Unwinding Coalitions
An analysis of discourse coalitions for offshore windfarm development in Katwijk

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Summary

There has been controversy regarding the plan to install offshore windfarms in the 12-mile zone, an area in which the windmills are visible, in Dutch coastal villages, among which Katwijk. Local government, economy and population claim setbacks regarding their economy, harm to wildlife and visual pollution. This has resulted in protests and lawsuits, which delayed the installation of the windfarms. Meanwhile the different stakeholders kept up varying storylines, coming from varying social constructs, called discourses. As stakeholders combined their forces and storylines, they are called discourse coalitions. The influences of given coalitions on policy has not been researched. Therefore, this thesis researches the influence of discourse coalitions in the policy for offshore windfarms in the 12-mile zone in Katwijk. By gathering data from newspaper articles and social media outings, arguments and storylines made by stakeholders could be bundled. The statements were coded through Discourse Network Analyzer. From this the individual discourses were assessed, and the DNA presented visualizations of the discourse coalitions that are in place.

This resulted in two coalitions: the proponents (National government, NGOs, and Pro-local population) and the opponents (Local government, Local economy, Protest groups and Con-local population). The main differences that were raised, were the differences in prioritization – renewable energy or local livelihood were respectively thought to be highest priority – and differences in created knowledge – whether the windmills can be seen from the coast, whether local economy will suffer and whether wildlife will be harmed. The debates between the coalitions revolved around these two disagreements.

The influences of the discourse coalitions were measured through structuration (dominance in national news coverage) and institutionalization (dominance in policies) (Hajer, 2002). By analyzing the most read papers of the Netherlands, both discourses seemed subject to structuration, but only the proponents were dominant in the policies, which means that they had greatest influence.

The research shows hostility between the coalitions and in that sense confirms earlier researches (Wolsink, 2010; Devine-Wright, 2011; Van Ernst et al, 2014) that say that timelier public participation is very important in cases that involve renewable energy projects, as local disadvantages may be experienced as sacrifices to national benefits, and this creates controversies.

Introduction

Renewable energy is an important aspect of the future of the Netherlands. As fossil fuels are depleting – they are not supplemented at the same rate as they are consumed (Frey & Linke, 2002) – and international policy has been hinting towards minimum levels of renewable energy (Haas, 2002; European Parliament, 2009), the Netherlands tries to keep up. In order to do so, the Netherlands set the Energy Agreement for Sustainable Growth in 2013, which stipulates her intentions to have at least 14% of renewable energy by 2020. The measures include a decrease in energy consumption among the population and industry, agreements in specific sectors like mobility, and increased focus on renewable energy generation (SER, 2013). The latter includes onshore and offshore wind energy, solar energy and biomass. For offshore wind energy, specifically, a new policy had to be established (SER, 2013).

Offshore wind energy is an interesting energy source for the Netherlands for a number of reasons. First, wind speed at sea is usually bigger and more uniform – which is beneficial to the lifetime of the turbine (Esteban, Diez, López & Negro, 2010). Also, there is more space at sea which mean less conflict with other infrastructure, and because of the possibility to transport the components by boats, the wind turbines can be made significantly larger than onshore (Esteban et al., 2010). As the Netherlands has a relatively large coastline, the government has planned to invest in this type of renewable energy. Therefore, the plan in the Energy Agreement for Sustainable Growth is to quadruple the number of offshore windmills (SER, 2013).

While it is true that the sea has more space that is unoccupied by infrastructure, the North Sea is used for multiple purposes (Noordzeeloket, n.d.). This includes fishery, shipping and oil and gas extraction, and for these different employments to co-exist, the Netherlands uses spatial planning to organize the North Sea (Noordzeeloket, n.d.) in the form of the *nationaal waterplan* (Ministerie I&W, 2015). In order to add offshore wind energy into this spatial planning, allocated lots are established on which the windfarms can be built. Contractors can then bid for the lowest subsidy and get the right to build the windfarm (Van der Lugt, 2018). To avoid vision pollution of the horizon, as coastal municipalities have complained, the windfarms were mainly built outside of the 12-mile zone. This equals 22.5 kilometers from the coast (RVO, 2016): a distance at which windmills can hardly be seen from the beach. However, permanent building, like windmills, within this zone is allowed if there are no realistic alternatives; if no harm is done to coastal protection; and if the activities are of national value (Ministerie I&W, 2015). These conditions were presumably deemed met, as multiple potential windfarm lots were allocated within the 12-mile zone: at 10 miles, which equals 18.5 kilometers, within the *nationaal waterplan* (Ministerie I&W, 2015). This has resulted in controversy.

Windfarms in the North Sea have been a sensitive topic for many coastal villages, including Katwijk. Local businesses, population and even the municipality itself have voiced their concerns about the effects of windfarms in front of the village (Brekelmans, Göransson, De Lange & Udo, 2014; Vissersbond, 2016; Ver-zet Windmolens, n.d.). According to them, the installation of windfarms in the

12-mile zone has negative impacts of different sorts. First, it could create an economic downfall concerning both tourism and fishery (Koster, 2019). Second, it has a negative effect on the livability, the coastal experience of the local population. The initiatives that protest proposed an alternative location for the windfarms: a location 48 kilometers from the coast, where it cannot be seen from the beach (Omroep West, 2019). While these objections are made, the government has deemed the national value high enough, and alternatives unrealistic enough to allocate windfarm lots in this area. This is thus a societal problem as it involves the livability of the coastal population. Additionally, the protests slow down the development of the windfarms as some interest groups have sufficiently protested against the windfarms to present it at the Dutch *Raad van State* – the highest general administrative judge of the Netherlands.

These different stakeholders within society often create storylines in which they frame their problem and their solutions. The varying social constructs are expressed in their communication regarding the subject: their discourse (Hajer, 1995). Analyzing the associated discourses gives a better understanding of the different opinions that are represented and the politics of controversial issues such as the locations of windfarms. These can be clustered into coalitions, which are groups of stakeholders with similar storylines and worldviews (Hajer, 2002). Discourse analysis through coalitions gives a wider political context, better presentation of how views are played out and how different stakeholders can share discourses without necessarily sharing deep values (Hajer, 2002).

As there is still little knowledge on the influences that discourses can have on cases that are similarly sensitive to the community but governed from national levels, this research might give more insight into the influential role of discourses and discourse coalitions. The aim is thus to first provide more insight into the different storylines and arguments of the parties and coalitions regarding windfarms in the North Sea and from there to assess the level of influence in the decision-making.

This research will specifically look into the municipality Katwijk, which is situated in the province Zuid-Holland in the Netherlands. Being one of the larger coastal villages, many opinions and storylines are created and maintained.

Using discourse analysis, the question that this thesis will answer is: *To what extent have various discourse coalitions influenced the development of offshore windfarms in the North Sea in front of Katwijk?*

The sub-questions that need to be answered in order to find the main answer are:
- Who are the stakeholders?
- Which discourses are held by the stakeholders?
- Which discourse coalitions can be identified?
- To what extent do discourse coalitions influence the decision-making process?

To do so, first relevant concepts and theories will be presented in the Theory, which are the stakeholder analysis and discourse analysis, including the discourse coalition. A framework regarding the concepts

will be presented. Thereafter, the Methodology will be presented, including the gathering of data and the analysis of data. The latter includes a step-by-step plan for the analysis of the discourses, discourse coalitions and extent of influence.

After this, the Results will be made up of the outcomes of the analysis on the basis of the sub-questions above. The Discussion will review the outcomes and embed these in the existing literature on the topic, as well as discussing the implications and limitations. Finally, the Conclusion will exist of a summary and answer to the research question.

This research will create more insight into the influence of discourse coalitions and their discourses in the municipality Katwijk regarding offshore windfarm installation. This contributes to the effectiveness of policy makers on the one hand, because they can take influences of discourses into account and try to smoothen the process of policymaking and consensus-building. On the other hand, it also contributes to the knowledge base of discourse influences in the case of offshore windfarms in Katwijk and other similar cases.

Theory

Definition stakeholder and stakeholder analysis

The concept stakeholder has received increased prominence in different scientific fields, including management and governance. This term originates from corporate governance, in which it is defined as groups who have a stake in the actions of the corporation (Freeman & Reed, 1983). This has been extrapolated to a broader definition of groups who have stakes in other decision processes, including policy making and project development (Brugha & Varvasovszky, 2000). However, this still raises the question: who have stakes in these actions? Mitchell, Agle and Wood (1997) set out many identifying definitions, both broad and narrow, of stakeholders. These vary from entities 'that interact with and give meaning and definition to the project' (Wicks et al., 1994) to entities in relationship with the project in any form (Thompson et al, 1991). According to Reed & Curzon (2015) the most accepted definition is the entities that influence projects or are influenced by projects in any form. This last definition will be held in this research, as it enables the largest relevant group of stakeholders, to prevent potential exclusion.

Nutt (2002) shows that half of the analyzed strategic decisions fail, largely because of the inability to identify stakeholders and their interests in the matter. Therefore, an operationalization of identification is important to assess stakeholders involved. Bryson (2004) sets out the basic stakeholder analysis technique in which a list of stakeholders is created from desk research and more might be added after further investigation. This identification of stakeholders will be used as the basis for the discourse analysis and discourse coalition analysis.

Definition discourse and discourse analysis

Stakeholders' interests can be related to the broader social and cultural understandings of these stakeholders: a social construct. The idea that entities think, talk and act from a social construct is further explained by Michel Foucault under the term 'discourse'. He defined discourse as the 'textual and epistemic claims that have to be analyzed in relation to non-discursive domains' (Foucault, 1989). Non-discursive domains include political processes among others.

Hence, to come to a better understanding of underlying values of interests and stances of stakeholders, it is valuable to analyze associated discourses. Two broad categories of discourse analyses can be distinguished. The first is the 'linguistic-oriented tradition', which mainly focuses on the language, whereas the second is the 'broader tradition', which sees discourses as a more general way of thinking (Runhaar, Dieperink & Driessen, 2006). As the latter dominates the area of policy analysis, this method will be used in this research.

Discourse embodies the framing of a certain problem, including ideas, concepts, historical references, myths and beliefs (Hajer, 2002). A discourse will therefore be presented in this research as the framing of key idea, arguments and position of the stakeholder.

Definition discourse coalition and discourse coalition analysis

From the discourse analysis, the underlying social construct of perceptions can be analyzed for every stakeholder. According to Hajer (2002), there are often groups of stakeholders that hold a comparable discourse, which he calls discourse coalitions. These coalitions are held together by discursive affinity: a similar conceptualization of the world, while arguments may vary in origin. This approach 'suggests that politics is the process in which different actors from various backgrounds form specific coalitions around specific story-lines' (Hajer, 2002). The advantages of discourse coalitions that Hajer (2002) mentions are the potential to analyze a wider political context; it gives a better presentation of how views are played out; and it shows how different stakeholders can share discourses without necessarily sharing deep values.

Dominant discourse

As mentioned, politics is influenced by discourses and discourse coalitions (Hajer, 2002). This is explained in two possible manners. The first is the structuration of a discourse. This encompasses the dominance of a certain discourse in the terms of debate (Carvalho, 2008). Any discourse can influence media statements and other utterance in the political field. This proves dominance over other discourses, as it shows which discourses were deemed valid enough to be covered and reflected upon. The second is the institutionalization of discourse. If a discourse is successful it can turn into an institution which is used by many people to conceptualize the world, for example a policy or legislation (Hajer, 2002). This differs from structuration, as it is extra-textual: it causes actual change as an institution (Carvalho, 2008).

For the research, it is valuable to assess whether structuration and institutionalization of discourses take place, as this represents the influence that discourse can have. To research this, the discourses of different stakeholders and discourse coalitions will be compared to independent media statements (structuration) and created policy (institutionalization) (Hajer, 2002). By doing this, the dominant discourses will be presented, and conclusions can be drawn on influential stakeholders and discourse coalitions in this case study.

Conceptual framework

Figure 1 provides a framework of how the concepts are integrated in this research. As is mentioned earlier, certain beliefs and constructs influence the discourse of a specific stakeholder, which makes discourses unique. If, however similar elements can be found in discourses, these are merged to a discourse coalition. These discourse coalitions can in their turn influence media and politics through structuration and institutionalization respectively. The stakeholders will thus be analyzed individually to assess their discourse. Discourse coalitions will be found between stakeholders. The extent of structuration and institutionalization of these discourses will be analyzed through media statements and policies that correspond. Figure 1 only depicts one discourse coalition, however, multiple can be found.

They may all influence society through structuration and institutionalization to a certain extent, as media and politics are often a mix of elements from different discourses (Hajer, 2002).
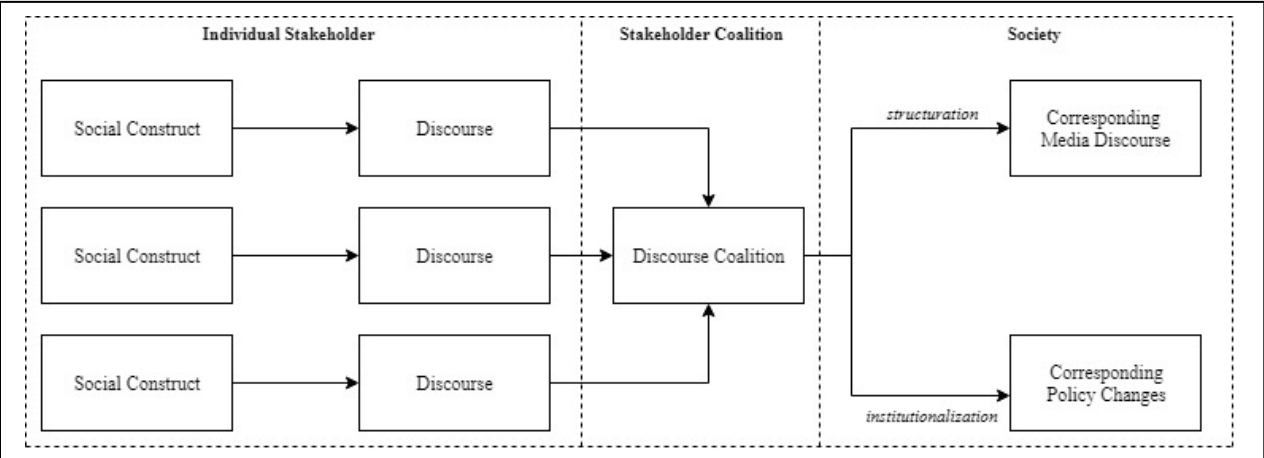

Figure 1: conceptual framework picturing relations between explained concepts.

Methods

Research design and method

This research is qualitative, focusing on the perceptions of stakeholder entities and their underlying values and constructs. It is a discourse analysis into the policy process of windfarm installation in the North Sea in front of Katwijk. Discourse analysis is useful, as it can present an individual case, with its own narrative. The case presented here is that of only the municipality Katwijk. An advantage of this is that changes within this specific unit of research can more easily be monitored and analyzed (Swanborn, 2010). This case has specifically been chosen because of the recent controversies within the community from different actors involved. Various large local protests have been held and lawsuits of local economy and population have even made it to the *Raad van State*. This makes it a topical case that reflects similar political processes in other coastal villages around windfarms.

Gathering of data

At first, stakeholders were defined as Bryman (2004) describes: from the grey literature that is available on the subject a list is created. This list was expanded if needed.

The discourse analysis was done by means of Kanazawa (2017). This means that documentation like news accounts, editorials and so forth, were collected that depict the concepts, ideas and categorizations that stakeholders make. By looking at the arguments and perception of concepts, a storyline was created for each stakeholder. This storyline, or discourse, represents the social construct from which that stakeholder perceives the subject.

A variety of textual documents were gathered to analyze the stakeholders' discourses. These were mostly news coverages from both local, regional and national platforms and social media outings that were all publicly accessible.

The data that has been used, was found through multiple searches in varying databases. Firstly, Nexis Uni was used in which the terms: "Windmolens Katwijk"; "Windmolenpark Katwijk"; "Windmolenpark Hollandse Kust Katwijk" and "Windenergie zee Katwijk" were used. This led to sources from the Leidsch Dagblad, Trouw and Volkskrant. These are regional or national newspapers, which established the debate and the field of discussion.

For the more in-depth statements, local newspapers and sources were used. Through Uitgeverij Verhagen and Buijze Pers the two newspapers of Katwijk (Katwijksche Post and Nieuwsblad Katwijk) could be accessed and in these databases the terms "Windenergie" and "Windmolens" were searched.

Next, in Google, the News search function with search terms "Windenergie zee Katwijk" and "Windmolens zee Katwijk" were applied, which provided data from NOS, Omroep West and RTV Katwijk, other news outlets, respectively national, regional and local.

To be able to depict the local debate among the population that is not involved through organizations or initiatives, the last data was found on social media, namely Facebook. Within Facebook,

the group 'Je bent een Kattuker als…' was searched for the term "Windenergie" and the threats of messages of local population discussing the matter were copied as data for the analysis.

For all newspapers and sources, there were more available data than the data that have been used in the analysis. The data that have not been included, did not create new insight into discourses of stakeholders, as they included arguments that had already been made by the given stakeholder. Morse (2004) states that this implies data saturation in which 'the researcher has continued sampling and analyzing data until no new data appear and all concepts are well-developed'. Therefore, it was chosen to omit those texts. This merely means that the opinions voiced in the source, were already voiced elsewhere. The sources that were used, are visualized in Appendix 3.

Analysis of discourse coalitions

As the data was gathered, it was transcribed when needed, and coded. By using the steps of Kanazawa (2017), different discourses were identified.

First reading the available literature and then coding revealed the key themes, issues and arguments of every stakeholder involved. Using the Discourse Network Analyzer (hereafter: DNA), a program established by Leifeld, which reveals the structure and dynamics of policy debates (Leifeld, Gruber & Bossner, 2019), the discourses of stakeholders were established. It consists of three steps:

1. Coding of statements of stakeholders in unstructured text sources;
2. Creating networks from the resulting structured data; and
3. Analyzing and interpreting the results.

The text sources that were imported into DNA were the gathered data that is mentioned above. In DNA concepts are created, which are arguments that stakeholders make within the data. For every statement made by a stakeholder that is coded, the coder can attach the person who made the statement; the organization the speaker is affiliated with; the concept (this represents an argument) which is raised; and the amount of agreement. The first three variables are nominal variables, whereas the latter is a Boolean data type, for which two forms are allowed: agreement or non-agreement (Leifeld, Gruber & Bossner, 2019).

Once this is done, DNA can create multiple outcomes (Leifeld, Gruber & Bossner, 2019). First, a one-mode network can show the amount of times two different stakeholders touch upon a certain concept. This shows which arguments stakeholders agree upon or debate about. Second, the two-mode network can show how often stakeholders mention certain concepts – therefore two variables are being depicted. This shows which arguments are held by whom and thus gives insight to stakeholders that share arguments. Third, an event list shows all events with the information needed: person, organization, concept and agreement.

Using this, the discourse networks were identified through rDNA, a program that models the outcomes of DNA. This program can plot discourse coalitions in networks, dendrograms and matrices.

As this research aims to identify the different stakeholders that make up a discourse coalition, the network plot will be used to visualize the field. rDNA offers multiple ways to assess discourse coalitions. This research will use cluster analysis. The cluster dendrogram represents a binary matrix that shows how many statements stakeholders agree upon.

Analysis of discourse influence

For structuration, media coverage was researched. As different discourses are present in the public arena of debate and media, a select number became dominant. The dominant discourse represents the way in which society conceptualizes the world (Hajer, 2002). This conceptualization was looked at by looking at media coverage and thus the perception of the media: which discourses are the guideline for a given news article. This was studied from a number of articles in national papers – to establish a broader sense of the public. In order to find enough sources, articles were found on the entire coastal area that protests against the windfarm installation, instead of only Katwijk. Articles were chosen from the ten most read newspapers in the Netherlands, to establish a representation of the entire society. This does not include columns or opinionated articles. Hajer (2002) mentions that a discourse is dominant in terms of structuration when arguments are measured by standards of that discourse. For every article, the dominant described discourse is selected. The outcome might or might not be generalizable, depending on the variation between articles and newspapers.

For institutionalization, recent policy developments were mapped and compared to the stances of coalitions. This showed which coalitions mostly influence the policy. This part of the research mainly reflected on the *nationaal waterplan*, which prescribes the choice in offshore wind energy locations. To do this, the stances of the discourse coalitions regarding offshore wind energy were compared to the choices made in policy, especially regarding the given conditions for permanent building in the North Sea: no realistic alternatives; no harm is done to coastal protection; and the activities are of national value (Ministerie I&W, 2015). The stances were visible in DNA, as agreement on the subject was coded for every statement.

Reliability and validity

As this research uses discourse analysis, the approach on reliability differs from other research methods (Nikander, 2008). Reliability, which implies consistency over time, across items and across different researchers, does not necessarily hold over time and across items. As discourse is time specific, it can change and therefore perceptions and stances can change. Besides, in every case of the same subject – offshore windfarm installation – the discourses could be different for local populations, local governments and so on. It is possible that municipalities similar to Katwijk experience comparable situations and discourses, but extrapolation is not the initial intention of a discourse analysis. Reliability across different researchers however is important. This is established through a clear consistency in data gathering and coding, which results in corresponding types of results, regardless of the researcher. To

do so, the search terms are mentioned and the same arguments in DNA should be maintained by different researchers. Also, as DNA identifies the discourse coalitions, this is done by algorithms, so less vulnerable to personal bias and thus inconsistency.

The research method is valid, as a discourse analysis gives space to analyze the narratives, which are of importance in the research question. The use of DNA is beneficial again, as it computes the coalitions, and the research into influences has been done by means of Hajer (2002), in the way it was intended to be used. To further establish validity, data was gathered up to the saturation point, so that all stakes and discourses were properly analyzed.

Ethics

As all sources used were open sources, it was assumed that individuals did not prefer anonymity. Their names and opinions could be found on the internet. Because of this, no ethical dilemmas arose regarding the analysis or storage of data.

Results

Stakeholders

Using Bryson (2004), the stakeholders were identified from grey literature that was collected on the topic of offshore wind energy in front of Katwijk. The first notable stakeholders that were found were the local government, national government, protest groups, fishery, tourism and local population. As fishery and tourism have almost identical discourses, representing their economic benefits, these two groups were merged to 'local economy'. On the other hand, more in-depth research showed that the local population could be divided into pro and against offshore wind energy. Therefore, these were split into two stakeholders. Protest groups are also made up of the local population but are distinguished from the against-local population because protest groups are those that initiated action, whereas the against-local population did not. They only voiced opinions without practicing them. Furthermore, NGOs turned out to be a stakeholder, voicing their opinions on numerous occasions. This results in the following stakeholders:

- *The Local government;*
- *The National government;*
- *Protest groups;*
- *Local economy;*
- *Local population pro;*
- *Local population against; and*
- *NGOs.*

Arguments used

By starting to code in DNA, the different arguments were made up. These are the general reasonings behind the statements that different stakeholders make. In total, seven arguments were found about which stakeholders voiced an opinion. Stakeholders could either agree or disagree with these arguments, which consists of the following – with abbreviations in brackets as these are used in tables and visualizations:

- The local economy will suffer from the offshore windfarms (local economy will suffer);
- Alternative windfarm IJmuiden Ver is too expensive to consider (IJmuiden Ver too expensive);
- Offshore windfarms create more costs than revenues (more costs than revenues);
- Offshore windfarms in the 12-mile zone are visual pollution (visual pollution);
- Local livelihood is sufficiently considered by the national government (local livelihood sufficiently considered);
- Offshore windfarm installation in the 12-mile zone is harmful to aquatic and aerobic life (harmful for aquatic and aerobic life);

- The installation of windfarms in the 12-mile zone is needed to realize the Paris Agreement targets (needed to realize Paris Agreement Targets); and
- The installation of windfarms is more important than the damages to local economy or visual pollution (installation more important than damages).

Discourses

Through coding, the arguments used by stakeholders could be found, including their either agreement or disagreement to the statement. Appendix 1 shows the entire event list: all texts that were coded with corresponding person, organization, argument and date. Appendix 2 then shows the different arguments that make up a discourse per stakeholder, based on the frequency – and thus importance – of arguments used, and the following overview shows these discourses:

Stakeholder	Discourse
Local government	Due to unbeneficial circumstances for the local economy and livability, windfarms should not be placed in the 12-mile zone, but in the alternative Ijmuiden Ver instead. This would even be beneficial financially.
National government	As offshore wind energy is needed to realize the Paris Agreement targets, this development is of great importance; even more so than the local disadvantages. Furthermore, most remarks made by opposing parties are incorrect.
Protest groups	Offshore windfarms are unbeneficial to the entire local livability, including the economy and clean horizon, and that is insufficiently acknowledged by the national government.
Local economy	Offshore windfarms harm the local economy and the flora and fauna, which are important to some parts of local economy.
Local population (pro)	Creating renewable energy is the most important objective in the debate: some local sacrifices need to be made to realize the Paris Agreement targets.
Local population (against)	Offshore wind energy is highly disadvantageous to the local livability. Besides, it is not the most efficient form of renewable energy, as it costs more than it yields. Therefore, other forms of renewable energy would be better.
NGOs	Offshore wind energy is needed fast. Therefore the 12-zone mile location needs to be used. Damages to the flora and fauna and local economy are limited.

Table 1: discourses of individual stakeholders

By using the data of DNA in different visualization programs, like rDNA and Visone, multiple network plots and other graphs were made to further investigate the connections between the discourses of stakeholders. Figure 2 shows the different stakeholders and their relationship to the arguments. Green indicates agreement and red indicates non-agreement to the arguments made.
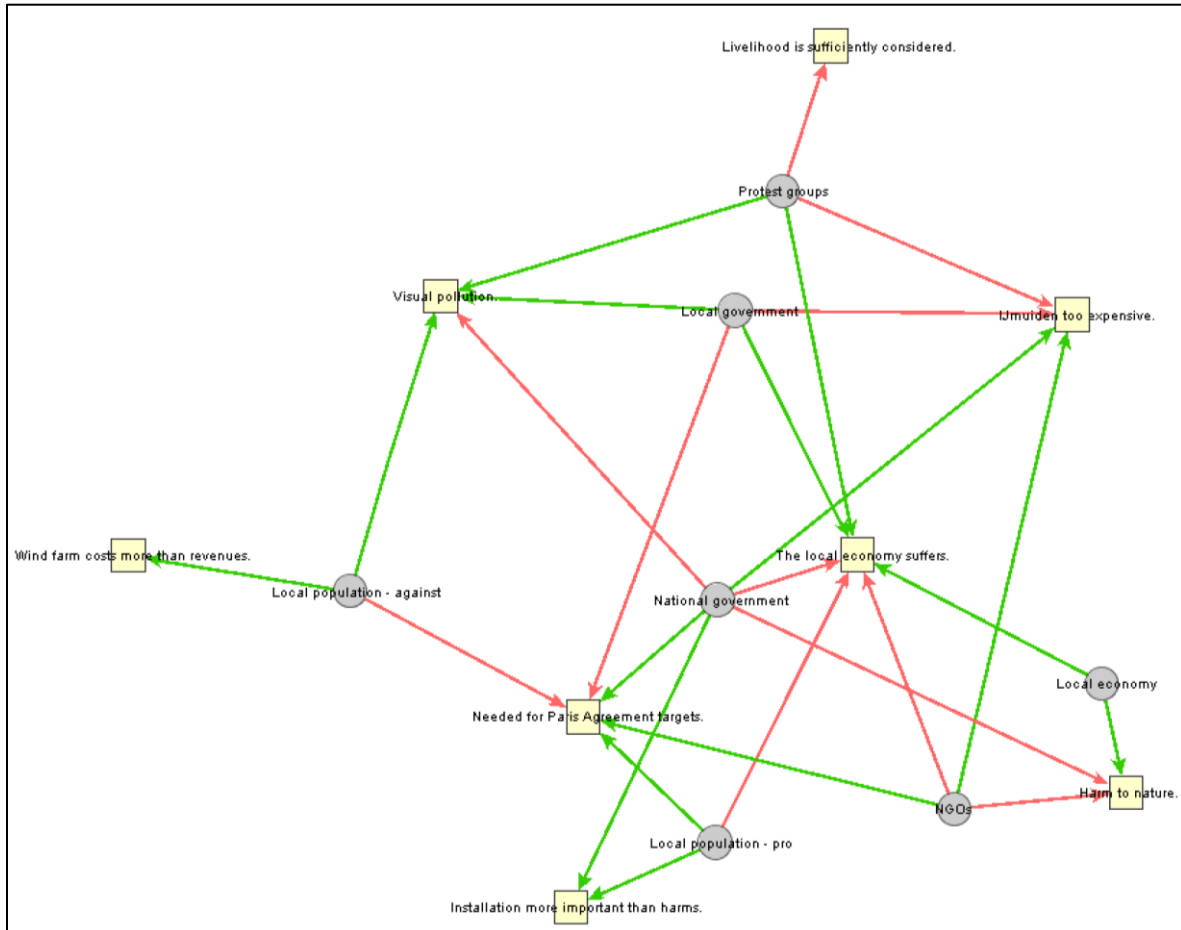
Figure 2: two-mode network of stakeholders and arguments, made in Visone.

Within the DNA software, the next step was to analyze the different discourses and identify discourse coalitions.

Discourse coalitions

Discourse coalitions, groups of stakeholders that hold equivalent discourses and by that bundle forces, are identified by the software of rDNA. By programming rDNA into R, a cluster dendrogram was made that visualizes the different stakeholder coalitions. In Appendix 4 the arguments of the stakeholders in different coalitions can be found.
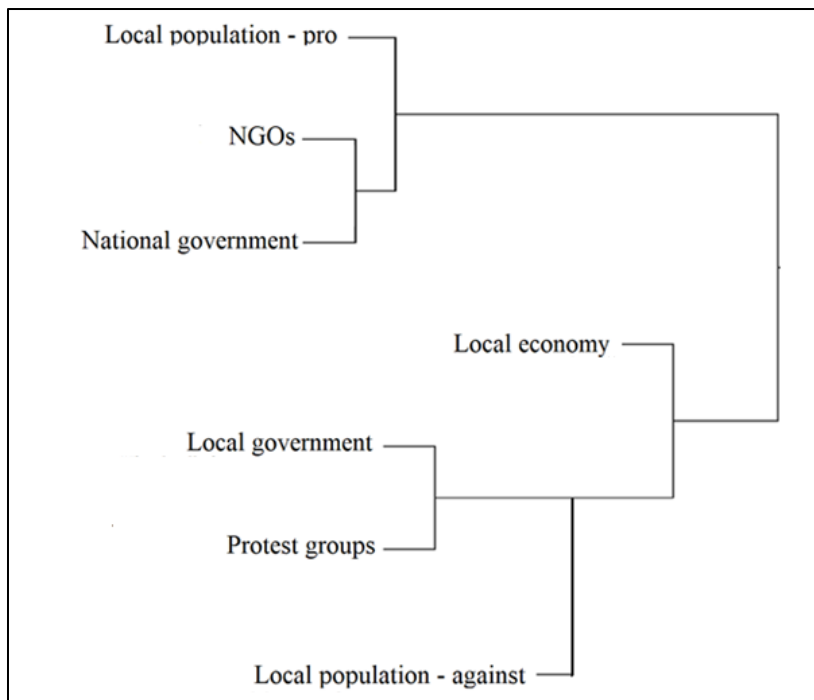
Figure 3: cluster dendrogram, made in rDNA.

The closer stakeholders are depicted in figure 3, the more interwoven their discourses. Therefore, discourse coalitions can be established at multiple levels. The two closest coalitions are NGOs & National government and Local government & Protest groups. They share four and three arguments respectively which they have made regarding the installation of the windfarms in the 12-mile zone. These arguments are depicted in Appendix 5, where they are clustered as coalitions.

From here broader coalitions could be established. For example: local population that is pro windfarms, shares another argument with both NGOs and National government, and one argument with only National government. The same applies to the local population against the windfarm installation: they share somewhat fewer arguments with the Local government and Protest groups. The connections are thus less strong. This is even more true for the Local economy regarding the Local government and Protest groups coalition. They share one argument. This is however the most important argument for the Local economy: the damages done to fishery and tourism.

Notably, the coalitions are defined by the proponents and opponents of the windfarm installation in the 12-mile zone. As both proponents and opponents share some storylines among themselves and oppose each other's arguments, this is to be expected.

Figure 4 shows the discourse coalitions, in which yellow to red represents the strength of the ties. Hajer (1995) says that a power of discourse coalitions lies in the diversity of layers: political, cultural and economic entities, sharing a discourse. This comes back in the broadest discourse coalitions that are depicted: on the proponents' side there is government, NGOs and pro-local population and on the opponents' side there is government, activist initiatives, economic entities and against-local population. This strengthens the storyline of that coalition.
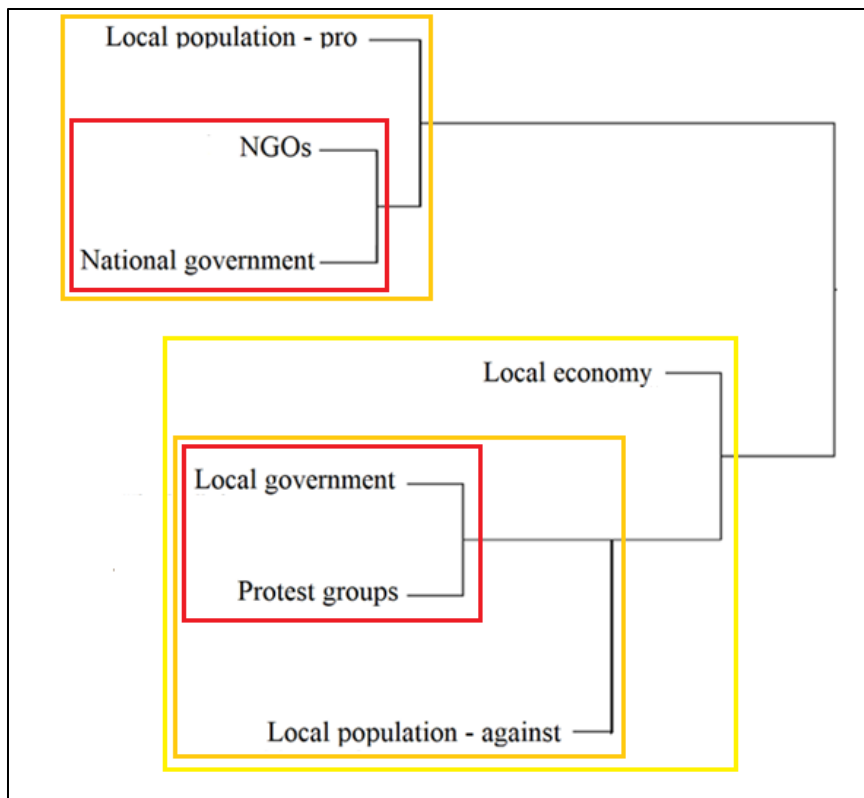
Figure 4: cluster dendrogram with discourse coalitions, made in rDNA.

For this research these broadest categories of coalitions are used, as this creates a clear division between all stakeholders. The storylines of these coalitions are given in Table 2, based on the arguments used arranged by frequency.

Discourse coalition	Discourse
Proponents (National government, NGOs and Local population)	Generating renewable energy is most important. Some sacrifices need to be made and can be dealt with, like the local economy, and flora and fauna.
Opponents (Local government, Protest groups, Local population and Local economy)	Local sacrifices that need to be made in order to install the windfarms are too high, including the installation costs. The alternative IJmuiden Ver is more profitable and keeps the clean horizon, local economy and flora and fauna intact.

Table 2: discourses of the major discourse coalitions.

Differences between coalitions

The differences between the two coalitions seem to be twofold. Firstly, there is disagreement on the prioritization of different stakes. Proponents tend to prioritize renewable energy and Paris Agreement targets above the local setbacks, whereas opponents prioritize vice versa. Opponents however do find renewable energy is important, they simply do not want it in the North Sea within the 12-mile zone.

The second disagreement is more on facts from research: what the windmills would look like from the beach, what the influence on local economy would be, and what the costs of the installation will amount to. The coalitions disagree on these topics. Within their communication towards the public, both coalitions made research reports and visualizations that contradict each other. Both visualizations are depicted in Image 1. Also, opponents used reports that said tourism would drop by 17 to 20 percent, whereas the national government's report estimated 0 to 10 percent (Trommelen, 2016a). Besides, the two coalitions have differentiating researches on the costs: opponents say that IJmuiden Ver might even be cheaper than Hollandse Kust, whereas the national government estimates it to be 1.6 billion euros more expensive (Dekker, 2016).
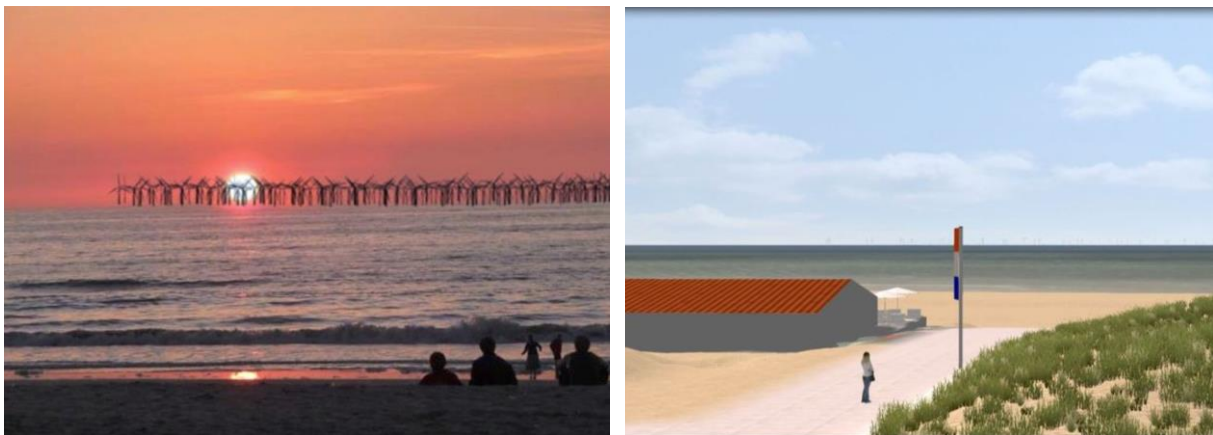
Image 1: visualizations of the protest group (left) and national government (right) (Trommelen, 2016b)

Levels of debates among coalitions

Apart from these disagreements, another outstanding observation is the different levels of debate among the two coalition groups. Figure 5 depicts a two-mode network. In this network, the different arguments (both agreement and non-agreement) are presented as grey squares and the different stakeholders are presented in red and green ellipses. When stakeholders comment on an argument (agreement or not), an arrow is drawn. By this, the network shows what concepts are discussed by which stakeholders.

To get a better picture of the importance of these arguments for the stakeholders, the two-mode network is also depicted in Table 3 in which the amount of times a certain argument is made is counted. This shows the weight of the arguments for the stakeholders. From this, the stakeholders that prioritize certain arguments – either in favor or against – both show a high frequency and thus mostly interact with each other.

Firstly, it shows that disagreements regarding the threats to the local economy and harmfulness to aquatic and aerobic life are mainly mentioned by the Local economy and NGOs. Many other stakeholders mention the threats to local economy, but it is not their main argument, whereas it is a dominant argument for both Local economy and NGOs.

Secondly, the National government seem to disagree on the threat of visual pollution and expenses of IJmuiden Ver with the Local government and Protest groups, and also on suffering of the

local economy. These are the very topics on which the discourse coalitions have diversifying evidence, as was mentioned earlier. As the research reports were issued by the national government in the pro-coalition and by the local government and protest groups together in the con-coalition, this disagreement makes sense.

Figure 5 also shows some arguments that are only made by one stakeholder or by one stakeholder coalition. This indicates a lack of debate regarding those arguments. It concerns the following arguments: 'Offshore windfarms create more costs than revenues', agreed on by opposing local population; 'Local livelihood is sufficiently considered by the national government', disagreed on by protest groups; and 'The installation of windfarms is more important than the setbacks to local economy or visual pollution' agreed on by the national government and local population that is pro.

As the arguments 'Local livelihood is not sufficiently considered' and 'Installation is of windfarms is more important than the setbacks to local economy or visual pollution' both discuss the prioritization of purposes, it could be reasoned that these contradict one another and thus represent a discussion regarding importance of stakes.

The argument of 'Offshore windfarms create more costs than revenues' is not objected, however. This is an argument that is often used by opposing local population. Van Klaveren, an anthropologist who investigated local populations in Katwijk regarding this subject, compares this storyline to a myth, as no one knows the origin of the argument and no one is able to provide evidence (De Grood, 2016).
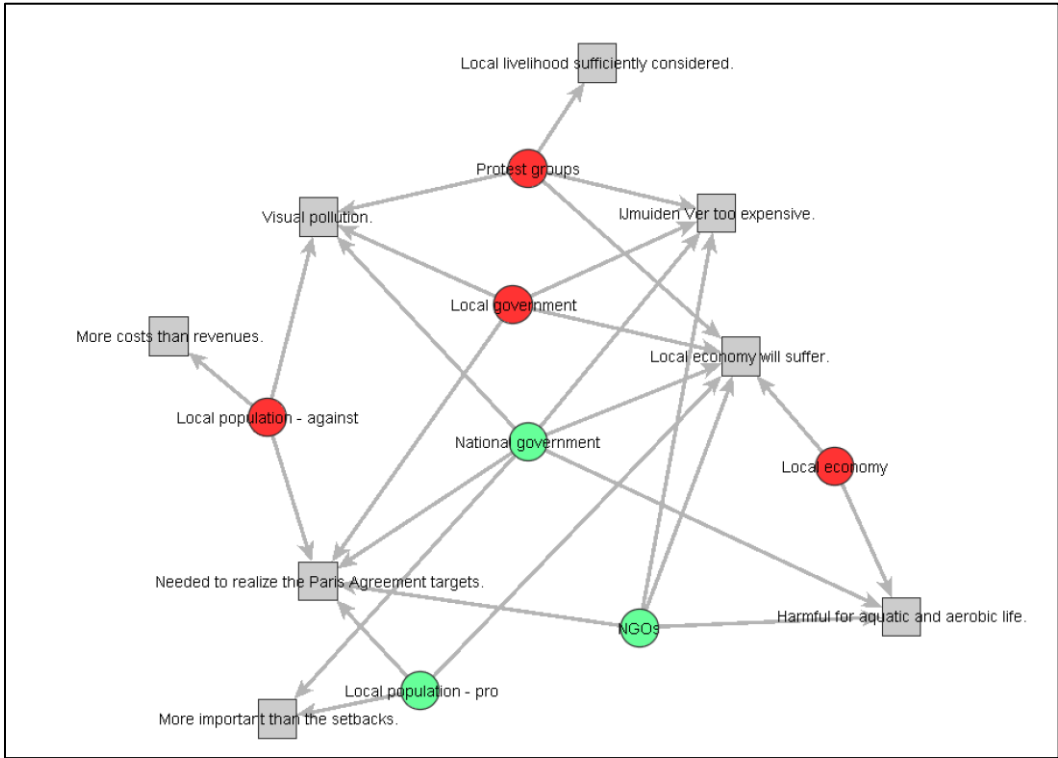
Figure 5: two-mode network showing levels of debate, made in Visone.

	Local economy	Local government	Local pop (con)	Local pop (pro)	NGOs	National government	Protest groups
Ijmuiden Ver too expensive.	0	1	0	0	1	1	4
Local livelihood sufficiently considered.	0	0	0	0	0	0	2
Harmful for aquatic and aerobic life.	2	0	0	0	1	2	0
More costs than revenues.	0	0	3	0	0	0	0
Visual pollution.	0	2	6	0	0	2	2
Needed to realize Paris Agreement targets.	0	2	3	1	1	2	0
More important than setbacks.	0	0	0	3	0	1	0
Local economy will suffer.	6	1	0	1	3	1	2

Table 3: quantities arguments used by stakeholders, made in Excel.

Structuration of discourses

To understand the influence that discourse coalitions and their discourses have, the amount of structuration will be assessed. Structuration displays the extent to which a discourse is dominant in the debate and in the media.

Most of the most read national papers of the Netherlands have reported on the topic of windfarm installations in the North Sea. For each of these papers, articles were selected and analyzed. They were compared to the two main discourses, which are shown in Table 2. If an article was mainly focused on the importance of renewable energy, the proponents' discourse was selected as the dominant discourse. An article could still describe the opponents' arguments but present them as possible objections to the eminent goal of renewable energy. If an article focused on the local sacrifices, either economic, visual or regarding flora and fauna, the opponents' discourse was selected as the dominant discourse. These articles could still mention the alternative discourse, and if they did, this was also counted. As only articles were used that positioned themselves regarding the matter, there was a limited number of articles per newspaper. This created the following table, which is further set out in Appendix 6:

Newspaper	Dominant discourse		Mentioned other discourse
	Proponents	*Opponents*	
Metro		3	1
Telegraaf		3	
AD	2	2	1
Volkskrant	4		2
NRC	4		3
De Trouw	2	2	2
Totals	*12*	*10*	

Table 4: dominant discourses in most read papers in the Netherlands

The table shows that both discourses are represented in the most read newspapers. The proponents' discourse is however more dominant than the opponents' discourse.

This indicates that the discourse of the proponents, giving more priority to the renewable energy goals than to potential local setbacks, is mostly represented in the researched news articles. The debate is mainly hinged on the proponents' discourse and the opponents' discourse supplies context. This is however a subtle dominance, as the opponents' discourse is also dominant in many cases. There is thus not one clear dominant discourse when it comes to structuration. Both discourses were picked up in media.

Institutionalization of discourses

The institutionalization can be measured by the correspondence between discourses and the chosen policies. In this case, the policy that was chosen was the installation of the windmills in the 12-mile zone (Ministerie I&W, 2015). Reasons to do so were the importance of renewable energy and the necessity to use offshore wind energy to reach the targets. This matches the discourse of the proponents' coalition. As the *nationaal waterplan* elaborates on permanent building in the 12-mile zone, saying it can only be done if there are no realistic alternatives; no harm is done to coastal protection; and the activities are of national value, it can be assumed that the government deems these conditions to be met. Opponents give multiple arguments concerning the – in their opinion – realistic alternative of IJmuiden Ver, other renewable energy alternatives and the costs being higher than the benefits, which have not been translated into the policy. This shows that no dominance on their account can be found within the *nationaal waterplan*.

Before the construction of the windfarm, multiple lawsuits were started by the opponents, but the *Raad van State*, the highest general administrative judgeship in the Netherlands, deemed the arguments untrue. They stated that economic damages were small, flora and fauna would not be harmed, and plenty of fishing ground would remain (Omroep West, 2019). The arguments that the *Raad van State* seems to agree with are the ones held by the proponents' coalition.

Therefore, the dominant discourse regarding institutionalization is the discourse that is provided by the proponents of offshore windfarms in the 12-mile zone.

Discussion

Conflicts about knowledge

The Results have shown a twofold of conflicts: those on knowledge produced and those on prioritization. The difference in knowledge that is produced is an important indicator of very contrasting discourse coalitions (Hajer, 1995). Hajer (1995) states that knowledge that is produced within the stakeholder coalition empowers individual stakeholders that only have few interests and hold little power by themselves. Knowledge thus forges a connection between stakeholders that creates a stronger discourse coalition. Also, in this case, the fact that the presented researches directly oppose each other creates a dichotomy of coalitions in which both coalitions frequently hold on to their own created knowledge and research.

This clash of knowledge bases is a good example of the various uses of science-policy interface (SPI), which encompasses the creation of the knowledge through research and the translation to policy. Van Ernst et al. (2014) show how the interaction between science and policy can be problematized by the 'structuredness of the policy problem in terms of certainty of knowledge and consensus about norms and values'. This seems to match the problems of differing knowledge and differing priorities respectively in this case. Van Ernst et al. (2014) name an SPI called 'process of participatory knowledge development' as a solution, in which different stakeholders create knowledge together, to prevent conflicting knowledges from different researches.

Conflicts about prioritization

The concept of multiple discourse coalitions, like Hajer (1995) introduced, seems to be evident in the case of the offshore windfarm installation near Katwijk. The presented storylines differ both on prioritization and on the knowledge base they base their facts on. As the conceptual framework in Figure 1 shows, discourses are shaped by the social construct of the stakeholder. As they only communicate their storylines, their social construct can only be guessed. The prioritization of local sacrifices versus national benefits that offshore windfarms establish probably has its roots in this social construct. It can easily be imagined that a local citizen, whether in local government, protest groups, local economy or just as member of the local population, values the sea intrinsically in a way that members of national governments do not.

A similarity between almost all individuals that make up the stakeholders within the opponents' coalition is thus that they live near the coast. This indicates a potential worry of locals regarding *NIMBY* (not in my backyard), with the North Sea being the backyard of locals. Research discusses that NIMBY is not the main problem in cases like these (Devine-Wright & Howes, 2010; Haggett, 2011). Haggett (2011) shows that these sorts of projects touch the perception of identity and character of a place. The distance from one's house to the coast makes no difference in the perception of windmills: still the setbacks are perceived as very important, as locals value the sea intrinsically high. According to Devine-

Wright (2011), within a policy field where public participation is valued, if local opinions are included too late in the process, participation induces only more opposition. It is then assumed that this opposition is due to NIMBYism, instead of the arguments being fairly analyzed. This is a cycle that is difficult to break, as shown in figure 6.

Devine-Wright (2011) does propose a solution to break the cycle specifically for large-scale renewable energy projects like offshore windfarms. From the planning onward, the local distinctiveness and historical continuity need to be identified and taken into account in the development process. In this way, consensus can be built from the start.
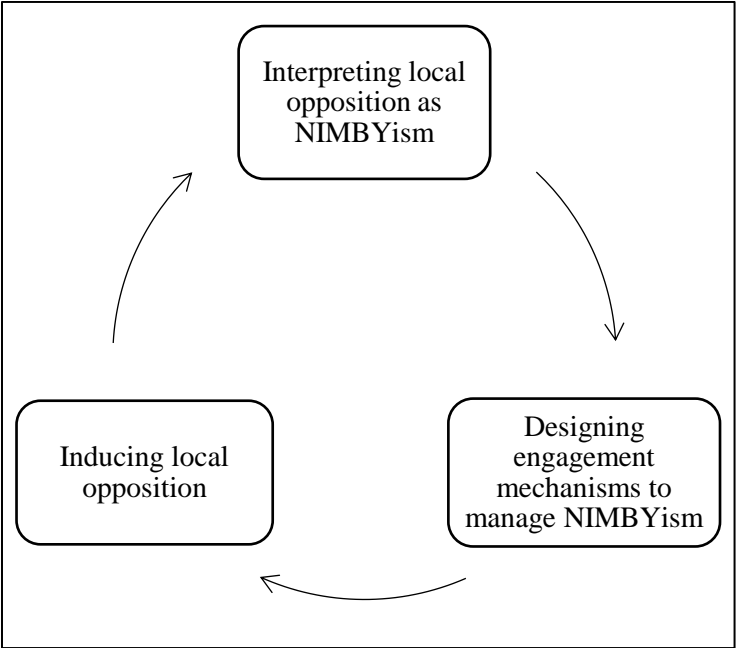
Figure 6: NIMBY-cycle (Devine-Wright, 2011)

Current politics of offshore wind

Currently, politics of offshore windfarm installations are mainly focused on the necessity of the farms (Haggett, 2008): onshore windfarms create problems that offshore windfarms do not. No research shows any objections from the local population as long as the windfarms are not visible (Wieczorek et al., 2013). When the windmills are visible, the situation is problematized by the imbalance that Haggett (2008) investigated regarding the push for offshore wind versus a thorough investigation of impacts. In recent years the United Kingdom has been able to establish this balance, whereas the Netherlands has not, likely because of the radicality of this innovation in the Netherlands (Kern et al., 2015). As the *nationaal waterplan* was an erratic change, because the Netherlands were less focused on renewable energies before (Verhees et al., 2015), the impacts might not have been thoroughly assessed.

In literature regarding offshore wind policies, it is often discussed, as is also shown earlier in the Discussion, that some form of participation should take place from the beginning (Wolsink, 2010; Aitken, Haggett & Rudolph, 2016). This research shows that the opposing stakeholders in Katwijk often

did not feel considered and did not have the perception that they could really participate. Instead of constructive engagement, their fight was fought through protests, lawsuits and incendiary letters to the national government.

As part of the criticism of opponents is experienced only by the local community, these discourses might have had smaller odds of becoming dominant through structuration, which is possibly an explanation for the dominance of the proponents as to institutionalization as well.

Implications

This research shows the importance of resolving the conflict regarding SPI and understanding all priorities that are given within the policy-making process in due time before the finalization of the project (Wolsink, 2010; Devine-Wright, 2011; Van Ernst et al, 2014). This means that participation in an early stage is useful, before discourses are formed which are contrasting and the stakes get unbridgeable and at a point where knowledge can be created in co-existence. After this point it seems that dominance is sought through focusing on the conflicting discourses instead of coming closer.

The hostility that the discourse coalitions have expressed to one another in this case has been highly unbeneficial to the policy process, because of multiple lawsuits and large protests.

As this discourse analysis focused on offshore windfarm installation, these implications are useful to similar cases in the Netherlands, or even Europe, depending on the likeness of the situated discourses. As the *nationaal waterplan* of the Netherlands intends more offshore windfarms, taking these discourse formations into account, and acting upon them as early as possible in the process, could help prevent opposing discourse coalitions and instead create communication among the stakeholders.

The timely involvement of all stakeholders and analysis of discourses presented should be a decisive component in the policy or should be done more qualitatively in the environmental impact assessments done for similar renewable energy projects; and strategic impact assessments for similar policies.

Limitations

Due to the scale of this research, some limitations occurred. First, some stakeholders were put together, like NGOs and Local economy. The results could have been more nuanced, if these were to be split up.

Secondly, the sources for statements and arguments were limited: they were either newspaper articles or Facebook-posts. It was impossible to find videos of debates or conversations that were held between stakeholders. More data in different forms could have provided a more complete image of the discourses and discourse coalitions.

Furthermore, the structuration was only done by newspaper articles, whereas general debates would have also been interesting, but here also sources were scarce. More investigation into the public debate could thus enrichen the outcome of this research.

Conclusion

This article has tried to investigate the influences of different discourse coalitions in the policy-making process, specifically for offshore windfarms in front of the Dutch municipality Katwijk. As protests had come up from different segments of society – local economy, the local government and the regular public – the development process was slowed down by lawsuits and protests. Meanwhile little was known on the influences of discourse coalitions in a case like this, where uncertainty and misunderstanding created hostile arguments.

Therefore, the question that was asked, was: to what extent have various discourse coalitions influenced the development of offshore windfarms in the North Sea in front of Katwijk? To answer this, first the stakeholders and their specific discourses were assessed. Then, by using the discourse network analyzer, two discourse coalitions were identified: the proponents (National government, NGOs and Pro-local population) and the opponents (Local government, Protest groups, Local economy and Con-local population). The discourses they maintained were very dichotomous. Whereas the proponents believed that renewable energy was the highest priority and had research showing that the local setbacks of offshore windfarms would be limited, the opponents prioritized their local livelihood and objected the proponents' research with their own contrasting research, showing the impact of the windfarms on the economy, nature and the horizon.

Hereafter, by means of structuration and institutionalization the influences of the discourses were investigated. Structuration shows that both discourses were represented in the large newspapers of the Netherlands, which indicates that both were weighed in the public debate. However, in the institutionalization a clear dominance and influence of the proponents' discourse coalition is visible, as their stance has been implemented into policy.

This research has thus shown that the two discourse coalitions, the proponents and the opponents, had strong opposing discourses that clashed regarding prioritization and knowledge creation. The proponents of the offshore windfarms have had their discourse being institutionalized, indicating that their discourse had most dominance. Both discourses however were represented in national media, which gave them both dominance through structuration.

While a discourse analysis is a useful tool to create insight into the different storylines regarding a subject, this research also shows the hostility that existed between both discourse coalitions. As the subject is a renewable energy project, and all stakeholders are essentially in favor of renewable energy, this necessity of this hostility is questionable. Earlier research has shown the importance of timely involvement of all stakeholders (Wolsink, 2010; Devine-Wright, 2011; Van Ernst et al, 2014) and the risk of perceived NIMBYism and the resulting hostility if this is not done in time (Devine-Wright, 2011). This research has shown a case in which precisely those mechanisms took place and the disadvantages that arose from them. As it also showed the influences that discourses can have through media and policy, it provides extra motivation, to align discourses, so that discourses can be unified and conflicts regarding the offshore windfarm installation in the 12-mile zone can be minimalized.

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Appendices

Appendix 1: event list containing all coded texts (with shortened texts and concepts). Non-agreement: 0, Agreement: 1.

time	document title	source	type	text	person	organization	Concept (argument)	agreement
12-5-2015	Ver-zet tegen windmolens	Alles over Katwijk	Article	Een mega windturbinepark (…) toerisme gerichte economie.	Danielle Brink	Protest groups	The local economy will suffer.	1
12-5-2015	Ver-zet tegen windmolens	Alles over Katwijk	Article	Het ver-plaatsen van (…) voor onze kustgemeentes	Danielle Brink	Protest groups	IJmuiden Ver too expensive.	0
30-5-2015	Je bent een kattuker als... 1	Facebook	Social media	Omdat de zon (…) van windmolens kijken	Ron van Dijk	Local population - against	Visual pollution.	1
30-5-2015	Je bent een kattuker als... 1	Facebook	Social media	Waarom is er (…) meer milieu vervuiling.	Samuel Duyvenvoorde	Local population - pro	Installation more important than damages.	1
30-5-2015	Je bent een kattuker als... 1	Facebook	Social media	Dat ziet er (…) dat het opbrengt.	Jeannette Peak-Varkevisser	Local population - against	Visual pollution.	1
30-5-2015	Je bent een kattuker als... 1	Facebook	Social media	Dat gelul van (…) deze krengen nodig	Ron van Dijk	Local population - against	More costs than revenues.	1
30-5-2015	Je bent een kattuker als... 1	Facebook	Social media	Er komen er (…) geld en smaak.	Nico Schuitemaker	Local population - against	Visual pollution.	1
30-5-2015	Je bent een kattuker als... 1	Facebook	Social media	geen wind molens (…) milieu vervuiling van	Leo Klinkenberg	Local population - against	More costs than revenues.	1
30-5-2015	Je bent een kattuker als... 1	Facebook	Social media	Al dat gezeik (…) dus die dingen.	William van der Plas	Local population - pro	Installation more important than damages.	1

30-5-2015	Je bent een kattuker als... 2	Facebook	Social media	Windmolens kosten meer (…) dat ter zijde.....	Sander Vlieland	Local population - against	More costs than revenues.	1
30-5-2015	Je bent een kattuker als... 2	Facebook	Social media	Vooruitzien zou de (…) deze uitontwikkelde windmolens.	Gert van Duijn	Local population - against	Needed to realize Paris Agreement targets.	0
30-5-2015	Je bent een kattuker als... 2	Facebook	Social media	Die windmolens gaan (…) Noordzee er vol mee.	Gert Schuurman	Local population - against	Needed to realize Paris Agreement targets.	0
2-7-2015	Groeten uit een 'gehekt' Katwijk	Katwijksche Post	Article	Hij zei dat (…) economie en werkgelegenheid.	Jos Wienen	Local government	The local economy will suffer.	1
13-8-2015	'Molenonderzoek curieus", Tegenstanders windmolenparken niet overtuigd door studie onder Duitsers	Leidsch Dagblad	Article	Heel curieus', zo (…) het te betwijfelen."	Michiel van den Berg	Local economy	The local economy will suffer.	1
13-8-2015	Duitsers malen niet om molens voor de kust	Leidsch Dagblad	Article	De angst dat (…) bij Natuur & Milieu.	Olof van der Gaag	NGOs	The local economy will suffer.	0
19-8-2015	Windmolens op zee geen probleem voor toeristen'	Katwijks Nieuwsblad	Article	Directeur campagnes van (…) de Duitse toerist.	Olof van der Gaag	NGOs	The local economy will suffer.	0
23-12-2015	Kustgemeenten zien hun gelijk in klimaattop Parijs	Katwijks Nieuwsblad	Article	Het is onder (…) de laatste plaats.'	Gerard Kuipers	Local government	Needed to realize Paris Agreement targets.	0
23-12-2015	Kustgemeenten zien hun gelijk in klimaattop Parijs	Katwijks Nieuwsblad	Article	De gemeenten erkennen (…) dit bedrag overbrugbaar.	Gerard Kuipers	Local government	IJmuiden Ver too expensive.	0
5-1-2016	Bij windmolens is de verbeelding aan de macht	Volkskrant	Article	Maar op een (…) dan windmolens gezien.'	Bert van der Meij	Protest groups	Visual pollution.	1

6-1-2016	Wienen: 'Behoud de unieke horizon', Burgemeesters kustdorpen pleiten in nieuwjaarstoespraken voor windmolens in IJmuiden Ver	Leidsch Dagblad	Article	In zijn nieuwjaarstoespraak (…) soort kermisknipperverlichting"	Jos Wienen	Local government	Visual pollution.	1
6-1-2016	Wienen: 'Behoud de unieke horizon', Burgemeesters kustdorpen pleiten in nieuwjaarstoespraken voor windmolens in IJmuiden Ver	Leidsch Dagblad	Article	Arend Meerburg, voorzitter (…) zondag, aldus Meerburg.	Arend Meerburg	Local population - pro	The local economy will suffer.	0
4-2-2016	Greenpeace niet overtuigd door plannen voor windmolens op 60 kilometer uit de kust	Omroep West	Article	Volgens voorzitter van (…) meer megawatt op.	Pieter Jan Barnhoorn	Protest groups	IJmuiden Ver too expensive.	0
4-2-2016	Greenpeace niet overtuigd door plannen voor windmolens op 60 kilometer uit de kust	Omroep West	Article	Joris Wijnhoven van (…) tegen Omroep West.	Joris Wijnhoven	NGOs	IJmuiden Ver too expensive.	1
4-2-2016	Greenpeace niet overtuigd door plannen voor windmolens op 60 kilometer uit de kust	Omroep West	Article	Over smaak valt (…) op daken liggen.'	Joris Wijnhoven	NGOs	Needed to realize Paris Agreement targets.	1
2-6-2016	Vechten tegen windmolens	Leids Universitair Weekblad Mare	Article	Dat is nog (…) ziet als avondslag.	Anonymous lady	Local population - against	Visual pollution.	1
2-6-2016	Vechten tegen windmolens	Leids Universitair Weekblad Mare	Article	Als ik een (…) ervoor ziet staan?	Anonymous person	Local population - against	Visual pollution.	1
2-6-2016	Vechten tegen windmolens	Leids Universitair Weekblad Mare	Article	Windmolens zijn de toekomst (…) parkeerplaats voor boten.'	Anonymous person	Local population - pro	Installation more important than damages.	1

24-8-2016	Laatste protest tegen enorme windmolens dichtbij de kust	Katwijks Nieuwsblad	Article	Half september hebben (…) een presentatie gehouden.	Nicoline Schuitemaker	Protest groups	IJmuiden Ver too expensive.	0
24-8-2016	Laatste protest tegen enorme windmolens dichtbij de kust	Katwijks Nieuwsblad	Article	De teruglopende inkomsten (…) aldus wethouder Knape.	Jacco Knape	Local government	Needed to realize Paris Agreement targets.	0
15-9-2016	Welles-nietes rondom windmolens voor de kust	FluxEnergie	Article	Een windmolenpark op (…) (60 kilometer van de kust).	Opposanten	Protest groups	IJmuiden Ver too expensive.	0
15-9-2016	Welles-nietes rondom windmolens voor de kust	FluxEnergie	Article	Alle beschikbare locaties (…) zee te realiseren.'	NWEA	National government	Needed to realize Paris Agreement targets.	1
15-12-2016	Katwijk raakt vrij uitzicht kwijt	Katwijksche Post	Article	Heel jammer.' Nicoline (…) op tegen waren.'	Nicoline Schuitemaker	Protest groups	Local livelihood sufficiently considered.	0
15-12-2016	Katwijk raakt vrij uitzicht kwijt	Katwijksche Post	Article	een volgens de (…) vaak te zien.	Jacco Knape	Local government	Visual pollution.	1
15-12-2016	Katwijk raakt vrij uitzicht kwijt	Katwijksche Post	Article	Ze hebben een (…) klinkt het verontwaardigd.	Nicoline Schuitemaker	Protest groups	Local livelihood sufficiently considered.	0
2-6-2018	Vissers vechten voor plek op zee	Trouw	Article	de windmolens, waartussen (…) een loze belofte.	Johan Nooitgedagt	Local economy	The local economy will suffer.	1
2-6-2018	Vissers vechten voor plek op zee	Trouw	Article	En Boskalis sponsort (…) voor de vissers'.	Floris van Hest	NGOs	The local economy will suffer.	0
14-2-2019	Katwijkse rederij blijft vechten tegen windmolens op zee	Katwijksche Post	Article	De rederij maakt (…) de planning staan.	Rederij J. van der Plas	Local economy	The local economy will suffer.	1

14-2-2019	Katwijkse rederij blijft vechten tegen windmolens op zee	Katwijksche Post	Article	De rederij is (…) in de windmolengebieden.	Rederij J. van der Plas	Local economy	Harmful for aquatic and aerobic life.	1
14-2-2019	Katwijkse rederij blijft vechten tegen windmolens op zee	Katwijksche Post	Article	Een reden daarvoor (…) onderhoud kost minder.	Ministeries EZ en I&M	National government	IJmuiden Ver too expensive.	1
14-2-2019	Katwijkse rederij blijft vechten tegen windmolens op zee	Katwijksche Post	Article	De ministeries hadden (…) verwaarloosbaar klein zijn.	Ministeries EZ en I&M	National government	Harmful for aquatic and aerobic life.	0
14-2-2019	Katwijkse rederij blijft vechten tegen windmolens op zee	Katwijksche Post	Article	De Raad vond (…) vond de Raad.	Raad van State	National government	Visual pollution.	0
14-2-2019	Tegenstanders willen windmolens in zee voorkomen: 'Mensen willen de zon onder zien gaan'	Omroep West	Article	Je gaat een (…) een goede benaming	Albert Korper	Protest groups	Visual pollution.	1
14-2-2019	Tegenstanders willen windmolens in zee voorkomen: 'Mensen willen de zon onder zien gaan'	Omroep West	Article	Ik heb gehoord (…) minder toeristen komen.	Jan Klinkenberg	Local economy	The local economy will suffer.	1
15-2-2019	Emotioneel betoog visser tegen windmolens	Leidsch Dagblad	Article	Met het plaatsen (…) de nodige emotie.	J. van der Plas	Local economy	The local economy will suffer.	1
15-2-2019	Emotioneel betoog visser tegen windmolens	Leidsch Dagblad	Article	Zo berekende Albert (…) op een stroomkabel.'	Albert Korper	Protest groups	The local economy will suffer.	1
15-2-2019	Emotioneel betoog visser tegen windmolens	Leidsch Dagblad	Article	De overheid zegt (…) te kunnen voldoen.	Overheid	National government	Needed to realize Paris Agreement targets.	1
4-3-2019	College brengt bedrijfsbezoek aan visbedrijven in IJmuiden	Katwijks Nieuwsblad	Article	Naast het feit (…) andere zeestromingen teweeg.	Roos van Duijn	Local economy	Harmful for aquatic and aerobic life.	1

14-4-2019	Je bent een kattuker als... 3	Facebook	Social media	Er zijn door (…) men dit niet.	Jacques Zwaan	Local population - against	Needed to realize Paris Agreement targets.	0
14-4-2019	Je bent een kattuker als... 3	Facebook	Social media	Horizontale vervuiling	Koos van der Plas	Local population - against	Visual pollution.	1
14-4-2019	Je bent een kattuker als... 3	Facebook	Social media	Stijging van de (…) van de zeespiegel!	Quinta de Leeuw	Local population - pro	Needed to realize Paris Agreement targets.	1
17-4-2019	Groen licht voor windmolens voor de kust	RTV Katwijk	Article	De Raad van (…) aanrichten, gering is.	Raad van State	National government	The local economy will suffer.	0
17-4-2019	Groen licht voor windmolens voor de kust	RTV Katwijk	Article	Volgens een onderzoek (…) beperkt moeten zijn	Eric Wiebes	National government	Visual pollution.	0
17-4-2019	Windmolens voor Zuid-Hollandse kust krijgen groen licht van Raad van State	Omroep West	Article	De Raad verwijst (…) de toeristische sector.	Raad van State	National government	Installation more important than damages.	1
17-4-2019	Windmolens voor Zuid-Hollandse kust krijgen groen licht van Raad van State	Omroep West	Article	De windmolens liggen (…) vogels te beschadigen	Raad van State	National government	Harmful for aquatic and aerobic life.	1
16-5-2019	Nieuwe onderwaternatuur bij windparken op zee	NOS	Article	Er komen steeds (…) denken de initiatiefnemers.	Dorien Akkerman (Natuur & Milieu)	NGOs	Harmful for aquatic and aerobic life.	0
16-5-2019	Nieuwe onderwaternatuur bij windparken op zee	NOS	Article	De vissers zijn (…) meeste windmolenparken gebouwd.'	Job Schot	Local economy	The local economy will suffer.	1

Stakeholder	Arguments used	Agreement	Stakeholder discourse
Local government	The local economy will suffer from the offshore windfarm in the 12-mile zone.	Agreement	Due to unbeneficial circumstances for the local economy and livability, windfarms should not be placed in the 12-mile zone, but in the alternative Ijmuiden Ver instead. This would even be beneficial financially.
	Offshore windfarms in the 12-mile zone are visual pollution.	Agreement	
	The installation of windfarms in the 12-mile zone is needed to realize the Paris Agreement targets.	Non-agreement	
	Alternative Ijmuiden Ver is too expensive to consider.	Non-agreement	
National government	Alternative windfarm IJmuiden Ver is too expensive to consider.	Agreement	As offshore wind energy is needed to realize the Paris Agreement targets, this development is of great importance; even more so than the local disadvantages. Furthermore, most remarks made by opposing parties are untrue.
	The installation of windfarms in the 12-mile zone is needed to realize the Paris Agreement targets.	Agreement	
	The installation of windfarms is more important than the damages to local economy or visual pollution.	Agreement	
	Offshore windfarm installation in the 12-mile zone is harmful for aquatic and aerobic life.	Non-agreement	
	Offshore windfarms in the 12-mile zone are visual pollution.	Non-agreement	
	The local economy will suffer from the offshore windfarm in the 12-mile zone.	Non-agreement	
Protest groups	Offshore windfarms in the 12-mile zone are visual pollution.	Agreement	Offshore windfarms are unbeneficial to the entire local livability and that is insufficiently acknowledged by the national government.
	The local economy will suffer from the offshore windfarm in the 12-mile zone.	Agreement	
	Alternative windfarm IJmuiden Ver is too expensive to consider.	Non-agreement	
	Local livelihood is sufficiently considered by the national government.	Non-agreement	
	The local economy will suffer from the offshore windfarm in the 12-mile zone.	Agreement	

Local economy	Offshore windfarm installation in the 12-mile zone is harmful for aquatic and aerobic life.	Agreement	Offshore windfarms harm the local economy and the flora and fauna, which are important to the local economy.
Local population (pro)	The installation of windfarms in the 12-mile zone is needed to realize the Paris Agreement targets.	Agreement	Creating renewable energy is the most important objective in the debate: some local sacrifices need to be made to realize the Paris Agreement targets.
	The installation of windfarms is more important than the damages to local economy or visual pollution.	Agreement	
	The local economy will suffer from the offshore windfarm in the 12-mile zone.	Non-agreement	
Local population (against)	Offshore windfarms create more costs than revenues.	Agreement	Offshore wind energy is highly beneficial to the local livability. Besides, it is not the most efficient form of renewable energy, as it costs more than it yields. Therefore, other forms of renewable would be better.
	Offshore windfarms in the 12-mile zone are visual pollution.	Agreement	
	The installation of windfarms in the 12-mile zone is needed to realize the Paris Agreement targets.	Non-agreement	
NGOs	Alternative windfarm IJmuiden Ver is too expensive to consider.	Agreement	Offshore wind energy is needed fast. Therefore the 12-zone mile location needs to be used. Damages to the flora and fauna and local economy are limited.
	The installation of windfarms in the 12-mile zone is needed to realize the Paris Agreement targets.	Agreement	
	Offshore windfarm installation in the 12-mile zone is harmful for aquatic and aerobic life.	Non-agreement	
	The local economy will suffer from the offshore windfarm in the 12-mile zone.	Non-agreement	

Appendix 3: overview sources

Title	Source	Type source	Date
Ver-zet tegen windmolens	Alles over Katwijk	Local news article	12-5-2015
Je bent een kattuker als... 1	Facebook	Social media outlet	30-5-2015
Je bent een kattuker als... 2	Facebook	Social media outlet	30-5-2015
Je bent een kattuker als... 3	Facebook	Social media outlet	14-4-2019
Welles-nietes rondom windmolens voor de kust	FluxEnergie	National news article	15-9-2016
College brengt bedrijfsbezoek aan visbedrijven in IJmuiden	Katwijks Nieuwsblad	Local news article	4-3-2019
Kustgemeenten zien hun gelijk in klimaattop Parijs	Katwijks Nieuwsblad	Local news article	23-12-2015
Laatste protest tegen enorme windmolens dichtbij de kust	Katwijks Nieuwsblad	Local news article	24-8-2016
Windmolens op zee geen probleem voor toeristen'	Katwijks Nieuwsblad	Local news article	19-8-2015
Groeten uit een 'gehekt' Katwijk	Katwijksche Post	Local news article	2-7-2015
Katwijk raakt vrij uitzicht kwijt	Katwijksche Post	Local news article	15-12-2016
Katwijkse rederij blijft vechten tegen windmolens op zee	Katwijksche Post	Local news article	14-2-2019
Weekblad Mare - Vechten tegen windmolens	Leids Universitair Weekblad Mare	Regional news article	2-6-2016
Duitsers malen niet om molens voor de kust	Leidsch Dagblad	Regional news article	13-8-2015
Emotioneel betoog visser tegen windmolens	Leidsch Dagblad	Regional news article	15-2-2019
'Molenonderzoek curieus", Tegenstanders windmolenparken niet overtuigd door studie onder Duitsers	Leidsch Dagblad	Regional news article	13-8-2015
Wienen: "Behoud de unieke horizon", Burgemeesters kustdorpen pleiten in nieuwjaarstoespraken voor windmolens in IJmuiden Ver	Leidsch Dagblad	Regional news article	6-1-2016

Nieuwe onderwaternatuur bij windparken op zee	NOS	National news article	1-9-2018
Greenpeace niet overtuigd door plannen voor windmolens op 60 kilometer uit de kust	Omroep West	Regional news article	4-2-2016
Tegenstanders willen windmolens in zee voorkomen: 'Mensen willen de zon onder zien gaan'	Omroep West	Regional news article	14-2-2019
Windmolens voor Zuid-Hollandse kust krijgen groen licht van Raad van State	Omroep West	Regional news article	17-4-2019
Groen licht voor windmolens voor de kust	RTV Katwijk	Local news article	17-4-2019
Vissers vechten voor plek op zee	Trouw	National news article	2-6-2018
Bij windmolens is de verbeelding aan de macht	Volkskrant	National news article	5-1-2016

Source usage

Local news article   Social media outlet   National news article   Regional news article
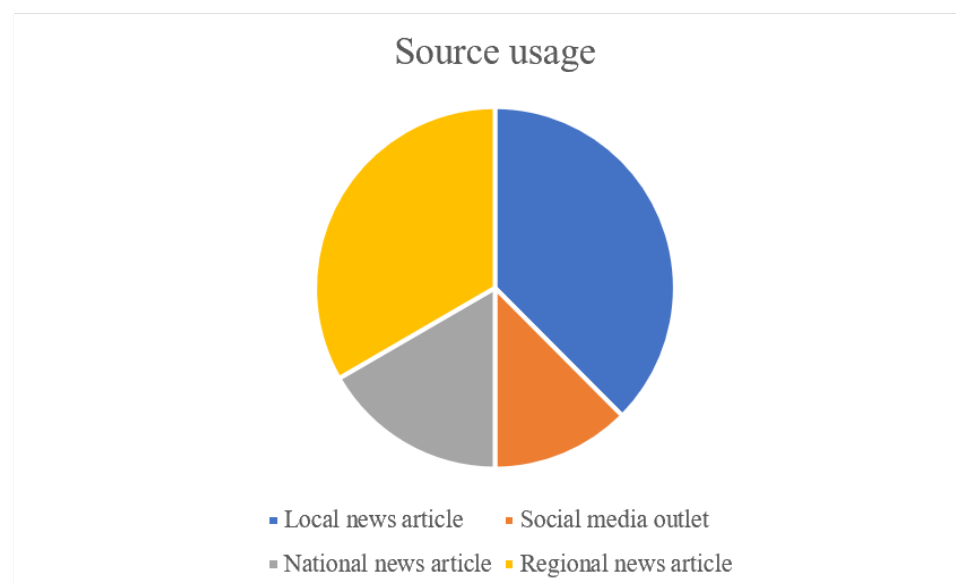
Appendix 4: cluster dendrogram with statements

Local population - pro
- Needed to reach Paris Agreement targets
- Installation more important than cons
- Local economy will not suffer

NGOs
- No harm to flora and fauna
- Local economy will not suffer
- IJmuiden Ver is too expensive
- Needed to reach Paris Agreement targets

National government
- Needed to reach Paris Agreement targets
- Installation more important than cons
- IJmuiden Ver is too expensive
- No visual pollution
- Local economy will not suffer
- No harm to flora and fauna

Local economy
- Local economy will suffer
- Harm to flora and fauna

Local government
- Visual pollution
- Not needed to reach Paris Agreement targets
- Local economy will suffer
- IJmuiden Ver is not too expensive

Protest groups
- Visual pollution
- IJmuiden Ver is too expensive
- Local economy will suffer
- Livelihood insufficiently considered

Local population - against
- More costs than revenues
- Visual pollution
- Not needed to reach Paris Agreement targets

Appendix 5: cluster dendrogram with main discourse coalitions and arguments

Local population - pro
- Needed to reach Paris Agreement targets
- Installation more important than cons
- Local economy will not suffer

NGOs & National government
- Needed to reach Paris Agreement targets
- IJmuiden Ver is too expensive
- No harm to flora and fauna
- Local economy will not suffer

Local economy
- Local economy will suffer
- Harm to flora and fauna

Local government & Protest groups
- Visual polution
- Local economy will suffer
- IJmuiden Ver too expensive

Local population - against
- More costs than revenues
- Visual pollution
- Not needed to reach Paris Agreement targets

Appendix 6: Articles used for structuration and the dominant and otherwise mentioned discourses

Source	Article	Date	Dominant Discourse		Mentioned other discourse
			Proponents	*Opponents*	
Metro	Kustgemeenten erg geschrokken van windmolens	23-02-2015		X	
	Groen licht voor windparken op zee	22-03-2016		X	X
	Vleermuizen geliefd wapen in strijd tegen windmolens	08-08-2014		X	
Telegraaf	Kleine visser zit klem	10-04-2019		X	
	Molens pletten beestjes	22-03-2019		X	
	Windmolens in het donker	18-11-2016		X	
AD	'Minister Wiebes gaf onjuiste informatie over kosten wind op zee'	27-09-2018	X		X
	'Bouw windparken verstoort natuur in de Noordzee ernstig'	03-05-2018		X	
	Drie nieuwe windparken voor Nederlandse kust	27-03-2018	X		
	Minister Wiebes mocht kust aanwijzen voor windpark	17-04-2019		X	
Volkskrant	Straks staat kwart Noordzee vol windmolens	10-06-2015	X		
	Felle kritiek op kabinetsplan windparken op zee	26-09-2014	X		X
	Duurzame energie enig begaanbare weg	23-08-2010	X		
	Duitse toeristen storen zich niet aan windmolens op zee	12-08-2015	X		X
NRC	Kabinet wijst locaties aan voor windparken op zee	27-03-2018	X		X
	Windmolens op zee 'not in my backyard'	24-04-2014	X		X
	Wind op zee kan echt goedkoper	18-02-2015	X		
	Nog veel meer windmolens aan de horizon	27-12-2014	X		X
De Trouw	Het gaat niet lukken zonder windmolens	05-07-2016	X		
	Windmolens prima, maar wel ver op zee	11-09-2014		X	X
	Duitse badgasten komen af op windmolens. Sommige, althans	12-08-2015	X		X
	Geen windmolens vlak voor de Hollandse kust	22-12-2015		X	