☐

12. **How confident do you feel the answers you provided to the questions in this section are valid, reliable, and rooted in data and observation?**

Highly confident

13. **Please describe in max. 600 words the (a) societal challenges and organizational issues the collaboration sought to address, (b) the stated ambitions and desired outputs and outcomes, (c) how these challenges, issues and ambitions evolved during the period observed.**

a.This multi-actor and multi-sector collaboration is one of the projects of Dutch flood protection program and was set up to explore and adopt a reinforcement plan (the output of collaboration) for the dike called Grebbedijk in the Netherlands. In this project, my study focus was its four-year collaboration-intensive exploration phase finelised n 2020. During this phase, various governmental and non-governmental actors and organizations worked jointly to explore and identify opportunities for linking flood safety with environmental objectives and spatial solutions on and around the dike.

Although the dike stretch is short, it is one of the most strategically important dikes in the country in terms of its impact on the hinterland. A dike breach may affect an extensive area with water levels reaching up to 3m and causing more than €10 billion of economic damage . Moreover, the extraction of clay from local floodplains resulted in new riverine nature and wetlands, which are now key nature conservation areas in the Netherlands under the European Natura 2000 policies. Consequently, any intervention in the area, including improvement of flood protection infrastructure, follows the logic of building within nature, that is integrating the new infrastructure into the environment.

b. Since the Grebbedijk does not meet the new safety standards adopted in the Netherlands, it needs to be reinforced almost over the entire length. For this reason, the project was initiated in 2016. Next to the main goal of delivering flood safety, participating authorities together with the residents and interested parties have set an intention of exploring synergies and smart combinations of Grebbedijk's main goal with additional ambitions in the scope of nature, recreation, spatial quality and sustainability.

c. I constructed a chronology of key events and decisions leading to the final plan for Grebbedijk's reinforcement:

1.Developing six possible alternatives (start stage: begin. 2016 - begin. 2018) - during this stage there was a wide range of possible options, objectives, ambitions discussed. These ideas were then integrated into five building block reports on water safety, nature, infrastructure and economy, recreation and landscape and sustainability. Based on these building blocks, six spatially coherent combinations of water safety with additional functions have been developed by collaborative parties (in consultation with concerned stakeholders).

2. Optimizing six possible alternatives into three promising alternatives (assessment stage: begin. 2018 – mid. 2019) - extensive assessments (environmental impact assessment (EIA), cost effectiveness analysis, technical studies etc.) of technical and administrative visibility of all six possible solutions, including for optimal mix of functions, were carried out. Although it was potentially foreseen that number of building blocks could be dropped out, this did not happen in practice. Instead of choosing three options out of six, a conscious choice was made to incorporate and integrate all six possible options into new three alternatives

3. Adopting the preferred alternative- the plan (final decision stage: mid. 2019- mid. 2020). 15 out of 20 proposed addition functions were coupled with flood safety objective and may be considered as an integrative plan.

3. Starting conditions

14. To what extent did the configuration of actors that made up the core of the collaborative process have a pre-history of mutual engagement? (1 = Very little history, 5 = Very extensive history)

Score					Don't know
1	2	3	4	5	
☐	☐	☐	●	☐	☐

15. To what extent was there trust between core participants at the start of the collaboration? (1 = Very low trust 5 = Very high trust)

Score					Don't know
1	2	3	4	5	
☐	●	☐	☐	☐	☐

16. How was the collaboration first initiated? Please select one option.

Externally directed by law or authority

17. To what extent did the participants have more or less equal levels of resources, (e.g. knowledge, influence, skills) to bring to the collaborative process? (1 = Highly unequal, 5 = Highly equal)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐

18. To what extent were there incentives to collaborate for the participants, e.g. financial gain or increased influence? (1 = Very little incentives, 5 = Very strong incentives)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐

19. To what extent did the participants feel mutually dependent on each other for fulfilling their ambitions? (1 = Very low sense of interdependence, 5 = Very high sense of interdependence)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	●	☐	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐

20. How confident do you feel the answers you provided to the questions in this section are valid, reliable, and rooted in data and observation?

Mostly confident

21. Please describe in max. 600 words the (a) the prehistory and past interactions of participants, (b) how the collaboration was initiated, (c) the sense of interdependence between participants and the incentives to collaborate, (d) any significant changes over time in the period observed.

a. Since this was a multi-level (central government, provinces, municipalities), multi-sector collaboration, it is hard to judge about prehistory or past interactions of participants other than they existed under different initiatives. However, some of my interviewees mentioned the prehistory of conflicts among some of the collaborating parties. For example, some highlighted the long standing organizational competitiveness and even conflicts between the Gelderland province, the municipality of Wageningen or Vallei en Veluwe water authority (e.g. an ongoing tension over a new road construction in the city). Competitiveness arises also over the ownership of collaborative effort when two large regional public authorities, the province and water authority, struggle to share the leading role in the project. Such tensions affect to some extent the organizational and personal relationships in collaborative arrangements, but I did not find any evidence that within the Grebbedijk this was an issue, largely because the project manager was able to deal with most of conflicts before they would become an issue.
b. This is a governmentally mandated collaboration. A new policy was adopted: the new safety standards in the Netherlands, and large number of projects were set up in order to implement this policy. Grebbedijk was one of them.
c. There was a high sense of interdependency, as the water authority saw the opportunity for creating synergies with other parties, which was in fact the main incentive to collaborate for almost all involved.
d. At the beginning the expectations were very high. The parties were convinced that many, if not all additional ambitions would be granted in the final plan. However, during the assessment stage it became clear not everything is technically visible, or it was too expensive and the proposing party would have insufficient budget for that coupling option, or there would be regulatory obstacles (e.g. nature protection area). This is the reason why towards the last stage of exploration phase some parties were less engaged (but still formally involved) in the processes knowing their goals would not be accomplished as they would have expected that.

4. Institutional design

22. How many (institutional/group) actors were involved in the collaborative process?

Start of period observed	Middle of period observed	End of period observed	Don't know
11-15	11-15	11-15	☐

23. What different types of actors took part in the collaboration. Please select the backgrounds of the different participants.

Background of participants	Start of period observed	Middle of period observed	End of period observed	Don't know
Political organizations / politicians	☐	☐	☐	☐
Public organizations / civil servants	☑	☑	☑	☐
Private, for-profit organizations	☑	☑	☑	☐
Private, non-profit organizations	☑	☑	☑	☐
Citizens / informal citizen groups	☑	☑	☑	☐

24. To what extent were the procedural ground rules for the collaboration clearly explicated by and for the participants? (1 = Very little articulation of ground rules, 5 = Very detailed articulation)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐

25. To what extent were the procedural ground rules observed and applied? (1 = Very rarely applied, 5 = Almost always applied ground rules)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐

26. To what extent was the collaboration inclusive? (1 = Very few of the relevant and affected actors included, 5 = Almost all of the relevant and affected actors included)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐

27. To what extent were the decision-making processes in the key collaborative forums transparent? (1 = Rarely clear to participants how decisions were taken, 5 = Almost always clear)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐

28. How confident do you feel the answers you provided to the questions in this section are valid, reliable, and rooted in data and observation?

Highly confident

29. Please describe in max 600 words (a) the ground rules of the collaboration, (b) the inclusiveness of the collaborative forum(s), (c) the transparency of decision making within the collaborative forum(s), (d) any significant changes in the institutional architecture of collaboration over time

a. As it is with governmentally mandated collaborations/projects of Dutch flood protection program, most of the procedural arrangements were designed for producing a joint plan. For dike reinforcement projects, Dutch flood protection program follows general guidelines on phasing infrastructure projects into (pre)exploration, plan elaboration and implementation. Although the implementation logic of Grebbedijk was pre-determined, the project team together with collaborating parties had the flexibility to develop a detailed Action Plan on how exactly to execute the exploration phase. The Action Plan as a central procedural document outlines the scope of project membership, objectives and responsibilities of those involved, communication and participation strategies, description of the steps within the exploration phase, including project management and decision-making procedures. It was developed in consultation with and approved by the authorities.

b. My interview and survey data suggests that this collaboration was highly inclusive.
Through social media, local news channels and the official webpage of the project with a sign-up option anybody interested was invited to contribute ideas about the future look of the dike and the surrounding area. A collaborative platform called Dijkdenkers (dike thinkers in English) was launched for the stakeholders. Over 150 interested people from the area (residents, private companies, farmers, nature organizations and water sports associations) participated in several workshops and sessions. Also there was an overall agreement that formal decision-making parties of the collaboration included all those who would potentially have a concern or interest with the design and implementation of Grebbedijk project.

c. Judging from the survey data, the decision-making process of Grebbedijk was fairly transparent. There were two questions regarding this:
1- To what extent do you agree that the decision-making process in Grebbedijk is characterized by a high degree of transparency? 10 out 12 respondents answered they fully or mostly agree with this statement.
2 Do you think the development of Grebbedijk's preferred alternative (the Plan) was a transparent process? (binary question) 11 out of 12 answered YES .

d. No major changes could be observed. Only most of the efforts at the beginning of the collaboration went into setting-up/ arranging the ground rules, while leaving room for adapting these rules slightly later in the process.

5. Leadership

30. Characterize the locus of leadership roles in the collaborative process

Locus of leadership	Start of period observed	Middle of period observed	End of period observed	Don't know
One lead actor	✔	✔	✔	
A few lead actors				
Shared collective among all actors				

31. What were the backgrounds of those exercising leadership? Choose more than one if necessary.

Background of participants	Start of period observed	Middle of period observed	End of period observed	Don't know
Political organizations / politicians				
Public organizations / civil servants	✔	✔	✔	
Private, for-profit organizations				
Private non-profit organizations				
Citizens / informal citizen groups				

32. To what extent was the leadership effective in convening / bringing together the relevant and affected actors (1 = Highly ineffective, 5 = Highly effective)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐

33. To what extent was the leadership effective in guarding the focus and integrity of the collaborative process intended in this case? (1 = Highly ineffective, 5 = Highly effective)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐

34. To what extent was the leadership effective in resolving or mitigating conflicts between actors? (1 = Highly ineffective, 5 = Highly effective)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐

35. To what extent was the leadership effective in creating and realizing concrete opportunities for creative problem-solving resolving? (1 = Highly ineffective, 5 = Highly effective)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐

36. How confident do you feel the answers you provided to the questions in this section are valid, reliable, and rooted in data and observation?

Highly confident

37. Please describe in max. 600 words the (a) the form and style of leadership within the collaboration, (b) the dynamics and impact of leadership on the collaborative process (c) changes in the leadership dynamics in the period observed.

a. The leadership was also predetermined in the Grebbedijk through the role of project manager. The water authority (as lead actor) anticipating the complexity of interests, strategically recruited a professional having experience in spatial and environmental planning as opposed to many Dutch flood protection program's projects led by civil engineers.
b. The role of the project manager in connecting parties, mediating risks or conflicts as well as steering the process towards integrative final plan was decisive. His skillset as well as connective capacity was traced in the meeting minutes and interview data. Furthermore, he was responsive to adapt to contextual dynamics of the project. It was his recommendation to pass on one of his responsibilities and appoint an independent chair for the stakeholder platform in order to avoid conflict of interests. The decision was also circumstantial as after synthesizing stakeholder's insights and prospection about the future of the dike, facilitating further knowledge development for transitioning towards the project's assessment stage was prioritized.
c. Towards the end of observed period, there was a transition of leadership from one project manager to the other, indicating the capacity of collaboration to adapt to contextual dynamics of the project. It is common in the Netherlands, to employ managers with certain qualifications depending on the phase of the project (e.g. a planner for exploration phase, and engineer for plan elaboration phase). Eventually, the new project manager assembled the collaborative efforts of the exploration phase and brought the project to the follow up phase: planning.

6. Collaborative process

38. To what extent did the participants engage in face-to-face dialogue through holding regular meetings with good attendance? (1 = Very infrequently, 5 = Very frequently)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐

39. To what extent was the collaborative process concentrated in a single forum/arena/group? (1 = Very low concentration; 5 = Very high centralization in a single forum/arena/group)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐

40. To what extent did the participants in the collaborative process invest in joint fact finding? (1 = Very little investment, 5 = Very high investment)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐

41. To what extent did the participants in the collaborative process invest in knowledge sharing? (1 = Very little investment, 5 = Very high investments)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐

42. To what extent did the collaborative process focus on the alignment of interests and values among all actors? (1 = Very weak focus, 5 = Very strong focus)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐

43. To what extent did the collaborative process focus on joint problem-solving (e.g. joint problem framing, co-designing solutions)? (1 = Very weak focus, 5 = Very strong focus)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐

44. To what extent did the collaborative process explicitly focus on producing tangible intermediate outputs (quick wins)? (1 = Very weak focus, 5 = Very strong focus)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	●	☐	☐	☐	☐

45. To what extent did the collaborative process explicitly focus on producing tangible strategic outcomes? (1 = Very weak focus, 5 = Very strong focus)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	●	☐	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐

46. How confident do you feel the answers you provided to the questions in this section are valid, reliable, and rooted in data and observation?

Highly confident

47. Please describe in max. 600 words (a) the collaborative process in terms of how the actors interacted with each other, (b) how they formulated and achieved shared outcomes, (c) how the process changed over the period observed.

a. The collaborative process was very productive in terms of providing sufficient opportunities for the parties to interact with each other and identify shared interests and form corresponding interest groups (e.g. environmental, water sports, recreation). At least 12 types of gatherings (e.g. information evenings, design workshops, Dijkdenker's meetings, kitchen-table meetings,thematic building block sessions etc.) for participants to raise their individual, organizational and shared interests concerning the Plan were counted. The meetings stimulated dialog on clarification of shared meanings and concepts of common interest: "integrality" as describing the boundaries of area development and integration of various area ambitions or "ambition" illustrating the interests participants bring to the project and their willingness contribute financially. Similarly, other concepts that would concern the joint efforts of participants (e.g. sustainability, circularity, area development) were discussed and clarified. The actors were also able to come up with intermediate agreements on joint development of the preferred alternative. This highlights the consensus on generating an integrative/ shared output (plan).
b. The main output of collaboration, the preferred alternative (Plan) has been formulated through so called funneling procedure (basis for defining the stages of collaboration in my study) involving all the actors (starting with number of options, working out those, assessing visibilities, cutting down the number of possible options, and choosing the most optimal one at the end).
c. Nearing the end of the exploration phase and finalization of the Plan, the intensity of collaborative process diminished. The diversity of group meetings declined. 6 out of 12 types of meetings were maintained with decreased frequency. Most of the individual consultations with all actors intensified during the assessment stage were now conducted with the authorities only. The main purpose of these consultations was to "fine tune" the details (e.g. financial) of the Plan. Consequently, deliberation mechanisms employed in the previous stages (e.g. thematic working groups) were largely not necessary as the group meetings had an objective of presenting the draft Plan to the audiences. Overall, the efforts of earlier stages paid off and the draft Plan was approved at last. Moreover, the declined intensity of collaborative process suggests that the draft Plan was not overly contested while the offered mechanisms of engagement and deliberation could be largely used.

7. Accountability

48. To what extent were explicit joint goals articulated through statements of intent, memoranda, strategic plans, etc.? (1 = Very little explication of goals; 5 = Very highly explicated goals)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐

49. How were the joint goals operationalized? (1 = Very little operationalization of goals, 5 = Very highly operationalized goals)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐

50. To what extent was there active monitoring of goal attainment? (1 = Very little monitoring of goal achievement, 5 = Very active monitoring of goal achievement)

Start of period observed					Middle of period observed					End of period observed					Don't know
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐

51. To what extent did the participants render account of the collaboration to the following actors? (1 = Very little account-giving, 5 = Very active account-giving)

Actors	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Elected politicians	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑
Oversight bodies (e.g. auditors, courts)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑
Civil society organizations	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐
Affected and/or concerned citizens	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐

52. To what extent did the following external actors have influence over collaboration (1 = Very little influence, 5 = Very large influence)

Actors	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Elected politicians	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑
Oversight bodies (e.g. auditors, courts)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑
Civil society organizations	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐
Affected and/or concerned citizens	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐

53. How confident do you feel the answers you provided to the questions in this section are valid, reliable, and rooted in data and observation?

Mostly confident

54. Please describe in max. 600 words (a) how the goals of the collaboration were formulated and monitored, (b) how participants, elected officials, oversight bodies, and citizens held the collaboration to account, (c) how these dynamics changed over the period observed.

The major goal of collaboration,that is to ensure flood safety, was determined in accordance with the policy of new flood safety standards in the Netherlands.
The policy and legal frameworks for new flood safety standards in the Netherlands point out also the necessity of cross-sector collaboration between flood safety, spatial planning and/or other sectors in achieving the desired level of protection. Where possible, the government facilitates integrated area development comprising of a range of environmental and spatial functions.
Therefore, for the collaboration of Grebbedijk project the goal was to deliver flood safety that also links and integrates with other socio-economic, spatial and environmental functions.
The monitoring was conducted by the project initiator and lead actor: the Vallei en Veluwe water authority.
The collaboration was primarily accountable to the management of the Vallei en Veluwe water authority and Dutch flood protection program (setting ordinary project management deadlines, deliverables, decision making rules).

8. Outputs and outcomes of collaboration

55. To what extent did the collaboration produce the following outputs or outcomes? (1 = Very low, 5 = Very high). Note: This question mirrors the ambitions formulated in question 10.

Produced outputs and outcomes	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Develop a plan or policy for a shared problem or societal issue	☐	☐	●	☐	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐
Develop a regulatory framework for a policy domain or industry	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐	☐	☐	●	☐	☐
Create innovative solutions in existing policies, programs, practices	☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐
Increase efficiency by lowering costs or boosting benefits	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐
Increase effectiveness by increasing impact of interventions	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	●	☐
Increase legitimacy and support among different constituents	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	●	☐	☐	☐
Organize crisis and emergency planning, response and/or recovery	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐
Create holding environment to contain conflict among stakeholders	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐
Other, namely:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

56. To what extent did the collaboration use any of the following forms of collaborative governance? (1 = Very low extent, 5 = Very high extent) NB: This question mirrors question 11.

Realized collaboration	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Co-initiation: Jointly identify required policies, services, or regulations	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐
Co-develop: Jointly create and arrange policies, services, or regulation	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐
Co-production: Implement policies, deliver services, or provide regulations	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐
Co-assessment: Jointly monitor and evaluate impact of policies, services, or regulations	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐	☐	●	☐	☐	☐

57. To what extent did the collaboration produce innovations, such as novel solutions, systems, and processes? (1 = Very little innovation, 5 = Very highly innovative).

Type of innovation	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Develop novel products or services for clients and partners	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐
Develop novel production processes for producing products or services	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐
Novel ways of coordinating between roles and/or services of participants	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐

58. To what extent did the collaboration create outcomes beyond its stated aims? (1 = Very little outcomes going beyond stated aims, 5 = Very high degree of outcomes beyond stated aims)

Type of innovation	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Built support and legitimacy for investing in future collaborations	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑
Built joint operational capacity for solving future problems and challenges	☐	☐	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐
Created positive unintended societal consequences	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐
Created negative unintended societal consequences	●	☐	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐

59. To what extent did the collaboration achieve support among the different constituents of the collaboration? (1 = Very little support, 5 = Very extensive support)

Constituents	Start of period observed					Middle of period observed					End of period observed					Don't know
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Participants in the collaboration	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐	☐	☐	☐	●	☐
Elected politicians	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑
Oversight bodies (e.g. auditors, courts)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑
Civil society organizations	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐
Affected and/or concerned citizens	☐	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐	●	☐	☐	☐

60. How confident do you feel the answers you provided to the questions in this section are valid, reliable, and rooted in data and observation?

Mostly confident

61. Please describe in max. 600 words (a) the output of the collaboration in terms of results produced by the collaborative governance process, (b) the outcomes in terms of the impact on problem solving, goal achievement and legitimacy, taking into account any unintended consequences, (c) the changes to collective outputs and social outcomes over time.

a. The major output of Grebbedijk collaboration (importantly the exploration phase of this project) was its preferred alternative: the plan on how the reinforcement of the dike should be executed. The plan addressed the project's goal of assuring water safety and additionally incorporating 15 out of 20 additional ambitions (e.g. offering extra space for pedestrians and cyclists through the stepped profile of the dike, constructing small lake/pond for recreational use, building basic facilities for the future use of thermal energy from surface water, restoring the cultural-historical monument "Hoornwerk" etc.) proposed by the parties.
b. Since the plan has not been implemented yet, it is difficult to judge about the impacts. It is anticipated that the technical solution arranged with this plan will ensure flood safety and the people (residents living behind the dike) affected directly by the reinforcement/reconstruction works are mostly happy with the solution. However, with many other expected impacts (improved spatial quality, enhanced environmental conditions, recreational opportunities etc.) expectations are less clear. When the project is finalized in couple of years, it is more reasonable to observe and measure the impacts.