

Marker Wadden

Creating an innovative Dutch showcase in the blue heart of the Netherlands



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1. Introduction:

In the year 1976 the Markermeer was split off from the IJsselmeer in correlation to the construction of the Houtribdijk dam, which is located between Enkhuizen and Lelystad, see Figure 1. Before dammed off in 1932, it used to be part of Zuiderzee and has by now lost most of its natural shores in order to the land reclamation and steps for the flood protection of the Netherlands (Natuurmonumenten, 2015).

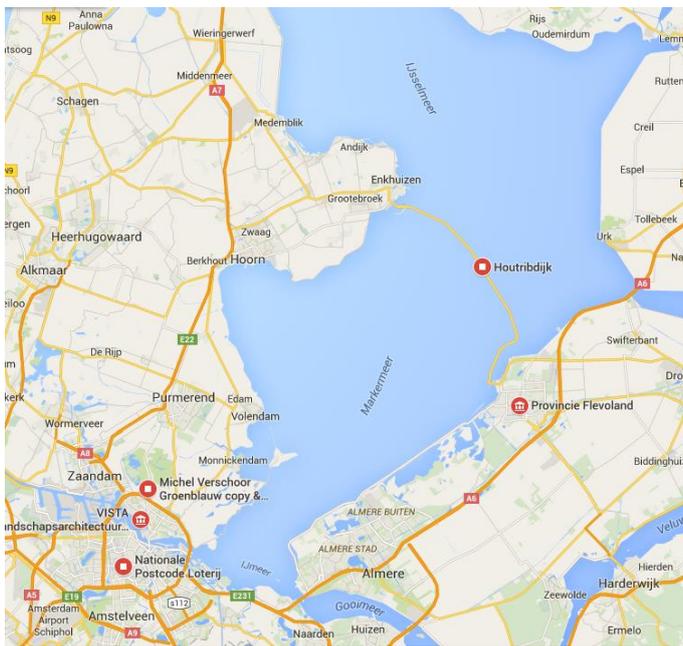


Figure 1. Position of the Markermeer on Google Maps

In order to restore one of the largest freshwater lakes in western Europe and therefore positively influence the ecology of the area, it was decided to construct islands in the Markermeer by using the silt sediments, which accumulated over the last decades in this area (Natuurmonumenten, 2015). It shall increase the abundance and the diversity of water plants and animals, but also have a positive influence in the attractiveness of the Markermeer for water sports and nature lovers (Natuurmonumenten,2015).

Comment [CD1]: what

The project was initiated by Natuurmonumenten and Rijkswaterstaat, in order to help the recovery of the ecology and also meet the preconditions of the Natura 2000, an EU policy for nature and biodiversity (Natuurmonumenten, 2015; van Gogh, 2012; Natura 2000). As the Markermeer area is also covered by the WFD (Water Framework Directive) it additionally has to meet the requirements

of the WFD as well as the Dutch Water act, in which the WFD is incorporated (van Gogh, 2012; WFD, 2015).

The aim of this paper is to examine the policies of the Marker Wadden project in order to reveal weaknesses and shortcomings by using the water management and governance assessment method (Figure 2) of van Rijswick et al., 2014. This assessment method was developed to “assess the main gaps in the (1) knowledge base, (2) weaknesses in the organization process, and (3) problems that may arise when implementing the agreed service level” (van Rijswick et al., 2014).

The sources were all found on the Internet. On google scholar only three peer reviewed papers were available. Among the search words used were: Marker Wadden, natura 2000, water framework directive, monitoring, handhaving, conflict, natuurmonumenten, gemeente lelystad, etc. Also an email for information was send to info@natuurmonumenten.nl. No reply was given.

Comment [CD2]: capitals

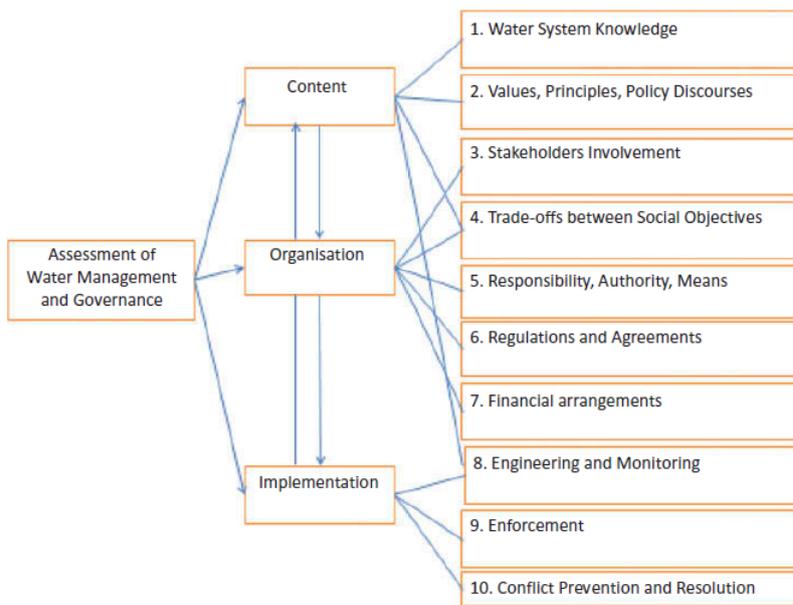


Figure 2: The ten building blocks for sustainable water governance (van Rijswick et al., 2014)

2. Water System Knowledge

Assessment criteria: Is there sufficient knowledge of the existing water system of the Marker Wadden in order to deliver the required service level of societal functions? If not, what are the gaps; is sufficient knowledge available to assess the impact on the water system because of changes in environment and societal functions? (van Rijswijk et al., 2014)

The Markermeer, which was part of the IJsselmeer but since 1976 not anymore by being separated by the Houtribdijk, is an area of about 700 km². The water depth is quite shallow for such a large area, it is between 2 and 4 meters (Gogh, 2013). The mean depth is 3,9 meters. The ecological system of the Markermeer is immature and has been seeing a downward trend since the Markermeer was separated by the IJsselmeer. The incoming water flows for the Markermeer are water from the Gooi- and Eemmeer, the IJsselmeer and precipitation. The outgoing flows are evaporation and discharge via the sluices in the Houtribdijk to the IJsselmeer and the Noordzeekanaal. The water temperature of the lake is between 2,9 and 21.1 degrees Celsius (Deltaprogramma, 2011). That shows that the lake doesn't freeze in winter which is an important factor in habitat opportunities for aquatic life and birds. Because of a number of important factors, the area Markermeer-IJmeer has been appointed an Natura 2000 area.

The problem of silt

Silt in the Markermeer is the basis of all the problems concerning water quality. Silt is inorganic suspended matter and 70% of the total suspended solids (TSS) is inorganic silt (Noordhuis, 2010). After separation of the Markermeer from the IJsselmeer in 1976, the ecological quality began to show a downward trend. This was because there was no more tidal action and silt was trapped in this area. Due to wave action caused by wind, the silt that is settled on the bottom is re-suspended and gives high concentrations of silt in the water. The high levels of silt in the water cause less oxygen in the water which supports life. Therefore the amount of living organisms, aquatic plants and animals have been reduced (Gogh, 2013).

Sufficient knowledge?

There was already quite detailed information of the water ecosystem of the Markermeer but for this project more research is and will be done. The following figure gives an overview of all the research partners of the project.

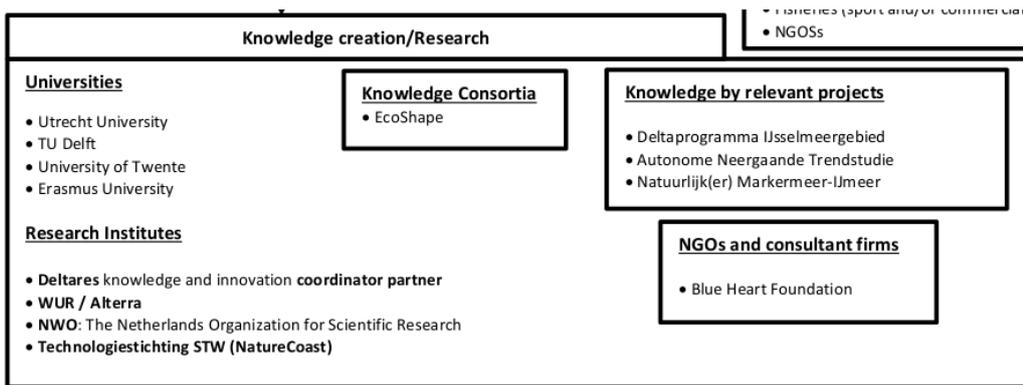


Figure 3: knowledge organizations for the Marker Wadden project, taken from Chatzidimopoulou, 2014.

Also thorough research was carried out for the environmental impact assessment. We conclude that there must be enough knowledge to carry out this project to fulfill the required societal functions.

3. Values and Principles

Assessment criteria: Is there sufficient knowledge of shared or conflicting values, viewpoints and principles (represented by different policy discourse coalitions) for water issues and their consequences for facing water management issues? (van Rijswick et al., 2014)

The Netherlands have a long history in water management, already for more than 400 years. Dutch water knowledge is famous in all of the world. To have a view on the values on this project, cultural and historical aspects have to be taken into account. The Markermeer area where this project takes place has had a history of some conflicting values. Conflicting values in the Netherlands are often solved according to the poldermodel, where all involved stakeholders and policymakers set around the table try to come to consensus-based policy. So it has been for the Markermeer. After the Afsluitdijk, the Flevopolder and the Noordoostpolder were created according the plan Lely, the Markermeer was initially also to become dry land. The population was against this plan for several reasons and finally the politicians agreed that it wouldn't have been a good idea. Reasons where ecological value and unwanted groundwater changes in the province of Noord-Holland. In 2003 after the right wing political party LPF included the inpoldering of the Markermeer, for boosting the economy, it was decided that no inpoldering would be allowed in the Markermeer.

With this short history of conflicting values about the area the current viewpoints of the different stakeholders are more the same. The answer whether the viewpoints of the different policy discourse coalitions, or just to call them stakeholders, are similar or different is not difficult for this project. There is acknowledgment between all the different stakeholders that the issue of silt accumulation is the main problem that has to be solved.

The IJsselmeervereniging is against the plan of the Marker wadden, about 2/3 of the members voted against the plan (IJsselmeervereniging, 2013). They propose a more permeable Houtribdijk for a free flow of aquatic animals and plants and especially silt. How they tried to fight the allocation plan was not found.

Overall, values and principles are shared for the Marker Wadden project with all stakeholders having values that lead towards solutions.

Comment [CD3]: is this the criterion?

4. Stakeholders Involvement

Assessment criteria: Are all relevant stakeholders involved? Are their interests, concerns and values sufficiently balanced considered in the problem analysis, solution search process and decision – making? (van Rijswick et al., 2014)

On the first phase on project Marker Wadden, multiple businesses have been collaborating together to make the project true. It has involved both business and government organizations as well as non-governmental organizations. Since 2013, Rijkswaterstaat and Natuurmonumenten have had a close collaboration concerning Marker Wadden project. In 2014, these two organizations signed an official collaborative agreement. (Natuurmonumenten, 2015)

Natuurmonumenten had two missions on Marker Wadden project: fund raising and managing stakeholders. Technical and procedural aspects of the project were handed to Royal HaskoningDHV. Natuurmonumenten worked closely with both Royal HaskoningDHV and Ministry of Infrastructure and Environment to decide on a contractor for building and constructing the first phase of Marker Wadden. (Rijkswaterstaat. Natuurmonumenten. Royal HaskoningDHV, 2015)

Stakeholders on the Marker Wadden project are listed below:

- Local municipalities
- Local governments
- Water Boards
- Elected Officials
- Dredging companies: Van Oord, Boskalis
- National and International media
- Recreational users of the Markermeer area
- Fisheries
- Non-governmental Organisations

(Chatzidimopoulou, 2014)

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In 2013, the research for the interests and stakes of different parties on the Marker Wadden case began. It was found that there are both technical stakeholders (dredging companies) and recreational users (tourists, local residents) were affected by this project. The monitoring program was planned to be started in 2015, so during these two years, there has been enough time to take the interests and concerns of different stakeholders into consideration. Through this kind of collaboration, everyone participating on and affected by Marker Wadden project could compose a coherent sentiment on the objectives working in both short and long term. It was planned to include the stakeholders into collaborative monitoring. This kind of collaboration would most likely strengthen the support and interest of stakeholders towards the Marker Wadden project. (Chatzidimopoulou. 2014)

Comment [CD4]:

It has been analyzed that because of the monitoring program of the Marker Wadden started early it has had some important outcomes: This kind of early start on monitoring has been proved to alleviate the recreational, technical and commercial interests of different stakeholders. It is smart to have the stakes attended of especially stakeholders like hikers, dredging companies, fisheries and bird watchers to have these stakeholders integrated in to the monitoring even before the actual project has started. This is considered to be a proactive way of searching and recognizing the potential positive or negative effects that this project will have. If some negative points or issues are would emerge during this early monitoring, it would be more possible for the parties to make changes or adjustments to the plan so that these issues could be, in the best case scenario, refrained. If some positive effects would emerge during this monitoring, this way the early monitoring would effectively support and enhance the position of stakeholders concerning the project (Chatzidimopoulou. 2014). The early stakeholder involvement In this project made the interaction between different parties possible. All of the stakeholders interests were taken into account.

Comment [CD5]:

5. Trade – offs between Social Objectives

Assessment criteria: Are agreed service-level decisions based on tradeoffs of cost, benefits and distributional effects of various alternatives? (van Rijswick et al., 2014)

The project is widely seen as favorable for most of the involved parties and thus there are not many tradeoffs to be dealt with.

As taxation money is used for the construction of the Marker Wadden, this may cause some opinion disagreements. Since tax payers are able to benefit from the improved nature, e.g. in terms of recreational users, this can be seen as possible tradeoff.

For the environmental impact assessment (EIA) of the Marker Wadden tradeoffs are made. There where negative effects being foreseen in the EIA, however these were neglected and a permit was given according to the Nature Act of 1998 (CommissieMer, 2014). This tradeoff is accepted because when considering the expected benefits are of higher value than the negative effects for nature.

For the fishery branch, there might also be a tradeoff. Especially during construction fishery may have to decrease their activities and might have economical losses. This is further worked out in the environmental impact assessment.

With few tradeoffs made, the Marker Wadden project can be seen as favorable for all parties.

6. Responsibility, Authority, Means

Assessment criteria: Are authorities, responsibilities and means well organized to deal with water issues at the appropriate administrative scale(s) in a participative and integrative way? (van Rijswick et al., 2014)

Rijkswaterstaat en Natuurmonumenten are the main initiators of the project. Furthermore involved as authorities in the process are the Ministry of Infrastructure and Environment, the central government real estate agency, and the Ministry of Economic Affairs. Consultancy Royal Haskoning DHV and Deltares have an advisory role for the Marker Wadden. The local governmental authority is the municipality of Lelystad (ruimtelijkeplannen, 2015a). Also the province of Flevoland is involved.

In article 6 of the implementation document for the Marker Wadden in the 'Staatscourant' is stated who's in charge of what in the first phase of the project. The public face of the project is Natuurmonumenten. They are also the administrative project director. The face to the market is Rijkswaterstaat. They have the task to realize the project and contract the best constructing and advising organizations (Staatcourant, 2014).

The contracting authority thus is Rijkswaterstaat, of which the part Public Works Projects and Maintenance Programs (TenderNed, 2014). It's a European contracting procedure but is according to the competition dialogue 'Aanbestedingsreglement Werken 2012'(ARW 2012). The case was announced for the office for Official Publications of the European Union on the 6th of May 2014 with casenumber 31091560.

Then there is the local authority, the municipality of Lelystad. They have the 'Structuurplan Lelystad 2015' which is only a 'future plan' but states that before any action takes place an implementation plan has to be made (ruimtelijke plannen, 2015a). Next to that they have the 'beheerverordening' or in English 'management regulation' Lelystad. This says that no activities can take place, and if they want, they have to change the allocation plan which needs an environmental impact assessment (EIA). This EIA is also needed for the Natura 2000 assessment.

The province of Flevoland, which is should manage their nature areas, has to give a permit for the first phase of the Marker Wadden. This is according to the Nature Act of 1998. This permit, based on the EIA, was given on the June 7, 2015 and is still open for appeal (Provincie Flevoland, 2015).

Finally, and important to assess whether the authorities work in an integrated way, it is important to know that the project is part of the Rijks-Regioprogramma Amsterdam-Almere-Markermeer

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(RRAAM). This is a program that stimulates integral spatial development in the region. The Marker Wadden project is included in the RRAAM vision of april 2013 (Ruimtelijkeplannen, 2015a).

In this phase of the project authorities work well-organized according to the available knowledge.

7. Regulations and Agreements

Assessment criteria: Are regulations and agreements legitimate and adaptive, and if not, what are the main problems with regard to the above mentioned legitimacy aspects? (van Rijswick et al., 2014)

The agreements over the Marker Wadden Project are mostly regulated by EU nature and biodiversity policy, Natura 2000 (Natura 2000a, 2015), which is related to the Natura Conservation act as well as to the Flora & Fauna act (van Gogh, 2012). Another important part in the competences is taken by the WFD (Water Framework Directive), which is in relation and therefore set in the Dutch Water act (van Gogh, 2012).

Comment [CD6]: ?

Natura 2000 is an EU network which stands for the protection of nature areas and is set in the Habitats Directive (Natura 2000a, 2015). Article 6 of the Habitats directive is on the Managing and the Protection of the Natura 2000 sites, and in Paragraph 6.1 and 6.2, it is stated that the Member States should “maintain and restore habitats” as well as hinder “damaging activities” in order to protect habitat types (Natura 2000a, 2015). Paragraph 6.3 and 6.4 are about the procedure, which has to be followed if any planning of the Member states would have an influence on one of the Natura 2000 sites. Any planning will therefore be investigated through an “Appropriate Assessment”, which should detect all the implications for the site (Natura 2000a, 2015).

On the example of the Netherlands, the management plans, which are obligatory in this country (Natura 2000, Annex 202), are carried out by “several authorities on different levels” (Natura 2000b, 2015), which means that the provinces as well as three ministries are in charge of the management plans of the country. In the Directive it is stated that “one of the central or provincial governmental bodies” has the responsibility for each special site and therefore takes the lead in a previously formed “decision board” (Natura 2000b, 2015). At all the projects there also is an “independent coordination office” involved, which is consulted in terms of “general issues” and “interaction between all authorities and sectors”. Further the opinions of scientific experts, stakeholders and NGO’s are requested in order to involve every party in the process (Natura 2000b, 2015). In order to have clear outlines for the procedure of assessing plans and their realization, there are several documents provided by the European Union, e.g. “Assessment of plans and projects significantly affecting Natura 2000 sites” (EC & Habitats Directive 92/43/EEC, 2001). Additionally the plans are made public by the government of the specific country.

The second important institution which governs the Marker Wadden Project is the Water Framework Directive (further written as WFD). The WFD, incorporated in the Dutch Water act includes in their goals to protect all waters, either surface- or groundwater, to have a good quality to a certain deadline, the managing of the water based on river basins rather than country boarders, but also to get right prices and have the citizens more involved (WFD, 2015).

Comment [CD7]: Rather vague

The Marker Wadden Project is regulated by article 4 of the WFD, as it is dealing with surface waters, therefore with the Markermeer – IJmeer area. This article states that the “member states shall implement necessary measures to prevent deterioration of the status of all bodies of surface water” (WFD, 2015). Since 2003 the WDF is incorporated in the national legislations of the Member States of the European Union, and therefore an important part of the regulation of the projects.

The Natura 2000 is seen by Waterhout et al. (2013) to have a too high level of “rigidity”. As ecosystems are always dynamic, the strict rules of the Natura 2000 could complicate the adaption of projects for the different needs. Otherwise the rules still grant a lot of flexibility, especially in the interpretation on how the local stakeholders execute their plans (Waterhout et al., 2013). Further provides the Natura 2000 framework “clear and compulsory norms” and is therefore important to guide stakeholders through the processes.

Comment [CD8]: ?

In the Netherlands, for the first phase of the Marker Wadden are decisions required under the Dutch Nature Conservation Act, the Earth Removal Act and the Water act (Staatscourant, 2015). They fall respectively under the province of Flevoland, the Inspection for Environment and Transport and the ministry of Infrastructure and Environment. These draft decisions can be reviewed in the Staatscourant and were open for public comment at the Province.

Comment [CD9]:

Comment [CD10]: Dungleish

The Marker Wadden project complies with this building block as it fulfils the legitimacy of “shared and agreed values” and is in “conformity with the rules”, which apply to the different Member States of the European Union (van Rijswick et al., 2014). In hindsight of the legal certainty and adaptiveness, the lack of flexibility could be seen as a possible weakness and should potentially be edited.

8. Financial arrangements

Assessment criteria: Is the financial arrangement sustainable and equitable? (van Rijswijk et al., 2014)

The amount of money raised by the Dutch government, Natuurmonumenten, the province of Flevoland and Postcode **Lotter** for Marker Wadden project is around 50 million euros. With this money, the construction of the first island got started. (Natuurmonumenten, 2015) Additional 30 million euros to finance the project is available from different contributions from businesses and citizens and grants from regional, state and European funds. (Marker Wadden, 2015)

Comment [CD11]:

Natuurmonumenten got 15 million euros from the 'Dreamfund' of the Dutch National Postcode Lottery and this contribution was considered to have started the planning of this project. The Dutch government contributed for 30 million euros: Ministry of Economic Affairs was responsible for 15 million and the other 15 million was granted by the ministry of I&M. Conditions for funding for this project were that Marker Wadden project overall is very important to the realization of ESH. Another condition was that the Nature 2000 maintenance objective would be promoted by Marker Wadden. (Louw et al., 2013.) The complete cost of Marker Wadden project is around 115-140 million euros. This includes management, maintenance, compensation, supervision and planning costs (Marker Wadden, 2015).

Smaller conflicts about the financial agreements of the Marker Wadden project exist. There is the case of 80 private landowners around the Markermeer against Natuurmonumenten because they thought that Natuurmonumenten would get governmental aid from the government, and they were not. However Natuurmonumenten has replied that they don't receive aid and that private landowners earlier in the process had chances to join the project (Omroep Flevoland, 2015). This case is not only about the Marker Wadden but about governmental aid in general. The issue is not concluded yet.

The financial arrangements of Marker Wadden are substantially valid but there are parties which state that the project financing is not equitable.

9. Engineering and Monitoring

Assessment criteria: Are SLAs sufficiently available (implicit or explicit) in order to redesign the existing infrastructure? Are the design and consequences of different alternatives sufficient available? Is there sufficient monitoring of the system and are the data analysed? (van Rijswick et al., 2014)

Construction plans:

The engineering of the Marker Wadden islands is planned on a long term basis and therefore there were different approaches discussed (van Gogh, 2012).

Those approaches included:

1. Deltas, where the southwest winds and the shallow Enkhuizerzand resulting in clockwise circulation would have brought a concentrated zone of sedimentation.
2. Lagunas, which would face subsequent water level changes during storms and therefore be a strong natural process, with the downside of the low frequency.
3. Archipel, which would lead in a large scale land – water ecosystem.
4. Atolls, which reduce the silt load and slug from the bottom of the Markermeer in the most efficient way.

(Houtribdijk Marker Wadden, 2014)

The competent authorities finally agreed on the construction of those atolls (Ruimtelijkeplannen, 2015b). The creation of these follows a plan of different phases. The first phase is to produce a shelter from the waves in the deep water. A layer of stone will protect the constructed dam or reef and further trenches will be created for collecting the silt, which will be used as building material in the further steps, which can be seen as “building with nature” (Houtribdijk Marker Wadden, 2014). This is followed by creating land at a water level which allows reed bed to colonize the area. Afterwards reefs and dams at different levels are constructed, with varying depths so that a whole ecosystem is able to develop (Houtribdijk Marker Wadden, 2014). An impression of the possible looks of those Atolls can be seen in Figure 4.



Figure 4: Impression on the possible looks of the Marker Wadden area (Ruimtelijkeplannen, 2015b)

Just for the design of the Atoll there are again four different possible variations on behalf of the speed of construction and the used materials (Ruimtelijkeplannen, 2015b). The environmental assessment plan (EIA) is controlled by the European Union and gives outlines of the further development, in which is stated that the basic design consists “an underwater landscape of sand pits and a trench system” (Ruimtelijkeplannen, 2015b). It is shown that the European regulations have less influence on this part of the project. Although the EIA plan is originated from the European Union, there is still a lot of freedom in the execution of building the Marker Wadden.

Comment [CD12]:

Comment [CD13]: ???

It can be seen that the assessment criteria in relation to sufficient plans of redesigning and alternatives and their implementations, is fulfilled.

Comment [CD14]: unclear

Monitoring:

The Marker Wadden is subject to different natural phenomena like wind, waves and water level fluctuations. Hence it is necessary to have adaptive development strategies which takes these dynamics into account, e.g. the speed of the sediment capture (Ruimtelijkeplannen, 2015b). Apart from that, this project is innovative and there is little to no experience in monitoring this project. For this reason there are model calculations and the experience in the first constructions step that has to be taken into account for further phases of construction. The “effects of nature conservation measures” of this area are at the moment monitored by the government (Ruimtelijkeplannen, 2015b).

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There are many organizations involved in the monitoring process. Recently the Dutch Organisation for Scientific Research (NWO) funded a research done by Prof.dr. M. Wassen (Utrecht University) with as topic 'Smart ecosystems: Regime shifts from mud systems to dynamic wetlands' . The research is carried out by the UvA, TUD, WUR-ALTERRA, Deltares, Boskalis, Van Oord, Royal HaskoningDHV and Natuurmonumenten (NWO, 2013). The other organizations that are involved in monitoring are Rijkswaterstaat, TopSector Water – Taskforce and Deltatechnologie (Chatzidimopoulou, 2014).

As this project is so innovative, it cannot be said if the monitoring of the system is sufficient and therefore the following years will show the outcome.

10. Enforcement

Assessment criterion: are regulations and agreements enforceable by public and/or private parties, and are there appropriate remedies available? (van Rijswick et al., 2014)

Dutch regulation

The municipality can only check whether the activities are executed in line with the allocation plan once these have been established. The provincial authorities have to check the compliance of the conditions of the permit, such as on 'zandwinnen' and monitoring requirements. ILENT, the inspection, is responsible for the enforcement of the permit. Rijkswaterstaat has to do enforcement of the permit under the Water Act (ILENT, 2015). Most importantly Rijkswaterstaat has responsibility for the governance part of enforcement of the Water Law, as stated in article 8.1 (infomil, 2015).

The different laws have their proper enforcement paragraphs which might distinguish between administrative and penal law. Infringements might also be enforced under penal law under the 'Wet economische delicten'.

The Marker Wadden is a 'Learning by Doing' project. However to prevent it to become a 'trial and error' project, Natuurmonumenten and Rijkswaterstaat made an 'best effort' obligation for the creators of the islands (Staatscourant, 2014). These are the dredging companies Boskalis and Van Oord. The problem with this obligation is that if there are 'errors' and mistakes are made, it's difficult for a court to judge whether the obligation is fulfilled or denied.

European regulation

There are several European policies that play a role in the process of the Marker Wadden and enforcement should at first be done by the member states themselves. The policies for the Marker Wadden are Natura 2000 from the European Birds and Habitats Directives and the Water Framework Directive. These directives are also included in the corresponding Dutch legislation. So the government, and in case of the Marker Wadden the provincial government of Flevoland, has the responsibility to meet European standards. For nature, often nature organizations, such as Natuurmonumenten, help them meet these standards or push towards more ecological policy. However when member states do not fulfill the requirements, they will get official notice of default from the European Commission. When they then still do not act they can receive heavy fines from the European Court of Justice. In practice this almost never takes place and even when they have

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they pay there is no way that the Court can actually make them pay. This is surely a problem of legitimacy for the European policy for the Marker Wadden.

Comment [CD15]: reference

Overall it seems that Dutch regulation is well enforceable, European regulation is not but that will not have an effect on the Marker Wadden project because this regulation is incorporated in Dutch regulation.

11. Conflict Prevention and Resolution

Assessment criteria: Are there sufficient conflict prevention and resolution mechanisms in place? (van Rijswick et al., 2014)

To prevent conflict, in early stages of planning for these kind of plans in the Netherlands, all stakeholders can review plans before the implementation can take place. Also to ensure all environmental quality parameters are independently assessed, an environmental impact assessment is made and participation is part of this, according to article 7 of the 'wet milieubeheer'. Natuurmonumenten states for this project: "in order to prevent conflicts the project will try to get as much basis and input from third parties as from the very beginning. This has been experienced over the years. This may start by information sessions and webbased publications." (Natuurmonumenten, 2015). In order to participate in any part of the process, one has to be a stakeholder (Stab, 2009)

Next to that, is that the area chosen is quite a remote place, even in the 'crowded' Netherlands. Also specifically it was taken care in the planning process that the landscape view from the Houtribdijk would not be hindered by the Marker Wadden (CommissieMER, 2013).

One thing that could be seen as a problem to a level playing field between the stakeholders is that the rules of the game in the Netherlands are so advanced and dependent on expert knowledge that local parties have difficulties in the policy process (Waterhout et al., 2013). Also entry to courts, can be difficult for smaller stakeholders because of high procedural costs for the initiators of a case.

Conflict prevention and resolution mechanisms are definitely in place. Transparency is also seen as conflict prevention and is high for the Marker Wadden project.

12. Conclusion and policy advise

To answer whether good water governance is met during the Marker Wadden project, we conclude by stating the final notes on the assessment criteria of the ten building blocks of Van Rijswijk et al., 2014.

We conclude that there must be enough knowledge to carry out this project to fulfill the required societal functions and that values and principles are overall shared for the Marker Wadden project with all stakeholders having values that lead towards solutions. The early stakeholder involvement in this project made the interaction between different parties possible. All of the stakeholders' interests were taken into account. With few tradeoffs made, the Marker Wadden project can be seen as favorable for all parties and in the first phase of the project authorities work well-organized according to the available knowledge. The Marker Wadden project fulfills the legitimacy of "shared and agreed values" and is in "conformity with the rules", which apply to the different member states of the European Union. In hindsight of the legal certainty and adaptiveness, the lack of flexibility could be seen as a possible weakness and should potentially be edited. The financial arrangements of Marker Wadden are substantially valid but there are parties which state that the project financing is not equitable. Sufficient plans of redesigning and alternatives and their implementations are carried out when concerning engineering. As this project is so innovative, it cannot be said if the monitoring of the system is sufficient and therefore the following years will show the outcome. Overall it seems that Dutch regulation is well enforceable, European regulation is not but that will not have an effect on the Marker Wadden project because this regulation is incorporated in Dutch regulation. Conflict prevention and resolution mechanisms are definitely in place. Transparency is also seen as conflict prevention and is very high for the Marker Wadden project.

As a policy advice considering the nature of this project it would be smart to keep the focus on monitoring at the governance level. Transparency is important to keep all parties content in such an extensive project. Therefore monitoring and clear publications of ongoing processes are of high value.

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Comment [CD16]: Which university?

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