Public Participation or Financial Compensation?

An Analysis of Dealing with Social Impacts in the Project 'Windpark Wieringermeer'

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Abstract
Increasing popularity for wind turbine development in the Wieringermeer polder (North-Holland, The Netherlands) resulted in beginning concerns at the local authorities for a chaotic, non-coordinated landscape of wind turbines. Therefore, entrepreneurs and local government decided to scale-up and restructure the existing wind turbines in the area, in order to develop the project 'Windpark Wieringermeer'. Reacting on many objections and worries from the local residents about impacts on society and the environment, multiple measures were taken to create a participative process. For example, the first ever 'Omgevingsraad' for a wind farm in the Netherlands that created discussion and negotiation between the initiators and the local residents. As a result of this local residents could receive financial compensation in different forms and amounts, although it led to mixed feelings at the local residents and some of the initiators. This research looks at the role of all the relevant stakeholders, the possibilities in financial participation and the use of public participation, and combine those three factors to answer how social impacts of the development of the wind farm were considered.

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1. Introduction

1.1 Background

In the seventies the first wind turbines emerged in the Wieringermeerpolder (North-Holland, The Netherlands), as progressive thinking farmers built them on their own land, mostly for their own use. Over the years the wind turbines became more efficient and advanced, besides that, sustainable energy started to play an increasingly important role in our energy production. The farmers in the Wieringermeerpolder perceived financial opportunities in the exploitation of wind turbines. Thereby, they hungered for increasing the number of wind turbines. However, the municipality of Hollands-Kroon (in that time the municipality of Wieringermeer) refused a structure of chaos in the landscape induced by the wind turbines. Therefore, in April 2015, the Dutch ministers of Economics and Infrastructure & Environment decided that the existing wind turbines in the Wieringermeerpolder needed to be replaced and restructured in the area (RVO, 2020), resulting in a well-structured wind farm as visible in figure 1.

Figure 1: A map of 'Windpark Wieringermeer'. The white turbines are property of Vattenfall, the red turbines are property of EWEF (Source: windparkwieringermeer.nl

Shortly, local residents and companies made objections towards this project as a result of divergent reasons (Raad van State, 2016). For example, flickering shadows, light nuisance, noise disturbance and negative effects on the landscape and natural environment (Raad van State, 2016). Furthermore, according to the objectors, there is a lack of support from the local residents and there is insufficient research on the necessity and utility of the wind park (Raad van State, 2016). Nevertheless, in May 2016, the Dutch council of state concluded that all objections against the big project were unfounded (Raad van State, 2016), thus, the construction of the biggest on-shore windfarm in the Netherlands can be launched.

'Windpark Wieringermeer', is a project initiated by the Swedish state owned company 'Vattenfall', 'ECN Wind Energy Facilities' (EWEF) and 'Windcollectief Wieringermeer'. It consists of 99 wind turbines that produce the same amount of energy as 370.000 households would consume (EWEF & Vattenfall, 2021). This is approximately 1,3 billion kWh of energy a year (Provincie Noord-Holland, 2018). EWEF is an organization that owns a test park of wind turbines in the Wieringermeer and performs research on the development of wind turbines (Ventolines, 2021). 'Windcollectief Wieringermeer' consists of a group of entrepreneurs from the Wieringermeer region that are active in investing in wind energy (EWEF & Vattenfall, 2011). They have grouped together to participate in the new project and thus contributed to the restructuring of the existing wind turbines in the area.

1.2 Relevance

As earlier mentioned, there were objections from local residents towards this project. The Wieringermeerpolder is a sparsely populated area of the Netherlands with a lot of agricultural lands, thereby; the people living there were instantly aware when the big project was announced, as they foresaw the big impact it would have at the landscape. Due to the heavy impacts on its social and natural environment, it is crucial to research how decisions are made in a development process like that of 'Windpark Wieringermeer'. In addition, this research will contribute to available knowledge

on how to develop a project like this in a participative way. The decision-making process and the level of participation of all the stakeholders will cover the societal relevance of the study, as more knowledge on these themes might help a community that experience the implementation of a similar project in the future.

This research shows the importance of research on social and environmental impacts of big infrastructural projects. It gives an interesting insight on how a company like Vattenfall handles with social or environmental impact assessment. Moreover, it considers benefit sharing, public participation and stakeholder engagement. Potential recommendations on what could have been improved might be helpful in the future.

1.3 Research Questions

The aim of this research is to investigate to what extent social impacts were considered in preparation of the project 'Windpark Wieringermeer'. In addition, how the initiators of the project dealt with these social impacts. This research will look into the decision-making process, considering the social impacts that result from the project, and which methods were used to create a sustainable outcome for both the windfarm and its direct environment. Furthermore, this research will investigate how local residents were involved in the project and to what extent they could influence decision-making. Another important aspect of this research will be the difference in financial participation and its effect on the opinion on the advent of the wind farm. The main research question for this research therefore will be; "How were social aspects considered during the realisation of the 'Windpark Wieringermeer' project?". In order to answer this research question, a few sub-questions are conducted. The following sub-questions will be used to achieve the aim of this research:

- How has public participation been used to increase knowledge on potential social impacts of the windfarm?
- What were the stakeholders' roles regarding the social impacts of the project?
- Which forms of benefit sharing are applied in the project and how did this affect the acceptation of the wind farm's social impacts?

The stated sub-questions can be divided in three themes, namely; public participation, stakeholder's roles and financial participation. These three themes all affect the outcome of the main research question. Public participation plays a vital role in addressing the concerns and objections of the public towards the initiators, thus addressing possible social impacts of the project. The many different stakeholders in this project all have diverse roles and responsibilities, therefore it is interesting to identify what these differences are and what this meant for the decision-making process. The difference in financial participation, or rather compensation, might have a strong influence on people's opinions on the prospective plans for the wind farm project.

1.4 Reading guide

After the given background information and explaining the research problem, this paper will continue with the theoretical framework that creates the basis of existing theories and knowledge relevant to this research. Thereafter, in the methodology part, it will be explained how data is collected and what ethical considerations are made in this data collection process. Subsequently the results and conclusions will be elaborated and stated, followed up by some future recommendations. At the end of this paper one could find the appendices including the interview guides.

2. Theoretical Framework

2.1 Social Impact Assessment

To answer the research questions, it is essential to gain a complete understanding of certain concepts and theories. One of the concepts that are central in this research is the concept of social impact assessment (SIA), which also is an ongoing process when executed. SIA is a widely used concept that is primarily implemented to identify possible impacts on certain communities that are subject to proposed changes in their surrounding environment (Vanclay, 2018). Therefore, this is often observed in the preparing phase of an infrastructure development project, mostly together with (or as a part of) an environment impact assessment (EIA). Furthermore, an important objective of SIA is proposing mitigation and enhancement measures (Hanna et al., 2016). Although many studies advert the importance of SIA regarding infrastructural projects as it minimises the negative social impacts, in reality, the assessments are often poorly executed (Hanna et al., 2016). Aside from that, the intentions of the initiators for performing a SIA can differ as well. One could ask if a form of tokenism is present, which implies that the initiators pretend to show high levels of concern towards the social impacts, however, in reality they approach it as a formality (Monno & Khakee, 2012). Also, it could be that SIA is obligatory due to internal or governmental policies, or that there is sincere interest at the stakeholders in the results of a SIA.

2.2 Public Participation

The concept of public participation is a crucial aspect of this research. The social impacts of a big infrastructure project are mostly deemed by the local residents. Therefore, to see how social impacts are considered it is also very important to investigate how the initiators involve the public in infrastructural developments (Rojanamon, 2012). Apart from this, it is necessary to make an indication of how serious objections or questions from the public were taken by the initiators of the project. According to Cuppen et al. (2012), the concept of public participation is built upon the idea that "those who are influenced or affected by a decision have a moral right to be involved in the decision-making process". This seems logical, as the local residents experience the social impacts of a new infrastructural plan on a daily basis. However, in reality, being involved in the process does not directly signify that one is able to make decisions. To assess to what extent the public participated in the implementation process of the wind farm, the 'Ladder of citizen participation' will be used. This theory by Arnstein (1969) orders eight rungs of participation on a ladder from 'Manipulation' at the bottom, towards 'Citizen Control' at the top. In the middle of the ladder some forms of tokenism are given and explained. The position of 'Windpark Wieringermeer' on the ladder will be determined later in this study.

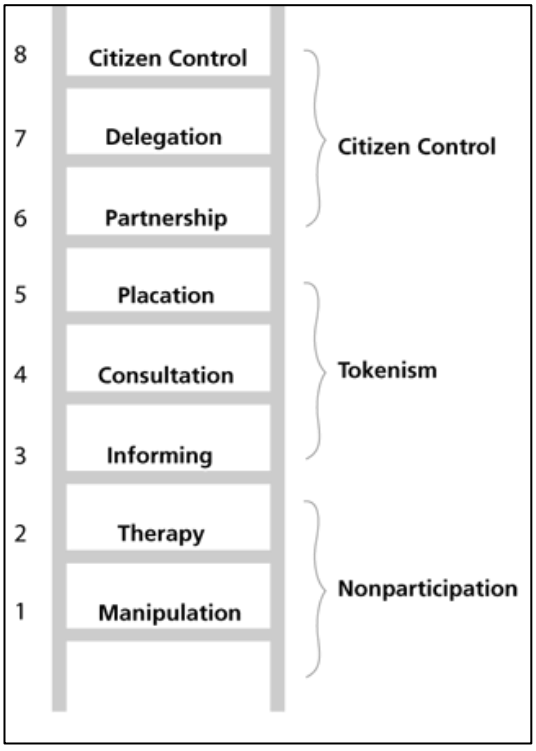

Figure 2: Arnstein's Ladder of Citizen Participation (1969)

Another interesting concept to consider for this research is Social License to Operate (SLO), which can be seen as an approval from a community regarding the legal, social and economic legitimacy of a project (Vanclay & Hanna, 2019). According to Vanclay & Hanna (2019), achieving SLO asks for effective community engagement activities. This will help recognizing potential negative social impacts earlier and thus makes it possible to intervene on time and prevent escalation within the community. Companies have to comply to the legal standards of the countries that they are active in,

moreover, many companies have internal procedures to achieve SLO nowadays. The presence of significant public participation will affect the presence of SLO, as not involving the public will decrease the acceptance of the project.

2.3 Stakeholder Engagement

Considering the second sub-question of this research, stakeholder engagement is a concept to consider. According to Gable and Shireman (2005), stakeholder engagement is "a process of relationship management that seeks to enhance understanding and alignment between companies and their stakeholders". Therefore, a well-performed stakeholder engagement is of big importance in infrastructural projects, as this will prevent wrong interpretation of interests. Other than that, it will secure a smooth cooperation where every stakeholder is eager to complete the goals set (Erkul et al., 2016). This research will look into how the different stakeholders cooperated and to what extent they were willing to make concessions in order to complete the collective main goal. That is, according to the initiators, realising the development of 'Windpark Wieringermeer' with respect to the local residents and utilising sustainable practices (EWEF & Vattenfall, 2021). To assess this, it is necessary to map all the relevant stakeholders involved and to gain a better understanding on what their roles were regarding the social impacts and how they approached this.

2.4 Benefit Sharing

The difference in whether local residents are financially participating in the project is considered when conducting this research. This could be interesting as it might impact the opinions that people have on the social impacts of the project, or it gives the sensation that the financial advantages will alleviate the social disadvantages. A concept that plays a central role in this is benefit sharing, which means that certain agreements are made to provide certain benefits for the local communities (Wilson, 2019). This can be both financial or non-financial, and often is a part of SIA (Vanclay, 2019). Although benefit sharing has become a common term in policies and infrastructure development plans, in practice there is still a lack of implementing this concept in a correct way (Cernea, 2008).

The concept of benefit sharing is often deployed in projects where commercial or governmental organisations use an area where local communities live to exploit a certain good located in this area (Cernea, 2008). Think about, for example, gas extraction, building a hydroelectric dam to gain energy from a waterflow, or exploiting wind energy. As the local communities are confronted with social impacts by those kinds of projects, the concept of benefit sharing seems to be a fair solution to a situation like that (Wilson, 2019). Cernea (2008) also emphasizes that benefit sharing and compensating communities financially is not the same. The author states that impoverishment is not prevented by compensation alone. Furthermore, there are non-financial forms of benefit sharing, think about an influx of labour or new opportunities that come along with the implementation of a big infrastructural project. This research will look into how the concept of benefit sharing is applied in the case of 'Windpark Wieringermeer'.

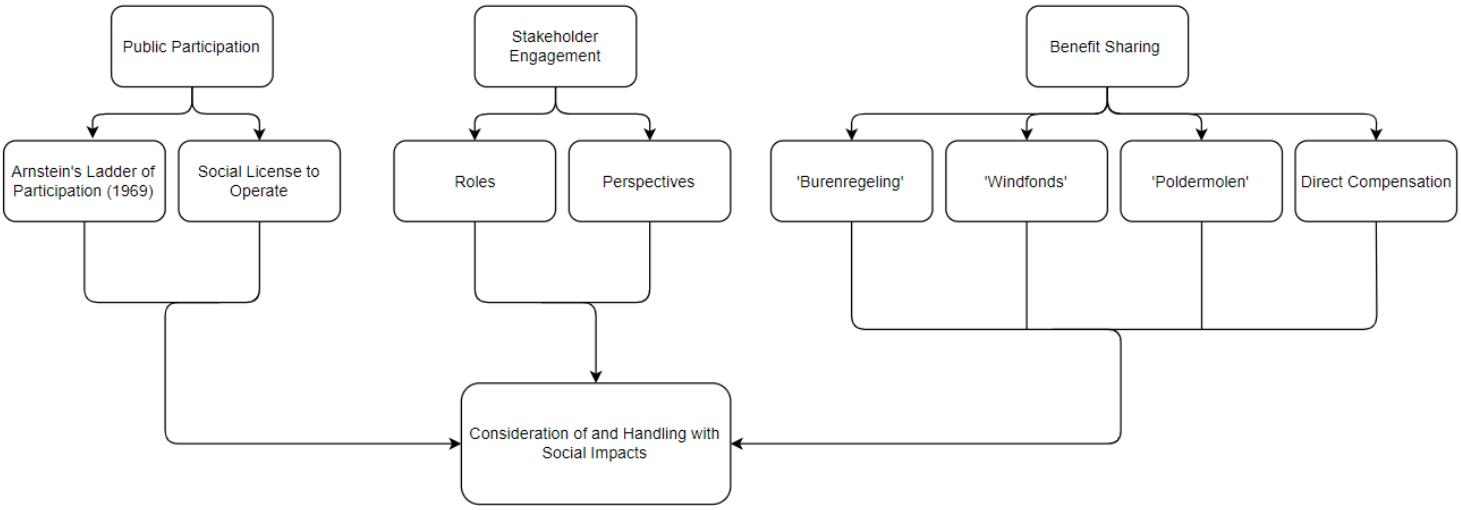

Figure 3: Conceptual model

3 Methodology

The chosen methodology in this research is based on the grounded theory approach. This approach refers to conducting qualitative research using a set of inductive methods, which illustrates that its main aim is for it to be generalized so that it can be applied to similar cases, derived from the empirical data collected (Clifford et al., 2016). Conversely, this research will contribute to composing general laws for similar cases.

3.1 Expert Interviews

To gain information that will be necessary to answer the research question(s), in-depth interviews are held with people from all the relevant stakeholders involved. The interviews were semi-structured and on the basis of the answers of the interviewees more questions were asked to create dialogue and go deeper into the matter.

This research focused on the initiator's role regarding the consideration of social aspects of the 'Windpark Wieringermeer', therefore; local residents were not selected for interviews. However, the local residents were represented in the 'Omgevingsraad', a council where all stakeholders were gathered and that operated like an important location given the opportunity to discuss relevant topics regarding the wind farm. Eventually five interviews were conducted, as visualised in table 1.

Name in research	Role regarding 'Windpark Wieringermeer'	Date of interview
E1	Chairman of the 'Omgevingsraad'	4-11-2021
E2	Project Director of Vattenfall	5-11-2021
E3	Chairman of 'Windcollectief Wieringermeer'	8-11-2021
E4	Project Director of the Municipality Hollands Kroon	19-11-2021
E5	Project Director of the Province of North-Holland	1-12-2021

Table 1: List of interviewees, including dates of the interviews

Stakeholder mapping has been utilised to gain a complete overview of the relevant stakeholders of the project 'Windpark Wieringermeer'. For each interview a slightly different interview guide will be used. There will be a set of questions that are asked to all the stakeholders, however; each stakeholder has their own perspective towards the situation and therefore specific tailored questions will be asked to each stakeholder. Atlas.ti has been used to analyse the interviews and assign codes to the primary data. This will give a better overview and makes it easy to identify if there are any correlations in the data.

Use of data collection instrument
In the interview guide (see appendix), there is a divide between general questions and stakeholder specific questions. The questions stated in the general interview guide are categorized by theme (public participation, stakeholder roles and financial participation). These themes correlate with the themes addressed in the sub-questions. The questions used in the general interview guide can be asked to every interviewee, regardless of their role in the project. Comparing the answers from different stakeholders might result in interesting differences in perspective. The answers from both interview guides combined will create a clear insight on the whole project and therefore will provide answers to the research questions. As the general interview guide will focus on the sub-questions and the different themes associated with them, the stakeholders specific interview guide will focus more on the details and thus complete the big picture.

Recruitment and other details of the interviews
Starting this research, the different stakeholders were mapped and it was aimed to interview one person from each organization. Further research conducted in the stakeholders' organizations helped to identify and select the right interviewees. To recruit interviewees for this research, contact information had to be gained in order to invite the different stakeholders. In cases where certain information was not found, LinkedIn was used to reach out to the interviewees. Furthermore, snowball sampling has been used to get in contact with new potential interviewees. This entails "using one contact to help you recruit another contact, who in turn can put you in touch with someone else" (Clifford et al., 2016).

It has been explained to every participant what the research entails and why they have been selected to participate in the research. Furthermore, it was offered to conduct the interviews at a location as preferred by the interviewee. For example, E1 preferred doing the interview in an online video call, E2 suggested to conduct the interview at the headquarters of Vattenfall Netherlands in Amsterdam, and E3 asked if it was possible to take the interview at his home. This was done to create a comfortable setting for the interviewee.

3.2 Ethical Considerations
During the interviews it will be of great importance to contemplate ethical considerations. This research will adhere to the ethical principles stated by Vanclay et al. (2013). In their paper 18 ethical principles are given that should be respected in impact assessment. For example, respect for participants, voluntary participation and no coercion, data protection and the necessity of specific permission required for audio- or videorecording. As emphasized by Vanclay et al. (2013), the use of signed consent forms needs to be increased. Therefore, informed consent forms were given or sent to all interviewees prior to the interview. The interviews were not conducted before these forms were signed.

3.3 Data analysis scheme

To analyse the primary data collected during the interviews, Atlas.ti was used. Certain parts of the data are categorized and assigned to codes. In this way, one gets a very clear overview of the data and thus simplifies analysing the data. The codes used in this research will especially focus on the three themes earlier mentioned (public participation, stakeholder roles and financial participation). In the case of public participation, it is aimed to distinguish if public participation in a certain topic of debate was realised or not, and in what manner this was done. The same is the case for financial participation, was financial participation available and in what manner. Concerning the stakeholder's role regarding the consideration of social impacts there are more possibilities. There are three codes that relate to the perspective of the interviewee, namely; 'Entrepreneur / Commercial', 'Government / Administrative' and 'Local resident / Public'. Besides that, there are five codes concerning how the interviewee behaved in certain situations. These codes are 'Cooperating', 'Executive', 'Accommodating', 'Research' and 'Negotiating'. The coding tree is visualised below.

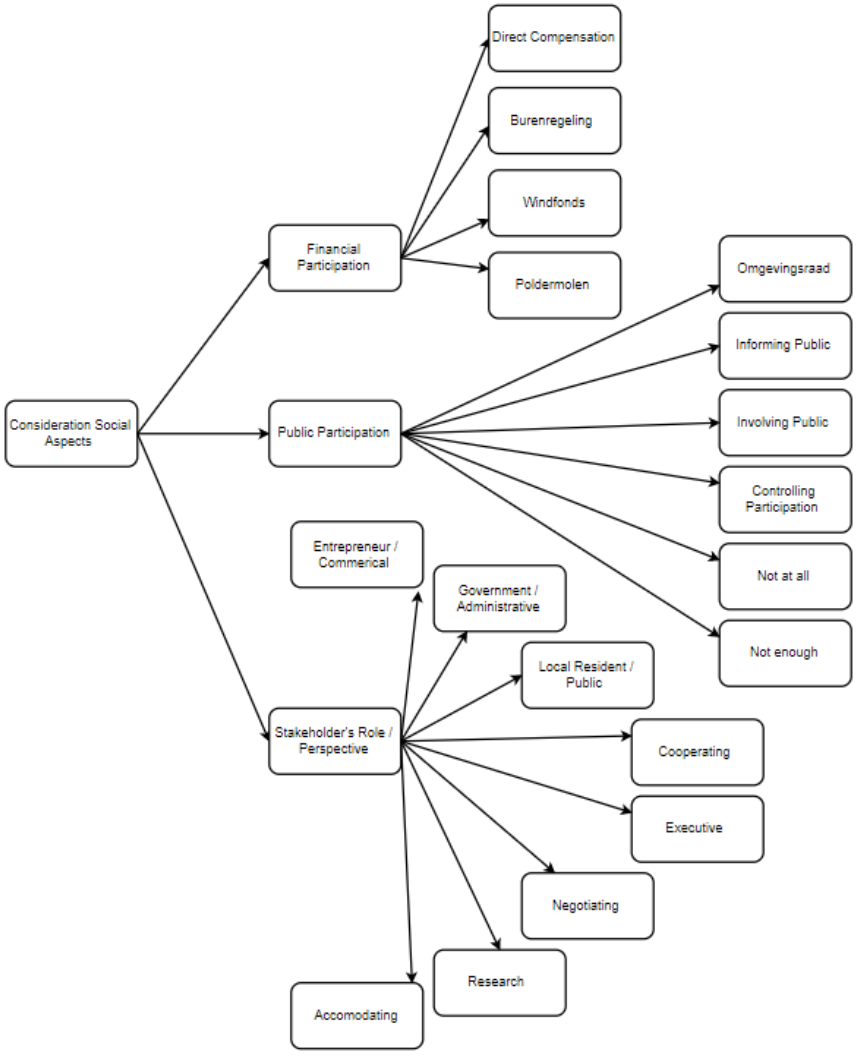

Figure 4: Coding tree for analysing the primary data collected

4 Results

In this results section the three stated sub-questions will be discussed to subsequently answer the main research question. It summarizes the results of the expert interviews regarding the different topics discussed. Relevant quotes from the interviews will be presented to support the results stated.

4.1 The use of public participation

During the interviews, the use of public participation is discussed thoroughly. One of the things used to let local residents participate was the installation of the 'omgevingsraad'. E2 declares that this council was established in 2013 as an initiative of Vattenfall, 'Windcollectief Wieringermeer' and the local government, with the goal to start a debate between the initiators and the other stakeholders. Think about representatives of local residents, interest groups and foundations. This was the first time in the Netherlands that such a council was implemented in the case of the development of a wind farm. The council was made accessible for everyone, however, not all of the objectors were willing to take a seat in the council (Lammers & De Boer, 2014). The independent chairman of the council acted like a mediator in the debates and was responsible for controlling the meetings. According to E1, the subjects that were discussed in the council were, among other things, compensation arrangements, construction plans and the number of different nuisances. However, the non-initiators in the council discovered quickly that the approach was not to discuss *if* the wind farm was going to be developed, but rather *how* it is going to be developed (E1, E2 & E4). The initiators created a council to involve them in this discussion and this created input from the public, although this does not directly mean that the plans will be altered according to the opinion of the public. The local residents had access to an expert advisor, this was someone with a lot of experience and knowledge, according to E1, and this helped the local residents a lot to receive a fair and reasonable compensation arrangement.

A second manner of public participation were the 'Wind Weekends', three weekends organised to involve the community in the development of the wind farm. E3 stated during the interview that it was an initiative of 'Windcollectief Wieringermeer' and Vattenfall. The main goal was to inform the local residents and to make them enthusiastic about the project. E3 explained that it was tried to visualise the plans with drawings and scale models and people got the opportunity to have a look inside a wind turbine. Besides that, people were able to ask their questions directly to the initiators. After the weekends, the initiators discussed new concerns or objections from the local residents in a meeting, and took measures if necessary (E2 & E3). As the 'Wind Weekends' were very interactive, the initiators also organised multiple information evenings. These evenings were not always well-attended, which could cause a feeling of incomprehension at the initiators when local residents complained about receiving too little information (E3).

Looking at the ladder of citizen participation by Arnstein (1969), one could say that the 'Omgevingsraad' could be placed at level 5; 'Placation'. This level entails that citizens have some degree of influence; however, tokenism still remains apparent. However, one might say that regarding some subjects of discussion in the 'Omgevingsraad' it steps up one level on the ladder and reaches level 6; 'Partnership'. During the interviews it became very clear that in certain topics it was not possible for local residents to interfere, although in other subjects they really were listened to, and thus, the public did get some power in those discussions. According to E2, it is just not possible to involve local residents in certain complex things, it has to be done by professionals. Think about the signing of land contracts, subsidy agreements and allocations, complex calculations and the spatial issues. The 'Wind Weekends' would score a bit lower on the ladder, namely level 4 (consultation), although it helped a lot with making people more enthusiastic for the project. During those weekends it was mostly giving information. People were able to speak to some of the initiators, but did not actively participate in the decision-making process during such a weekend.

The 'Wind Weekends' did contribute in achieving a SLO, as it definitely can be seen as a community engagement activity. Furthermore, the initiators took the concerns from the community serious throughout the whole process, even still today. However, this most probably did not lead to a complete SLO where all the local residents fully approve the project. One could ask, though, if this is due to a lack of effort at the initiators, or that some people are just principally against big projects like 'Windpark Wieringermeer' in their backyard. The initiators organised multiple events to inform and involve local residents as much as possible. However, according to the initiators, some things are just not possible.

*E2: "It wasn't the question **if** the wind farm was coming, but **how** it could be realised in the best way."*

4.2 Stakeholder's role

In a project of the size of 'Windpark Wieringermeer' many stakeholders are involved, all with their own interests and perspectives. The different stakeholders that are interviewed for this research were asked about their role and this revealed the differences in perspectives. For example, E4, as the project director from the municipality had to defend the interests concerning the wind farm for the municipality. Furthermore, the municipality led the spatial planning of the project and cooperated with the national government on meeting the sustainability goals. As a municipality is an institution to the service of its citizens it found participative involvement in the project very important. Therefore, it is a lot different than the perspective of E3, who is an entrepreneur and invested his own capital in a wind energy project with revenue as the target. One could imagine that E3 is prioritising participative involvement a lot less than E4. In the scheme below the different roles and perspectives are shown, supported by a quote from the interviews.

Interviewee	Role	Perspective
E1	– Leading negotiations in the council – Act like a mediator – Be fair and reasonable	Mediator
E2	– Preparations for construction phase – Draw up financial contracts	Entrepreneur
E3	– Investing capital for revenue – Leading the WCW	Entrepreneur
E4	– Defend municipalities' interest – Listen to local residents' opinion	Government
E5	– Cooperated with municipality – Financial impulses – Balance between state and municipality	Government

Table 2: Interviewees with their role and perspective regarding the project.

Interviewee	Quote
E1	"I have to try to not only lead the meetings in a good way, but also I have to try to steer it in such a way that the local residents get the feeling of; 'We couldn't stop the wind farm project, but we maximised the benefits we could get from it!'."
E2	"My responsibility was the preparatory phase, that means besides managing the permits and land contracts and stuff like that, also cooperating and coordinating with all the stakeholders. That is municipality, province and state."

E3	"I'm active in the wind energy business since 1996, first started with a turbine on my own land and in 2004 I saw the opportunities for a good business plan with wind energy. Eventually, we established the association 'Windcollectief Wieringermeer' and I've always been the Chairman there. Together with Vattenfall and ECN we developed 'Windpark Wieringermeer'."
E4	"From 2009 to 2015 I was the project director for 'Windpark Wieringermeer' on behalf of the municipality Hollands Kroon, so I had to preserve the municipal interests. I was involved from the moment of the idea until it felt under the state coordination procedure."
E5	"I directed the wind farm on behalf of the province of North-Holland. We had a role in the cooperation between municipality and state, especially to look if it was possible to do a bit extra in the social aspects of the project. Furthermore, we were involved in the organisation of the participative process and the spatial quality and experience of the area."

Table 3: Quotes from the interviewees regarding their roles related to the project.

In all the interviews it became clear that all the stakeholders were positive towards the cooperation throughout the project. Although, the entrepreneurial perspective of E3 could be a little impatient and considered the many procedures from the government a bit meticulous sometimes. However, the stakeholder engagement in this project can be assessed as good, because even if it could feel unnecessary or meticulous to one of the initiators, they did everything possible to satisfy the local residents as well. By making concessions and negotiating about compensations to implementing a fund for the local community. The initiators were not required by law to do this, but due to good stakeholder engagement it was managed to harmonise everyone involved and to realise the project.

E3: "If there is anything I would have done differently looking back? The cooperation with the state was really good, so that would be something I would definitely do the same again. They were so good in giving structure to the whole process, and besides that, we also had a lot of employees who enjoyed the cooperation with the state as well. So that was a fantastic, pleasant cooperation."

4.3 Financial participation

During this research it became more and more clear that there is a difference in the compensations given to the local residents. Local residents of 'Windpark Wieringermeer' received the opportunity to financially participate in the project in several different ways. Already in June 2016, an agreement between the 'Omgevingsraad' and the initiators of the project was made concerning a "compensation for the environment" (EWEF & Vattenfall, 2021). The program that was implemented to make this compensation possible was called the 'Burenregeling' and was available for people living in the former municipality Wieringermeer within 1250 metres from a wind turbine, excluding the people living in the village centres, these are approximately 330 households (EWEF & Vattenfall, 2021). The 'Burenregeling' entails that an amount of €429.000 provided by the initiators is divided over the households that qualified for this compensation, depending on the distance to a wind turbine and the amount of wind, thus, the "working" hours of the turbines (EWEF & Vattenfall, 2021). Another initiative is the 'Windfonds', which is a fund that supports and stimulates local projects that focus on the well-being of the local society (EWEF & Vattenfall, 2021). Local residents had the opportunity to request financial support for their societal projects, finally, the 20 projects

with the best substantiation were selected by a board installed by the initiators (EWEF & Vattenfall, 2021).

More initiatives were implemented to create financial advantages from the windfarm, for example, the 'Poldermolen'. This project uses subsidy legislation in a smart way to enjoy a 15-year exemption from general energy taxes (De Poldermolen, 2021). To take part in this project you have to live in a certain zip-code area and, besides that, it is necessary to invest in the project. While this looks like a nice opportunity to participate financially in the wind energy project, there was a lack of interest at the local residents and the 'Poldermolen' has never been realised. The last group of people that financially profited of 'Windpark Wieringermeer' is the 'Windcollectief Wieringermeer'. They got the choice to develop their wind turbines themselves or sell it to Vattenfall so they can develop it together with the newly built 'Windpark Wieringermeer' (HKredactie, 2017). Due to the high risk of investing in wind energy it was decided to sell the turbines including the land to Vattenfall, by this decision direct financial capital was received individually by the members of 'Windcollectief Wieringermeer' (MK, 2020). The existence of the several options for local residents to participate financially in the windfarm signifies that there will be a significant group of people that have financial advantages. However, there still will be a group of people that do not enjoy these benefits, while they are exposed to the social aspects of 'Windpark Wieringermeer'. For example, poorer families might not be able to participate in the 'Poldermolen' as they do not have the financial resources.

The existence of certain arrangements in the case of 'Windpark Wieringermeer' might have played a crucial role in the acceptation of the development of the wind farm. The differences in financial compensations could have caused inequality in the community, and therefore also different opinions towards the development of the project. There will be people in the village centres that do not get compensated at all, while some farmers a few miles outside the village centre gets thousands of euros on a yearly basis. E1 told about a man that was strongly against the development until it was necessary to build a construction road on his land and he received a compensation for that, "From that moment we have never heard from him again". Furthermore, E5 explained that a farmer that got a wind turbine at his land received for 25 years about €8000 – €10.000 per MW per year, this means that for a wind turbine of 2,5 MW you receive about €25.000 per year. This is a very welcome bonus for a small agricultural company, E5 even called it a financial carrier. Therefore, one might say that because of these financial compensations people changed their point of view towards the development of the wind park. Apparently, people experience less nuisance when they know that they are earning money from it, or are less likely to complain about the nuisance. This is also a point made by E3, who did not agree with the government to compensate local residents for the development of the wind farm. E3 declares that from the beginning the government wanted to financially involve the local residents in the project. However, according to E3, financial participation is investing money, and thus, bearing risk, just like the initiators themselves. Besides that, E3 considers it as some form of bribery and thinks that the failure of the 'Poldermolen' is proof for that. According to E3 that was true financial participation, people invest money, take a risk, but could benefit from the revenues of the wind turbine. However, instead of financially participating, people just wanted to be compensated, preferably as much as possible (E3).

Giving back to the local community of course is a good thing, and initiatives like the 'Windfonds' and the 'Burenregeling' are fair and necessary to develop a big infrastructural project while maintaining a good relationship with your neighbours. However, the point made by E3 is understandable, just giving money is not a sustainable financial participation procedure. Furthermore, the nuisance will not disappear all of a sudden when you give a sum of money to your neighbour. In the terms of benefit sharing, improvements can be made here. The fact that the 'Poldermolen' project failed due to a lack of interest shows that financial participation is less attractive than financial compensation. Receiving money from the government without any risk is more attractive than investing money while bearing risks.

E3: "So if people get irritated due to flickering shadows, we turn the turbine off. We are not going to pay for it, because then they still get irritated, isn't that right? Or you get irritated and then we'll make sure we will remove that irritation, and when you don't get irritated, well then we also don't have to do anything. But I'm not going to pay you off and subsequently continue to irritate you, I think that's so foolish. It's bullshit!"

5 Conclusion

The social impacts in the 'Windpark Wieringermeer' project are considered in multiple manners. The installation of the 'Omgevingsraad' functioned as a meeting place for initiators and other stakeholders and gave the opportunity to discuss on how certain aspects of the project should be executed. Furthermore, it opened up the negotiations on financial compensation for the development of the wind farm. Other measures taken to understand and consider social impacts are the 'Wind Weekends' and information evenings. Involving the local residents in the project in that way proves that the initiators were aware of the importance of public participation.

Nevertheless, apart from taking into consideration the social impacts of the project, it is also necessary to see what these considerations led to. The fact that the initiators implemented a council to attend to the worries of the local residents show that the social impacts were taken seriously. Moreover, they organised 'Wind Weekends' and information evenings, in addition, they presented multiple options to gain financial advantages out of the project. On the other hand, people might call that a form of bribery and, according to E1, some local residents felt that it was just a small offer for the initiators to make up for the social impacts. Other local residents were very interested in the compensations and did everything they could to get as much as possible out of it (E3).

However, the development of 'Windpark Wieringermeer' still included impacts on the local society and its environment, therefore multiple possibilities on financial compensation were made available for the local residents. Although there was a difference in the amount of compensation between the local residents, most people accepted it and the objections and worries about the development of the wind farm decreased. Striking to see is that the local residents refrain from the 'Poldermolen' initiative, according to E2 and E3, the only proposal that made financial participation in the project really possible. The differences in perspective towards the project between the various stakeholders has ensured different opinions on especially the financial compensations. While the entrepreneur perspective focuses on completing the project to start making profits, the (local) government perspective considers the opinion and satisfaction of the local residents as very important, and therefore, pushed for this participative approach.

The project 'Windpark Wieringermeer' was developed with a progressive way of thinking regarding public participation and financial compensation. Having the first 'Omgevingsraad' ever for a wind project in the Netherlands, and thus focusing on a participative process, was new and innovative for that time. Although it was tough to accept in certain situations for the initiators, they still cooperated and eventually realised the importance of 'having a good relationship with your neighbours'. E2 declared that Vattenfall as a company learned a lot from that process and nowadays they are still using the lessons learned during the development of 'Windpark Wieringermeer' in current projects. Furthermore, initiatives like the 'Poldermolen' and the 'Windfonds' were innovative plans to give back to the local residents financially. However, improvements could still be made looking at the future. For example, the differences in financial compensation created inequality and tensions in the

community and initiators had mixed feelings about it. Therefore, there are definitely improvements possible in a benefit sharing procedures for big infrastructural projects like ‘Windpark Wieringermeer’. This might be achieved by involving the public earlier on in the discussion, and thus, using even more public participation to reach a desired end product for all the stakeholders, instead of simple financial compensation.

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Appendix 1

Introduction

- Welcome
- Introducing yourself and explain about the goal of the research
- Ask for a short introduction from the interviewee

Stakeholders' role

- What was your role during the project 'Windpark Wieringermeer'?
- From what point did you start thinking about possible social impacts?
- Did you experienced social impacts from the project yourself?
- How did you experience the collaboration with other stakeholders?
- If you have to do the whole project again, are there things you would do differently?
- (Further questions will differ concerning different interviewees and answers given)

Public participation

- Was the opinion of the local residents / public considered when the plans for the project arose?
- How did you became aware of the opinion of the local residents / public?
- How did you secure that the local residents / public were involved during the ongoing implementation process?
- (Further questions will differ concerning different interviewees and answers given)

Financial participation

- Are you financially participating in the 'Windpark Wieringermeer' as an individual?
- When did local residents get the option to join in the project financially?
- What was the motivation to give people such an opportunity?
- How did local residents react to this possibility?
- Did this possibility affect the opinion of local residents on the construction of the windfarm, if yes, in what way?
- (Further questions will differ concerning different interviewees and answers given)

Conclusion

- Do you have any questions for me?
- How did you experience this interview and is there any feedback you want to give me?
- Ending and thanks for participating

Appendix 2

Vattenfall

- Is there an internal policy regarding social impact assessment?
- How were social impacts assessed?
- What were the negative social impacts of the project? And positive?
- Were adjustments made as a result of social impacts?
- How are local residents compensated?

Omgevingsraad

- Can you describe the role of the 'omgevingsraad'?
- What was the result of the work of the 'omgevingsraad'?
- Were the local residents satisfied with the work of the 'omgevingsraad'?
- How important is the role of an 'omgevingsraad' in a project like this?

Windcollectief Wieringermeer

- Can you explain how Windcollectief Wieringermeer started?
- When did you first hear about the plans for 'Windpark Wieringermeer'?
- How did you experience the communication and cooperation with Vattenfall?
- How do you perceive the social impacts of the windfarm?

Municipality Hollands Kroon

- Can you explain what is involved in the planning and implementation process for a project like 'Windpark Wieringermeer'?
- How did you assess the possible social impacts of the project?
- In what way was public participation used?
- How did you manage the cooperation with the initiators while you have to deal with concerns from the public simultaneously?
- Are you satisfied about how was dealt with social impacts in general?

Province of North-Holland

- How did the province of North-Holland positioned itself towards all the relevant stakeholders?
- Can you tell me how the cooperation between municipality, province and state in a project like this works?
- How did the province of North-Holland involved its citizens in the project?
- What are the advantages for the province of North-Holland in such a project?