

Influence of the Omgevingsvisie on the Integration and Consideration of Environmental Sustainability

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Summary

The Omgevingswet (Ow) is a new act that is planned on being fully implemented in the Netherlands by 2021. This act integrates the many current acts and laws on planning and the environment in the Netherlands, and aims to find a balance between benefiting from and protecting the physical living environment. In Article 1.3 of the Ow, it is stated that the objective of the act is to ensure sustainable development (Omgevingswet, 2016).

The Ow is based upon the ideas of Transition Management (TM). This theory, which has been heavily associated with the Netherlands (Meadowcroft, 2009), is one theory on how to govern to bring about a transition towards a sustainable society (Markard, Raven & Truffer, 2012).

One tool of the act is the Omgevingsvisie (Ov) which is a vision that is collaboratively constructed for the physical living environment. The national, provincial and municipal levels of government must all create an Ov for their respective jurisdictions. In a report from the Rijksinstituut voor Volksgezondheid en Milieu (National Institute for Public Health and the Environment) it identified the Ov as the ideal part of the Ow in which to establish goals for protecting the environment (Rijksinstituut voor Volksgezondheid en Milieu, 2017). Furthermore, in literature on TM, it identifies the vision stage as crucial to mobilize and inspire action to realize a transition to a more sustainable society (Rotmans, Kemp, & van Asselt, 2001).

This study researched what influence the process of developing an Omgevingsvisie had on the integration of and consideration for environmental sustainability issues. In order to do this a qualitative case study was performed using semi-structured interviews of experts involved in the Omgevingsvisie process. Two provinces were included in the study: South Holland and Gelderland. Additionally, one ministry was included, the Ministry of Infrastructure and Water Management. Three interviews were conducted with representatives of each of these.

Results found that the Omgevingsvisie process does increase the consideration and integration of environmental sustainability in decision making. There is already an increase happening outside of the Omgevingsvisie however, so it is difficult to determine to what degree the Omgevingsvisie contributes. The Omgevingsvisie is successful in creating a vision for a sustainable future but what remains to be seen is if this can be achieved in its implementation. Future research will be required as the Omgevingswet is fully implemented.

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Chapter 1: Introduction

The Omgevingswet (Ow) is a new act that is planned on being fully implemented in the Netherlands by 2021. This act integrates the many current acts and laws on planning and the environment in the Netherlands, and aims to find a balance between benefiting from and protecting the physical living environment. In Article 1.3 of the Ow, it is stated that the objective of the act is to ensure sustainable development (Omgevingswet, 2016). The act uses the Brundtland definition of sustainable development; “development that meets the needs of the present generation, without compromising the ability of future generations to meet their own needs” (ibid.). Furthermore, the act espouses “the precautionary principle, the principle of preventative action, the principle that as a priority environmental damage/degradation must be combated at the source and the principle that the polluter/contaminator pays” (ibid.). Given these objectives and principles of the act, it appears that environmental sustainability (ES) is a major priority of the act.

The prioritizing of ES in the Ow is justified considering the scope and severity of environmental issues. At the current rate of greenhouse gas emissions, the global average temperature is predicted to rise more than 2°C (IPCC, 2014). This will have severe negative impacts on the environment and most systems that sustain humans. By the year 2100, net greenhouse gas emissions must be neutral to limit global warming to 2° C and thereby avoid the worst affects of climate change (ibid.). Besides climate change, three other ES issues are at critical levels: “biosphere integrity, biogeochemical flows, and landsystem change” (Steffen et. al., 2015). All these issues could destabilize the planetary systems which allow for human societies to thrive (ibid.).

The Ow is based upon the ideas of Transition Management (TM). This theory, which has been heavily associated with the Netherlands (Meadowcroft, 2009), is one theory on how to govern to bring about a transition towards a sustainable society (Markard, Raven & Truffer, 2012). An issue with ES issues is that there is a conflict between short term interests, such as economic development, and long-term issues, such as climate change. Typical policy planning happens on a time scale of 5-10 years which is often inadequate to deal with ES issues. TM proposes that policy planning looks at much longer time scales of 50-100 years (Rotmans, Kemp, & van Asselt, 2001). In theory this solves two issues. First, it prevents solely focusing on short term interests, and requires addressing long term issues. Second, it also prevents short term ‘fixes’ to long term issues. An example of short term ‘fixes’ is attempting to make coal fire power plants emit less emissions (ibid.), which although decreases emissions in the short term, does little to fix the long term issue, and does not create the systemic changes required to eventually address the issue. TM proposes a potential solution to the Giddens Paradox. This paradox speculates that we will fail to deal adequately with climate change in time until it is already causing catastrophic consequences, at which point it will be too late (Giddens, 2009). By managing and adjusting for the conflict between short term interests and long term issues, TM aims to bring about a gradual systemic change towards a sustainable society (Rotmans, Kemp, & van Asselt, 2001).

One tool of the act is the Omgevingsvisie (Ov) which is a vision that is collaboratively constructed for the physical living environment. The national, provincial and municipal levels of government must all create an Ov for their respective jurisdictions. In a report from the Rijksinstituut voor Volksgezondheid en Milieu (National Institute for Public Health and the Environment) it identified the Ov as the ideal part of the Ow in which to

establish goals for protecting the environment (Rijksinstituut voor Volksgezondheid en Milieu, 2017). Furthermore, in literature on TM, it identifies the vision stage as crucial to mobilize and inspire action to realize a transition to a more sustainable society (Rotmans, Kemp, & van Asselt, 2001).

1.1 Problem Description

ES issues pose a major threat for the continued “development of human societies” (Steffen et. al., 2015). Current Dutch law is considered to be insufficient and ineffective to address sustainable development (Tweede Kamer der Staten-Generaal, 2014). As identified in the Ow, ES is a major objective of the act (Omgevingswet, 2016). The Ov is the tool that is most suited to establishing the goals in relation to ES (Rijksinstituut voor Volksgezondheid en Milieu, 2017). In theory this vision could mobilize and inspire action to reach ES goals (Rotmans, Kemp, & van Asselt, 2001). For this to happen social learning will have to occur, which entails not only a change in individuals but within the larger community and how it acts and interacts (Reed et. al., 2010). In theory the Ow will lead to solutions for ES issues and thereby allow for the continued development of human societies. The dilemma is that ES is not the only objective of the Ow, nor of those involved in the processes (Ministerie van Infrastructuur en Milieu, 2017). To address the overall problem of ES, the Ow must be successful in addressing it, which requires that the Ov establishes goals and inspires action in relation to ES.

Although the Ow has not yet been fully implemented, pilot projects of the Ov have already been performed. This allows for the analysis of the effectiveness of the Ov to achieve its objectives before the Ow is fully implemented. An analysis of the Ow found that the effectiveness of the act to address sustainability issues is largely based on how it will be interpreted and implemented (de Graaf, Platjouw, & Tolsma, 2017). Therefore, the problem presented by the Ow to address ES issues is not only that there are competing objectives, but also that the act is not strict in its implementation. The problem that this research addresses is whether the vision created by the Ov integrates ES goals and if it inspires increased consideration of ES issues.

There is limited research that has been conducted on the Ow or the Ov on the impacts it will have on ES. In an editorial written by a lawyer specializing in environmental law they stated they were unaware of any research thus far that analyzed how the Ow is influencing climate change goals (Lam, 2018). There has been research conducted on the Ov process with regards to participation (Grootevheen, 2017), if the Ov process is integrated and interactive (Teunissen, 2016) and if the Ow uses an ecosystem approach (de Graaf, Platjouw & Tolsma., 2017). Specific research on if the Ov increases the integration or consideration of environmental sustainability, including climate change has not been conducted thus far as far as the researcher is aware.

1.2 Research Objective

The objective of this study is to analyze if the preliminary implementations of the Ov process integrates ES into decision making by setting goals and inspiring action on ES issues and increases the consideration for ES in decision making. Analyzing the Ov will allow for insight as to whether the process leads to a significant change in how ES is integrated and considered. The societal relevance will be to provide an initial analysis on how the Ow will be interpreted and implemented, specifically in relation to ES. The scientific relevance will

be to provide insight into an application of Transition Management Theory, which has few applications at the moment.

1.3 Research Questions

Main question:

- What influence does the process of developing an Omgevingsvisie have on the integration of and consideration for environmental sustainability issues?

Sub-Questions

- What influence does the Omgevingsvisie process have on individuals' and government's perception of environmental sustainability?
- What influence does the Omgevingsvisie process have on social learning about environmental sustainability?
- How do different provinces approach the Omgevingsvisie process differently in their integration and consideration of environmental sustainability?

1.4 Societal and Scientific Significance

Once the Ov is fully implemented all municipalities, provinces, and the national government in the Netherlands will have to create an Ov. The societal relevance of this study is that it gives an indication of the Ov process influences the consideration and integration of ES. Additionally, since the Ov process forms the long-term vision and goals for the Ow, this study will also provide a limited indication of how the Ow will consider and integrate ES into decision making. For both policy writers and participants in the Ov process this research will be able to inform if there needs to be an increased focus on ES in the Ov process. Including social learning in the conceptual framework allows project leaders and policy writers to have insight into if and how the Ov includes: a change in understanding, change that goes beyond the individual and become embedded into wider societal units, and if this occurs due to the social processes of the Ov. The adaptation of a framework to evaluate transitions provides a tool which can be used and adapted to further evaluate transitions, which is critical for designing and assessing the efficacy of transition projects.

The scientific relevance of this study is to provide an initial study into the effect of the Ov on ES consideration and integration. Scientific literature has been limited on the Ow and its influence on environmental sustainability (Lam, 2018). This study focuses on an exploratory analysis of the influence that the Ov process has on the integration and consideration for ES at the provincial level. Additionally, another study which uses, in part, the framework developed by Schapke et. al. (2017) can provide further evidence of the efficacy of this framework. This will serve to inform future studies both on the results of this study and how it was conducted.

Chapter 2: Theoretical Framework

This chapter begins with a literature review on the three key topics from this study: the Ow, Transition Management, and social learning. Following the literature there is a detailed explanation of the conceptual framework: what it is based on, why it was chosen, and how the concepts are defined and interrelate.

2.1 Omgevingswet

The following section outlines a selection of the research conducted on the Ow and the Ov in the Netherlands. While research has been limited the interest of the scientific community both from within the Netherlands and abroad is increasing.

In a study on what outcome the Ow will have on planning in the Netherlands, the researcher found that due to the complexity and flexibility of the Ow it is difficult to determine or control the outcomes (Korthals Altes, 2016). The researcher concluded that the national government will have a difficult time controlling the outcomes of the Ow, and the Ow could lead to a focus on permitting any private development plan instead of achieving the goals laid out in the Ow (ibid.). The author compared the new act to the English planning system which has led to significant legal issues due to its flexibility (ibid.).

A study by de Graaf, Platjouw and Tolsma (2018) analyzed if the Ow supports the ecosystem approach. The focus of this approach is to consider the ecosystem's ecological boundaries to maintain its integrity while also allowing for its sustainable use (Platjouw, 2016). Through analyzing the Ow, this research found that the Ow does not explicitly support the ecosystem approach however it is flexible enough to allow for its use (de Graaf, Platjouw & Tolsma, 2018). There is danger in this flexibility as it is also a possibility that ecosystem integrity will not be taken into account (ibid.).

New Zealand implemented a similar act, called the Resource Management Act, as the omgevingswet in 1991 (Frame, 2008). This act replaced 20 major statutes and aimed to integrate and consider environmental sustainability in long term development and planning (ibid.). Auckland, the largest city in New Zealand, also created a long-term vision (ibid.). This vision is similar to the Ov as it provides a framework to guide future development. A study by Frame (2008) found that visions such as these can be integral parts of bringing about a transition and should be regularly reviewed and analyzed.

In a case study analysis of a municipality in the Netherlands, Teunissen (2016) found that the Ov was not truly collaborative. Despite placing a heavy focus on collaborating with citizens and organizations the municipality ultimately controlled the outcome of the Ov process (ibid.). Consulting citizens and organizations also brought the additional struggle of inefficiency and adding significant time to the process (ibid.). While there was strong collaboration within the group that wrote the Ov, there was a lack of collaboration with different departments within the municipality (ibid.).

Another case study on two municipalities in the Netherlands similarly found that the collaboration with citizens could be improved in the Ov process (Grootevheen, 2017). Grootevheen (2017) found that citizens should be involved throughout more of the process, and that municipalities should use the opportunity not just to gather their opinions but also to show the citizens what will be possible under the Ow (ibid.). An additional recommendation was that participation opportunities should include multiple stakeholder type instead of separating participation opportunities for citizens and businesses (ibid.).

Foort and Kevelam (2015) analysed if the Ow on paper guarantees sustainability. They analysed 4 factors: integration & coordination, monitoring & evaluation, public participation, and turning sustainability into concrete goals (ibid.). The researchers found that at first glance the Ow appears to meet all these 4 factors and places significant focus on sustainability (ibid.). They conclude however that their findings are limited as the Ow has not been fully implemented yet, and risks exist that could influence the actual outcome of the Ow (ibid.). There are not strong guarantees that the values espoused in the Ow will be achieved, and there are fewer opportunities for participation within certain steps as compared to before (ibid.). The biggest risk Foort and Kevelam (ibid.) argued was the flexibility in the Ow. There are not clear guidelines on how to decide between conflicting interests. Even within the act itself there are conflicting goals, namely sustainable development and economic development. The authors emphasize the risk that economic development could be placed above sustainable development (ibid.).

A report on the first pilots of the Ov looked at seven themes that are relevant to the Ov (Ministerie van Infrastructuur en Milieu, 2016). The seven themes were: cultural change, participation, integration, digitalization, focus, process approach, and up-to-date (ibid.). The recommendations based on their findings were to ensure long term issues are also given attention, bring internal (government) and external (citizens, organizations, businesses) stakeholders together, take the time for participation, and to use the Ov as a catalyst for social change (ibid.). However, overall the researchers found that the pilot Ov projects had positive results (ibid.).

Within the government there have been lots of articles written on the Ow. Civil servants have written on the chance for health and the environment to be considered in more decision making (Everhardt, & van der Meulen, 2016; Woudenberg 2016; Mineur, 2016; Backx & Doosje, 2014; Sap, 2014). These articles espouse that sustainability and health belong together and are generally positive about the influence the Ow may have on this. There is a risk that some of these articles mention that the flexibility will allow ignoring current health by-laws and focus on development instead. Other articles have questioned the promise of participation in the Ow (e.g. van Oenen, 2016), and that participation may not be the holy grail it is advocated to be in the Ow. Perhaps the most prevalent critique is that of the flexibility and the conflicting goals of the Ow to protect and profit/utilize the living environment (e.g. Jan Kruiter & Lammers, 2016).

2.2 Transition Management

Markard, Raven and Truffer (2012) analyzed 540 journal articles on transition studies and identified four prominent frameworks to explain transitions:

“transition management (Kern and Smith, 2008; Loorbach, 2010; Rotmans et al., 2001), strategic niche management (Kemp et al., 1998; Raven and Geels, 2010; Smith, 2007), the multi-level perspective on sociotechnical transitions (Geels, 2002; Geels and Schot, 2007b; Smith et al., 2010), and technological innovation systems (Bergek et al., 2008; Jacobsson and Johnson, 2000; Hekkert et al., 2007).” (p.955)

These four prominent frameworks are conceptual frameworks and aim to explain rather than evaluate transitions. Of the four transition frameworks Transition Management is perhaps the most applied. It is a prescriptive theory to influence transitions towards increased sustainability and includes evaluating and monitoring ongoing transitions (Markard, Raven,

& Truffer, 2012). This framework has also become associated with the Netherlands where it has gained prominence (Kern & Smith, 2008).

In an analysis of a project of the Dutch Ministry of Economic affairs using transition management, Kern and Smith (2008) found four issues with transition management. These issues resulted from transition management not considering the political nature of transitions (ibid.). First citizens often require short term results in order to maintain trust in the process but these short-term results can conflict with the long term goals that are fundamental to the transition management process (ibid.). Second, the transition management approach requires not focusing on any single technological solution, but rather allowing prominent solutions to emerge (ibid.). This can however be a challenge for investors and companies who find this approach non-committal, inconsistent and incongruent (ibid.). Third, transition management focuses on frontrunners and innovators instead of incumbents (ibid.). Analysis has found that these more established businesses and organizations have a significant role in transitions (Kemp & Loorbach, 2005). Fourth, while proponents of transition management advocate for including policies that control actions that go against the transition, in practice these policies seem to be lacking (Kern & Smith, 2008).

In a review on research on Transition Management van de Kerkhof and Wieczorek (2004) found a strong emphasis on learning in the process. They found that the essence of transition management was considered learning by doing and developing “knowledge from practice” (p. 736, ibid.). Additionally, they found that the role of the government within transition management to be inspiring learning collectively by bringing people together and thinking about the issues (ibid.). Van de Kerkhof and Wieczorek (ibid.) concluded that transition management is a process which:

- Is collective and includes civil servants, scientists and other stakeholders;
- Changes the ideas, perceptions and insights into the transition theme.

This definition is very similar to the definition of social learning. Furthermore, several authors within the transition management field have explicitly argued that social learning is a precondition for change within the transition management approach (Loorbach, 2010; Schäpke et. al., 2017). Social learning will be explored in the following section.

2.3 Social Learning

Early research within the field of social learning was limited in usefulness as there was no consensus or standard theoretical definition of social learning (Reed et. al., 2010). This made it challenging to advance the field of study, as definitions of social learning differed. Reed et. al. (ibid.) found that there were three key additional issues due to this unclarity in theoretical understanding:

1. Social learning is confused with methods that could be used to achieve social learning such as participation. The issue with this is that while it is possible that participation is used to induce social learning it is also possible that social learning occurs through other ways such as multimedia.
2. Social learning often includes potential outcomes of the process such as proenvironmental behaviour. While this is possible, it is also possible that social learning occurs but is not accompanied by increased proenvironmental behaviour.
3. There is often a lack of clarity between individual learning and social learning. As most learning occurs in social settings of some sort, there is a lack of clarity between individual learning and social learning.

Reed et. al. developed a definition of social learning in order to rectify this unclarity and allow for social learning to develop as a theory. They defined social learning as a process that must:

“(1) demonstrate that a change in understanding has taken place in the individuals involved; (2) demonstrate that this change goes beyond the individual and becomes situated within wider social units or communities of practice; and (3) occur through social interactions and processes between actors within a social network.” (Reed et. al., 2010)

This definition has become the standard theoretical definition used for social learning.

Although social learning does not need to include changes in proenvironmental behaviour and attitudes to be considered social learning, social learning has become a key tool for sustainability transition (Lee, 1993; Parson and Clark, 1995; Dryzek, 1997; Röling and Wagemakers, 1998; Stagl, 2007; Social Learning Group, 2001; Tàbara, 2003; Scott and Gough, 2003; Siebenhüner, 2004; Tàbara and Pahl-Wostl, 2007; Luks and Siebenhüner, 2007; Pahl-Wostl et al., 2007; Pahl-Wostl et. al., 2008; Pahl-Wostl, Mostert, Tàbara 2008; Antunes et al., 2009, as cited in Garmendia & Stagl, 2010). The reason that social learning is considered a key tool for sustainability transitions is that it could overcome the issues with complex uncertain and conflicting issues such as sustainability (Garmendia & Stagl, 2010).

Garmendia & Stagl (2010) conducted a case study of three natural resource and energy projects in Europe that used social learning. They found that although social learning did occur it occurred less than was expected and the depth of learning depended on the design of the participatory process, type of participants and the amount of time they invested (ibid.). The authors argue that large amounts of effort has gone into developing social learning as a theory, and more research needs to be conducted that tests for social learning empirically (ibid.).

A case study of nine projects involving marginalized farmers analyzed if social learning had occurred and what influence it had (Shaw & Kristjanson, 2014). Findings included that in projects that allowed for two-way learning (organizers and participants learned from each other), where socially differentiated groups were included, there was an increase in the potential for sustainable development outcomes (ibid.). Sustainable development outcomes included increased adoption of technologies, increased knowledge on natural species, and increased understanding of the development of marginalized farmers (ibid.). The study was unable to provide evidence on longer term sustainable development outcomes of a social learning approach. The scope of the research also prevented the researchers from analyzing the trade-offs between a social learning approach and more typical approaches, and the researchers recognize that social learning approaches can complicate decision making processes and create “messy” situations (ibid.). The researchers however consider social learning a significant concept that can be used to transition towards a more sustainable society (ibid.).

Schäpke et. al. (2017) developed an assessment framework to assess sustainability transitions and included social learning, empowerment and social capital. The framework was then used to analyse two transition management projects, one in Amsterdam, Netherlands, and one in Finkenstein, Austria. The researchers found that social learning, empowerment and social capital are interconnected and mutually supportive in bringing about transitions (ibid.). Schäpke et. al. (ibid.) concluded that while their framework was useful to analyse the

transition management projects in a point in time, perform longitudinal studies of transition movements is still a significant demand in transition management.

2.4 Conceptual framework

The framework for this study is based on the framework developed by Schöpke et. al. (2017). The framework was developed as an evaluative framework from a transdisciplinary perspective and focuses on social learning, empowerment, and social capital. Their model divides the societal effects of a transition project into three areas: outputs, impacts, and outcomes. In terms of this study, outputs would be the direct results from the Ov process and include the Ov that is produced, and the process experiences of those that participated directly in formulating the Ov. Impacts are the effects that the Ov process had on the participants and include: social learning and increased social capital. Finally, outcomes are the end result of the process. This would include structural changes and collective action that would directly impact the environmental sustainability of the area. Figure 1 shows how these three results from a transition project interrelate.

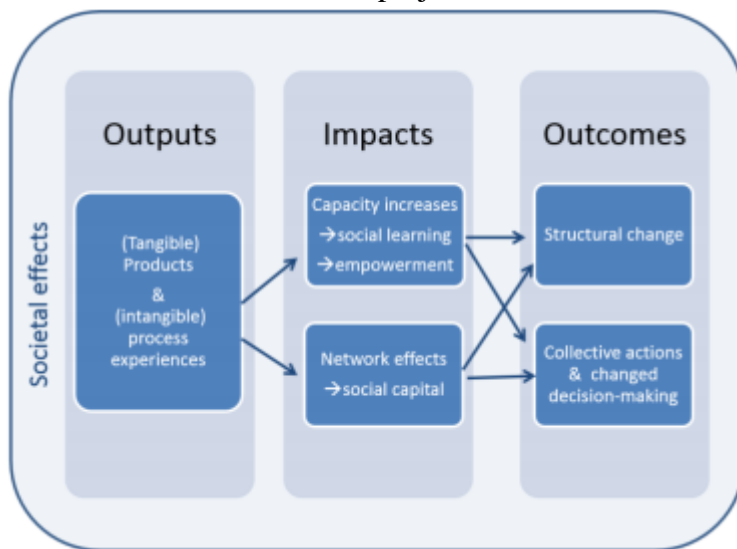


Figure 3 Societal effects of transition projects (Schöpke et. al., 2017)

Schöpke et. al. (2017) focused on the outputs and impacts within this framework for two reasons. First, they argued that these effects were more tangible and easier to assess. Second, they argued that the outputs and impacts can be indicators for the outcomes, despite the relationship being complex. In order to analyze the impacts, Schöpke et. al. operationalized the concepts of social learning, empowerment, and social capital. The full operationalization can be seen in Appendix A.

For the purposes of this study, the framework developed by Schapke et. al. (2017) was narrowed even more and only included social learning. Schapke et. al. (2017) described the model in figure 1 as not being linear in the sense that one leads to the next. Instead what effect occurs is dependent on the step in the process which is being undertaken. Schapke et. al. stated that:

“social learning changes the orientation of the process towards sustainability and increases the capacity to successfully deal with sustainability challenges. Empowerment makes sustainability-oriented actors and initiatives more powerful. Social capital, finally, may support sustainability attempts to be more resilient and innovative.” (p. 26)

With this in mind social learning is the most relevant effect for the vision making process as its purpose is most inline with social learning.

Based on an expensive literature Schapke et. al. (2017) considered social learning relevant to sustainability for three reasons. First, because it allows for adaptation “to a continuously changing and increasingly complex environment through collaborative action and dialogue” (p. 7). This aligns well with sustainability issues which are complex and continuously changing. Second, because an aspect of social learning is the changing of assumptions, values, awareness, and valuation of the topic that is being learned about (ibid.). This is highly relevant to environmental sustainability as it will require significant changes in attitude to transition towards a more sustainable society. Finally, the third reason is that social learning has the potential to have participants consider collective interests instead of only personal and to create joint action and understanding (ibid.). Since environmental sustainability is a collective issue, it is critical that individuals consider what is of the collective interest instead of personal.

The framework created by Schapke et. al. (2017) divided social learning into seven key aspects. These seven aspects can be seen in figure 2 below.



Figure 4 Aspects of social learning

For this study three additions were made to the framework of Schapke et. al.. (Increased) consideration for environmental sustainability, and (increased) integration for environmental sustainability were added to the framework in order to answer the primary research question of this study. One additional element was added a posteriori as it became prevalent during the coding of the interviews that changes in practices or approach to environmental sustainability was a significant aspect that the Ov was influencing. The framework on social learning by Schapke et. al. (2017) is more focused on individual change, whereas the addition of change in practices or approach includes institutional change. Since the Ov process is controlled by the government, at the national, provincial and municipal

level, institutional change in their practices or approach are highly relevant for inducing change. The full framework and operationalization can be found in Appendix B.

The hypothesized interaction between these factors is summarized in figure 3. Social learning leads to increased consideration, integration or both and institutional change can act as both an intermediate step between social learning and consideration and integration or as a precondition for social learning to occur. Once there has been increased integration and consideration it is possible that this results in increased social learning and that the cycle repeats. For the purposes of this study this relation is an assumption and would require further testing in future testing to confirm. This relation is based on the same broad conceptual understanding of the societal effects of transitions used by Schöpke et. al. and can be seen in figure 1.

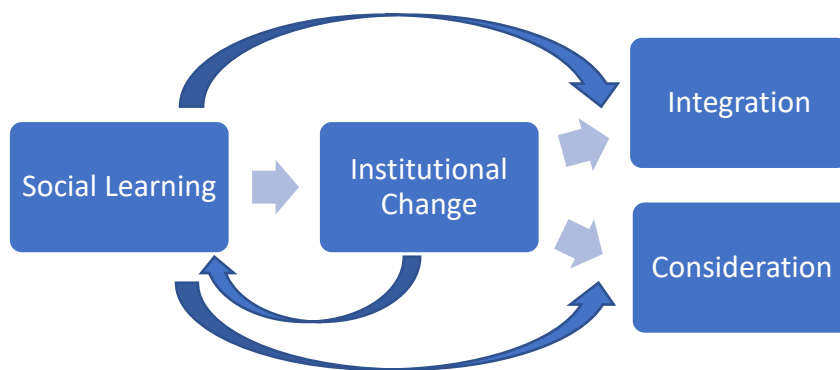


Figure 5 Interaction between conceptual factors

Chapter 3: Methodology

In order to answer the research question, *what influence does the process of developing an Omgevingsvisie have on the integration of and consideration for environmental sustainability issues*, qualitative methods were used. To research social learning qualitative methods are often used (see Garmendia & Stagl, 2010; Schäpke et. al., 2017; Shaw & Kristjanson, 2014). This is because social learning is focused on the thoughts, feelings, and experiences which better suit a qualitative approach. Additionally, social science studies often use a case study approach (see Garmendia & Stagl, 2010; Schäpke et. al., 2017; Shaw & Kristjanson, 2014), which is used to analyze a particular case or project and the influence this has on participants and organizations. Baxter and Jack (2008) argue that case studies are used “to study complex phenomena within their context” (p. 544) and that case studies can be used to “evaluate programs” (p. 544). Since this study aims to research a complex phenomena within its context, consideration and integration of environmental sustainability, and evaluate a program, the Ov, a case study approach is most appropriate. Furthermore, this study uses an exploratory approach to the case study methodology as this is used when the project being evaluated does not have a set of simple, singular outcomes (Yin, 2003).

3.1 Data Collection

Although multiple sources and approaches of collecting data are often used in case studies (Yin, 2003), qualitative semi-structured interviews were used to collect data. This is due to the limited scope and timeframe of this study. This follows research on the framework the study by Schapke et. al. (2017), on which the framework for this study is based on, and also used qualitative semi-structured interviews for the majority of data collection. Semi-structured interviews allow for the exploration of complex thoughts, experiences, feelings and their affects (Longhurst, 2016). Given that the influence the Ov process had on participants is complex and varied, the flexibility that semi-structured interviews is advantageous to explore the impact the Ov process has had on the participants and their organizations.

3.1.1 Sampling

Participants were selected using both purposive sampling and snowball sampling. Since the Ov has not yet been fully implemented participants were purposefully selected from provinces that had participated in the pilot project of the Ov. Contact information for project leaders of the Ov's was found online at:

<https://aandeslagmetdeomgevingswet.nl/slag/zelf-aan-de-slag/pilots-experimenten/pilots/>

There were only 2 provinces who participated in 2017-2018 pilot Ov projects, Zuid-Holland and Gelderland, which made for 2 cases. The 2 participants who agreed to an interview from these cases were asked if they felt there were other individuals or groups who the researcher should contact for an interview, which resulted in one additional participant from the Rijkswaterstaat which is a part of the Ministry of Infrastructure and Water Management is. Additional participants were contacted but either the researcher received no response, or no interview could be scheduled in the allotted time.

3.1.2 Interview Guide

The semi-structured interview guide was developed based on the conceptual model as described in chapter 2. Although each question was developed based on a certain aspect of the conceptual model, questions intended to provide results for one aspect often provided interesting responses for multiple aspects of the conceptual model. The interview guide was used to structure the interviews, but variation existed in the order of the questions asked and what questions were asked based on the answers provided by the participants. The interview guide was translated into Dutch by the researched in order to conduct the research. A copy of the English interview guide can be found in Appendix B. What follows is a detailed list of the questions and their relevance to this study.

The interviews began with a reading of the introduction to the interview. This gave participants a sense of what the research is about, provided a definition of sustainability, detailed the expectations of the interviewee, and asked permission to record the interview. Participants were asked if they had any questions, and if they did not or once their questions were answered the interview began.

Additional questions were used throughout the interview to clarify a point they made, or to ask for more details about something they mentioned. In particular, clarifying questions were asked as to the relevance of the Ov to the answer they provided, and if the participant believed/observed that others also felt/thought/acted the way they did. Some questions were also not asked due to time constraints or the question already having been answered in a previous answer.

The first question, what do you think the goal of the omgevingswet/omgevingsvisie is, gave a general sense of what the participant thought about the Ow. While the goal of the Ow is written in the act itself, conversations the researcher had before conducting the interviews about the Ow made it apparent that different people had different views on what the goal actually was. Participants thinking that the goal of the Ow was not related to sustainable development could provide context to the answers provided later in the interview.

The second question, did you learn anything new about environmental sustainability, was based on the first aspect of social learning from the conceptual model: participants report to have acquired new knowledge, insights, etc. about environmental sustainability. This question aimed to ascertain if the participant had learned something new about environmental sustainability due to the Ov process.

The second question closely overlapped with the third question which asked: has your awareness of or concern for environmental sustainability issues increased? This question was based on the third aspect of social learning: participants express increased concern about/awareness of sustainability problems. Additional clarifying questions of:

-do you feel more responsible;

-do you feel an increased need to do something about environmental sustainability issues;

Were based on the fourth aspect of social learning: Participants report themselves to be (increasingly) responsible for causing and/or solving sustainability problems. These questions aimed to determine if the Ov process led to the participant becoming more aware of environmental sustainability issues, and/or if the process led to an increased feeling of responsibility. This question could provide insight into if the Ov process leads to participants attempting to do more about environmental sustainability as a requirement of that would be being aware of these issues, and feeling responsibility to act on them.

The fourth question asked if their conception of environmental sustainability has changed in terms of their values or assumptions. This question was based on the second aspect of social learning: participants report changes of values, assumptions and perceptions about environmental sustainability. This question focused on if the Ov process influenced not just the knowledge the participants had about sustainability but also their values and assumptions. Valuing sustainability more could lead to it being considered more in decision making, or if it is assumed to be something different than what they thought before could lead to the integration of sustainability into decisions it previously would not have been considered in.

The fifth question focused on if: the way the province/city integrates and considers sustainability issues into planning changed. This is directly related to the integration and consideration of environmental sustainability into decision making. This question very directly relates to the main research question of this study although did not have to be asked very often as participants often answered it in other responses.

The sixth research question, do you feel there is a joint vision of a sustainable future, in addition to the clarifying questions of: was the process collaborative and did you feel you had adequate dialogue with the other participants, focused on the fifth and sixth aspects of social learning. The fifth aspect of social learning is: participants report jointly developing a vision of a sustainable future. The sixth aspect of social learning is: participants report increased collaborative action and dialogue on sustainability challenges. These questions really focused on the collaboration and participation that happened during the Ov process and what results it led to. The answers to these questions could provide insight into how collaborative the process was and how this influenced the participants and the eventual vision created by the process.

The last question from the interview guide, did you learn from others during the process, and did others learn from you, were based on the seventh aspect of social learning. This aspect is: participants report that there has been a spreading of (sustainability) insights from individuals to further group members and beyond and that they have learned from one another about environmental sustainability. This question aimed to provide results relevant to how social the learning was and if it spread beyond just the individual. The Ov process can only directly include a small percentage of the population in the process so it is crucial that the learning does not remained contained to those directly involved.

3.2 Data Analysis

Following the conceptual framework detailed in chapter 2, which is based on the framework by Schöpke et. al. (2017), the interview transcripts were first coded using the 9 operationalized aspects relevant to this study's research questions. This is a priori coding which can be used when basing research on a framework from other research (Stuckey, 2015). One additional code was developed a posteriori as an important aspect emerged from the coding process that was of relevance to the research question. During the coding process, memo's were written on the significance of each quote to the assigned code, many quotes had multiple assigned codes, which received notes for each code. Quotations were then drawn from the transcripts and the memo's were summarized for each code and participant in order to describe the thoughts and feelings the participants had about the Ov process.

Chapter 4: Results

The following chapter describes the results from the data analysis. Each section examines one of the concepts from the conceptual framework used for this study (appendix B).

4.1 Integration

Integration was operationalized as: participants report increased integration of environmental sustainability into decision making. Two quotes from the first interview, three from the second, and four from the third were coded as related to this aspect. All participants felt that there was increased integration of environmental sustainability into decision making. One participant mentioned that it is possible to call something integrated without actual integration of decision making taking place, but that the government is actively taking steps in trying to make decision making as integrated as possible.

Interview 1

The first participant felt that all sectors related to the physical living environment are integrated into the law, in order to take into account how they interrelate and strategically create plans and visions that balance out the pros and cons. They provided the example of sustainability no longer just being a separate program within the organization anymore but it being integrated into other programs that the organization undertakes.

Interview 2

The second participant felt that ES is more integrated into decision making due to the Ov. The interviewee stated what previously would have been 5 visions now are 1. They clarified that while it is possible that those 5 visions just become separate chapters into a singular vision that they have truly become integrated. The government has changed the system in how they create and represent their vision in order to be more integrated. The participant explained that this new system is created due to the Ov, and felt that it effectively increases the integration and cohesiveness of the decision making system.

Interview 3

The third participant felt that the goal of the Ov is to be able to make a much better integrated decision than a sectoral approach would provide. They felt that in the real world nothing is truly separate, so it makes sense not to make decisions separately. Allowing for a more integrated approach allows you to consider how the different sectors influence each other, and how you can balance these to create the optimal living environment. The interviewee commented that previously decisions on one sector would sometimes unintentionally negatively impact another sector, whereas now there is an increased consideration for the interaction between sectors. They provided the example of a new road being constructed now not just considering connectivity but also economic development and environmental sustainability.

4.2 Consideration

Consideration was operationalized as: participants reporting increased consideration given to environmental sustainability in decision making. Three quotes from the first interview, two from the second, and five from the third were coded as related to this aspect. Generally the participants felt that the Ov has increased the consideration given to

environmental sustainability. All three respondents however delineated this response as being unsure how much of this was due to the Ov, or if it was just part of a larger trend.

Interview 1

In the beginning of the interview the participant responded that in his opinion the Ow is not intended to protect the environment more but to allow for more development. While this may not be the opposite of more consideration for ES, from this response it seems that the Ow does not place a high priority on ES. Later in the interview the participant stated that ES is “a really big theme in all of those omgevingsvisies, every municipality has in their omgevingsvisie an ambition of energy neutrality”. The participant continues and implies that this is just strengthening an ongoing trend that is already happening and stated that what the Ov does is “gives a logical place where [environmental sustainability] belongs”. After explaining that the province was already involved in sustainability initiatives before the Ow, the participant expressed that the Ov has brought about more consideration because it has brought together people who normally would have worked separately. In the experience of the participant in the Ov process the two topics that are most discussed are climate change adaptation and renewable energy transition.

Interview 2

The second interview participant provided two examples of increased consideration for environmental sustainability. Previously environmental issues, the participant explained, had a difficult time influencing development plans, such as a new housing development. The way it worked was the housing development was going to happen and after the decision was made there was a discussion on how to decrease the environmental impact a bit. Now the participant is noticing that the Ov is emphasizing and bolstering the weight of environmental values to such a degree that it is possible that housing developments will not even be allowed in certain areas at all. While the participant notes that this would be unthinkable in the past, they felt that it was already heading in this direction. The second example the participant provided was the rebuilding of the provincial government building. When the government started the process four years ago, sustainability was an afterthought. This plan was changed to be make sustainability the priority despite it costing significantly more. It was unclear how much of this change in decision was influenced by the Ov, however the participant did express that this was done to be an example to municipalities and others.

Interview 3

The third participant had the highest number of quotes relating to consideration for environmental sustainability. They explained that the integrated approach of the Ow, and the goal of improving the physical living environment has caused people to consider environmental sustainability issues who previously would have given them little consideration. They stated that the “advantage of the omgevingsvisie... [is] the integration and that forces everyone to think about [environmental sustainability]”. They provided the example of building a road, which previously would have used a non-integrated approach, but now uses an integrated approach that will not only consider connecting point A to B, but also how the road can be made as sustainable as possible. As with the other participants, the third interviewee stated that the consideration for ES has never been larger even outside of the Ow, so the increased consideration might just be part of a larger trend.

4.3 New Knowledge

New knowledge (SL1) was operationalized as: participants report to have acquired new knowledge, insights, etc. about environmental sustainability. Seven quotes from the first interview, six from the second, and four from the third were coded as related to this aspect. All participants learned new things due to the Ov process. While one participant stated that they regularly acquired new knowledge about ES before the Ov, they felt the Ov increased how much they learn. Most of the new knowledge was practical knowledge and was learned through interactions with others.

Interview 1

The first participant primarily gained insight into the complexity of ES due to more actors becoming involved. The participant became more aware of the complexity of ES due to the Ministry of Health becoming increasingly involved. This added viewpoint of health presented issues and insights about ES which the participant had not previously considered. The interviewee learned about the many different possibilities for renewable energy besides solar and wind through discussion with other stakeholders. Additionally the interviewee learned about the high demand for wind and solar farm locations and that Dutch municipalities are receiving phone calls from German energy producers seeking land.

Interview 2

The second interviewee felt they learned a lot about ES from the Ov process. While the participant felt they were learning new things before the Ov, they felt it was a lot less. The participant already knew the Brundtland definition of sustainability, and understood sustainability from a theoretical perspective but the Ov has made it a much more lived and deeper understanding. The knowledge they gained was of local examples of environmental sustainability issues, and potential frameworks and solutions to deal with these issues. Additionally the participant gained new insight into the process of developing an effective vision and the organization surrounding that.

Interview 3

Participant 3 sees part the role of the provincial government in the Ov process is to bring people together to share insights and knowledge about ES. The interviewee noticed that bringing people together results in better ideas than the province would be able to come up with on their own. Through this process of learning from each other the participant came to realize that the possibilities of sustainability go beyond simply energy conservation and renewable energy production. One negative insight that the participant made that while people are very willing to set serious goals, there is far less initiative to do the things needed to achieve those goals. Once it comes to doing the things needed to achieve those goals there can still be an attitude of nimbyism.

4.4 Changed Values, Assumptions and Perceptions

Changed values, assumptions and perceptions (SL2) was operationalized as: participants report changes of values, assumptions and perceptions about environmental sustainability. Four quotes from the first interview, eight from the second, and six from the third were coded as related to this aspect. Two of the participants felt there have been very significant changes to the values and perceptions of ES in the last number of years within the government. These changes happened irrespective of the Ov, however all three participants felt their values and perceptions have broadened due to the Ov.

Interview 1

The first participant did not feel that their perceptions or values surrounding ES had changed significantly unless health is considered related to ES. If this is included they feel that their perception of sustainability has broadened and become more complex. During the Ov process the participant learned about pollution from a poultry farm interacting with pollution from a nearby highway and this causing negative health impacts for the residents downwind. This changed the interviewee's perception of ES as more complex and inter related than they previously had thought.

Interview 2

Interviewee 2 feels their values surrounding ES have changed a little bit due to the Ov process. Primarily that their perception of sustainability changed from an abstract, theoretical perception to a lived experience. Learning about local issues gave a sense of urgency to ES. Despite the participant noting that achieving change in values is difficult in a bureaucratic organization, the participant has noticed changes within the government. The participant stated that 8 years ago there were government officials openly questioning climate change in internal communications in the government. The participant felt that doing so now would be unthinkable. Furthermore, the plans for a new government building changed from considering sustainability as an afterthought to it becoming a primary consideration. Additionally, the participant explained that permitting housing developments used to had a similar process, where sustainability was considered as an afterthought, and now housing developments might not even be approved in certain areas due to ES reasons. These three examples provided demonstrate a change in the perception and values of ES on an institutional level. It remains difficult to discern if these changes are directly influenced by the Ov process.

Interview 3

Similar to participant 2, participant 3 feels there has been a change in the perception of ES in the last 4-5 years. The participant recounted how the financial crisis caused a lot of focus on employment and economic development. Now that the financial crisis has receded, the participant feels the importance given to sustainability has gone from not being very important to being in the forefront of everyone's minds. It remains unclear if this was directly related to the Ov process or what would happen if economic issues would become more significant. The participant did state however that the Ov is "going to turn the dials on how we form norms, how we work and what assumptions we make", which would imply that the Ov has the ability to change values, assumptions and perceptions of ES. On a personal level the participant felt their perception of ES has broadened and now includes biodiversity, circular economy and water quality. This change in the perception of ES came about due to the discussions happening during the Ov process.

4.5 Increased Sustainability Awareness

Increased sustainability awareness (SL3) was operationalized as: participants expressing increased concern about/awareness of sustainability problems. Two quotes from the first interview, three from the second, and one from the third were coded as related to this aspect. Only one participant really expressed increased concern about an ES issue and noticed that this was happening at an institutional level as well. While the other participants did not express increased concern about ES, all three participants did however express increased awareness of ES issues.

Interview 1

The first participant gave two examples of ES issues that they have become more aware of due to the Ov process. The first is a chicken farm that emits pollution which in turn interacts with the road pollution of a nearby highway and this causing negative health impacts on the local population. The second example is of fine particulate matter being emitted by ships in a major river system. In both examples the participant did not state that they became more concerned about these issues and had a more practical perspective of the issues. The participant did state that these issues should be tackled and that they would look at what they could contribute to a potential solution.

Interview 2

The second participant expressed becoming more concerned about ES issues alongside becoming more aware of them. They provided the example of becoming more aware of ground subsidence and upon learning how pertinent this issue was becoming more concerned about solving the issue. This participant also expressed the feeling that there was increased awareness of ES issues at an institutional level and that this effects decision-making processes. The participant felt this was due to the Ov process, particularly due to how decision making is more integrated.

Interview 3

Participant 3 did not provide examples of physical ES issues that they became more aware of but did express becoming more aware of the issues in trying to implement ES issue solutions. They felt that when it comes down to acting on ES issues money and location become an issue and that it will take significant practice to come up with collective solutions. An example they provided is the siting of wind turbines, which many want but not in their backyard (nimbyism).

4.6 Increased Feeling of Environmental Sustainability Responsibility

Increased Feeling of Environmental Sustainability Responsibility (SL4) was operationalized as: participants report themselves to be increasingly responsible for causing and/or solving environmental sustainability problems. Three quotes from the first interview, nine from the second, and two from the third were coded as related to this aspect. All participants either personally feel more responsible or notice that there is increased responsibility at an institutional level for solving ES issues. All three participants mentioned that this change has been occurring before the Ov, so is part of a larger trend, but all agree that the Ov is increasing to some degree the initiative that is taken with regards to ES issues. None of the participants report themselves or their respective institutions feeling more responsible for causing ES issues.

Interview 1

The first participant believes that the Ov has strengthened the resolve of the government to do something about sustainability. All the municipalities have energy neutrality as a major theme and goal of the Ov. The Ov gives sustainability a logical place within governments and the participant believed that this is why there is increased responsibility by governments to do something about ES issues. The participant felt it was important to note that government on all levels have been taking more responsibility and initiative to deal with sustainability for longer. This makes it difficult to tell what impact the Ov has. On a personal level the participant has become more involved in developing solutions to ES issues due to the Ov. Sustainability used to be its own department, but due to the Ov there is a lot more collaboration with other programs, such as consulting

municipalities about their visions. This has forced the participant to be more responsible for sustainability, as it is included in their job now, but has also made them feel like they are more responsible.

Interview 2

The second participant told of 8 years ago someone openly questioned climate change on the intranet of the government: “You have to realize that 8 years ago we had civil servants... openly questioning climate change...but that really does not happen anymore”. This increased responsibility for solving ES issues can also be seen in the changes the provincial government has made to the plans for their new building. The participant explained how the plans were changed when they realized that as the provincial government they serve as an example and must show that they are willing to make the changes as well. Now their plan is sustainable as a priority and will end up costing significantly more, but they consider it important. In another example the interviewee sees the potential now for the government to not allow housing developments in certain areas due to environmental sustainability issues. This would have been unheard of previously. The participant notes that things were headed in this direction even without the Ov but that the Ov has strengthened or increased how quickly this shift was going to happen. The participant has noticed that the resistance to sustainability has decreased and that this is leading to visions that are higher quality with regard to sustainability. This could indicate that there is an increase in the responsibility to contribute to solving ES issues. On the other hand, the participant stipulates that there will always be people who disagree, but they believe you do not want everyone blindly agreeing anyways. Furthermore, the participant sees that it is challenging for a bureaucratic organization that has existed for so long to quickly change its perspective, and take more responsibility, on issues like ES. On a personal level the participant feels more responsible and notices that they try harder to include sustainability related issues in the Ov than other issues which do not seem as pressing to them. This is because they have realized the urgency of sustainability issues due to the Ov process.

Interview 3

The third participant feels there has been increased responsibility taken by the government to deal with ES issues ever since the financial crisis of 4-5 years ago became less prominent of an issue. This makes it unclear to the participant if the increased responsibility that the government is taking is due to the Ov because it was already trending towards that. The participant does believe that the Ov has helped bring attention to environmental sustainability. The participant thinks the Ov will give extra direction towards making decisions and taking sustainability into account.

4.7 Ability to Envision a Sustainable Future

Ability to envision a sustainable future (SL5) was operationalized as: Participants report jointly developing a vision of a sustainable future (including radical change). Seventeen quotes from the first interview, six from the second, and six from the third were coded as related to this aspect. All participants felt that there was increased collaboration as compared to before the Ov. All participants mentioned increased collaboration within the government but only one participant explicitly mentioned collaboration with citizens. All participants mention challenges that come along with creating a joint, collaborative vision.

Interview 1

The first participant mostly referred to the collaboration that happens within the provincial government. The participant felt that the Ov is approached very broadly and considers many aspects and perspectives. Within the government they consult the different departments and see if there are any conflicts or if they can assist. Additionally, they look if certain larger scale issues can be tackled at a higher level of government or with collaborations between different levels. For example, municipalities wanting to take initiatives that require large scale funding, could benefit from the assistance of the province. Although the national, provincial and municipal governments all have different responsibilities they still make sure that their separate visions are compatible with the others. The different government ministries also lend their experience and expertise in helping the provinces and municipalities form their visions. The interviewee felt that there are ministries which before the Ov would have little input on this kind of thing that are now being encouraged by the Ov process to bring new themes and issues to the table to discuss. The participant also mentioned that there is collaboration with businesses and with citizens. The participant felt that generally a lot of people were brought together to create the Ov. However, the participant believed that there is a point at which you have to stop consulting citizens, because that could just go on forever. The participant also observed that for some small municipalities creating a collaborative, integrated vision is difficult due to a lack of expertise.

Interview 2

The second participant felt that the Ov process increased the collaboration but that there still needs to be more collaboration. The participant explained that the Ov encouraged them to take a different approach which made it more collaborative. Instead of having 5 visions in 5 separate booklets, or one booklet with 5 separate visions in it they decided to scrap the booklet and try and create an online database that makes it easier to show the connections between everything. Furthermore, instead of a core team writing the vision and others advising them, the vision is written by everyone and the core team just advises on how to word things and makes sure it is cohesive. Because this way of doing things is so new, they have not figured out how each department interacts or relates to the other department. It will never be that everyone agrees and that a vision is truly collective, but the participant does notice that the resistance to change is decreasing and this is increasing the quality of the vision. The interviewee mentioned that the Ov is only a vehicle for pertinent societal issues but did not make specific mention of citizens being involved in the process.

Interview 3

The third participant feels there is an increasingly collaborative vision. However, while the participant believes there is a joint vision for the future, they believe there is less agreement on how to implement that vision. The participant provided the example of siting wind turbines which causes conflict because some want it here but not there. The interviewee explains that the provincial government could just say that wind turbines are going in a certain location but instead they consult municipalities, and other stakeholders to see if they can come up with a solution that suites everyone. The participant also mentioned the provincial government working collaboratively with other levels of government, businesses, partners, and citizens. They have invited these stakeholders to participate in the creation of the vision. All that the province provides is the topics and then leave the discussion to the stakeholders. There are multiple community meetings per year where the vision is discussed, and there is an online forum where people can discuss issues.

4.8 (Increased) Ability to Tackle Environmental Sustainability Challenges through Action and Dialogue

(Increased) ability to tackle environmental sustainability challenges through action and dialogue (SL6) was operationalized as: participants reporting increased collaborative action and dialogue on environmental sustainability challenges. Ten quotes from the first interview, seven from the second, and ten from the third were coded as related to this aspect. All three participants feel there is increased collaborative dialogue on ES issues. While participants provided examples of increased action on ES issues they are uncertain if this was influenced significantly by the Ov. Finally, one participant felt that despite significantly more collaborative dialogue there is a lack of collaborative action.

Interview 1

The first participant went to municipalities and provinces in order to provide advice on their Ov. The participant helped determine what is practical and where to best invest the municipalities energy when it comes issues relevant to the participant's expertise. One example of this is a map which was created showing suitable locations for renewable energy. The participant then presented this to the municipalities who then consulted local energy companies to install renewable energy. The participant also mentioned observing increased collaborative dialogue between different levels of government due to the Ov. The participant felt that the Ov has awakened a lot of stakeholders who previously would not have become involved in sustainability issues. However, the participant does not know if municipal, provincial or the national governments are taking more action on sustainability because they have been doing so for a while. Therefore, while the participant felt that there are more actors involved and there is increased dialogue due to the Ov, the participant is unsure if there is also increased collaborative action due to the Ov.

Interview 2

The second participant described how the provincial government has changed the format of their visions to increase the collaborative dialogue and action on issues. Despite this, the participant found it difficult to discern to what degree the Ov had increased collaborative action but did feel that there was an increase. It was difficult for the participant to determine how the Ov had influenced the collaborative action and dialogue since this was already increasing over the last few years. The participant believed there was an increase because while those already involved in sustainability did not become more involved, they observed the number of people involved increasing. The participant expressed that there is more consensus within the government which makes collaboration easier, and the Ov gives a place for that to happen. The participant detailed how the plan for their new provincial building has changed to be sustainable as a priority. The participant also explained how housing developments could no longer be permitted in certain areas due to ES issues. While both are examples of increased collaborative action, it is uncertain what influence the Ov had on them.

Interview 3

The third participant experienced that the attention to sustainability has never been higher but has yet to be seen if it will lead anywhere. They felt that there is lots of collaboration on setting the vision, but when it comes to doing something, there is still a lot that needs to be done. The implementation is however still in its early stages, so it remains to be seen what impact it will have. The participant did realize that there were more possibilities

to react and adapt to climate change than they previously considered. This realization happened due to the increased collaborative dialogue on ES due to the Ov.

4.9 Transmission of Learning to other Individuals and Groups

Transmission of learning to other individuals and groups (SL7) was operationalized as: Participants report that there has been a spreading of (sustainability) insights from individuals to further group members and beyond and that they have learned from one another about environmental sustainability. Three quotes from the first interview, three from the second, and four from the third were coded as related to this aspect. All participants felt that there was increased spreading of insights on ES due to the Ov. These changes all seemed related to the different approach taken as compared to before the Ov.

Interview 1

The first participant provided evidence that the Ov is causing the spreading of insights into ES from individuals to others involved in the Ov process. The provinces and municipalities are consulting the ministries on their areas of expertise. This is spreading insights about the relation between ES and health for example. The participant also told of how they shared what they learned from being involved in one municipality with other municipalities. When one municipality is trying to achieve something, the participant is able to share what they have observed as working for other municipalities. In another example the participant shared a map with suitable locations for renewable energy with municipalities who then shared that information with energy companies.

Interview 2

The second participant felt that there was already spreading of insights from individuals to group members but that there is significantly more due to the Ov process. The participant feels that this has come about due to the integrated approach the government has taken to achieve the goals of the Ov.

Interview 3

The second participant feels that some stakeholders will come up with better ideas than the province would be able to come up with on their own. The insights of these stakeholders are being shared with the province. As an example of this the participant learned about new possibilities that exist in terms of renewable energy, and that ES is more than just CO₂ reduction. The government also actively seeks out insights into ES when they themselves do not have the answers.

4.10 Institutional Change

Institutional change was operationalized as: participants reporting changes in practices or the approach to environmental sustainability. Two quotes from the first interview, six from the second, and eight from the third were coded as related to this aspect. All participants noticed changes in the practices and approach to ES. Most of the changes they noticed was a more integrated approach. One of the participants expressed it being difficult to determine what effect the Ov precisely had since changes were already occurring.

Interview 1

The first participant has observed that ES is more integrated into all the programs that the ministry does. Whereas before there would have been a separate sustainability group, with its own programs, sustainability and this group now are integrated into other programs

such as advising municipalities on their Ov. Generally, the participant felt that the Ov has brought together a lot of people that normally would have worked separately.

Interview 2

The second participant noticed significant changes in the practices and approach to ES. The participant found that there was more: learning, collaboration, and consideration of sustainability in decision making. While the participant thinks there are roughly the same number of people involved but in a completely different way. Before the Ov there was a core team that wrote a vision and they consulted others for input and feedback. Since the Ov that has flipped where everyone writes the vision and the core team only advises them on how to word things or integrate them. This change has influenced how integrated the different government departments are. Previously the participant felt that integration within the government was defined as not being bothered by others. Now the Ov is creating much more a sense of doing things as a collective. They consider the vision from a more integrated approach because all the visions are put in the same vision now. They also decided that a text document was not the best way to represent the integration and collectivity of the relationships between different topics and issues. The digital database system they are now using allows for more complex relationships and interactions to be represented and easily communicated. Previously the soft sector issues, as the participant called them, would have a difficult time having much influence on decisions. Now because it is more integrated into the decision-making system it has a much higher weight in decision making. The participant provided the hypothetical example of a permitting housing developments. Previously these would have been cleared to happen and environmental sustainability would just be considered as an afterthought. Now the participant conceives it feasible that the development might not even happen due to environmental sustainability reasons. Although the participant says this would have been unthinkable years ago, they did mention that things were heading this way without the Ov. Despite this trend, the Ov did clearly change the practices and approach to ES.

Interview 3

The third participant felt that there have been changes in the practices in the last few years as the economic crisis subsided and sustainability began to take more of the forefront. The participant does not believe that this was directly caused by the Ov, but does believe it brought more attention to ES. The participant did define the goal of the Ov as allowing for more balanced and integrated decisions. This demonstrates that the Ov is changing the practices because decisions are made from an integrated standpoint instead of segregated. As an example of this, a discussion during Ov process caused them to include a wider range of topics under the umbrella of sustainability. This includes biodiversity, climate change adaptation, circular economy, and energy transition. The participant described the Ov as a lens that the government officials put on to make decisions. Viewing issues through the lens of a vision happened before the Ov but what seems different is the integration of sustainability into decisions that typically would not have considered sustainability to a significant degree.

Chapter 5: Discussion

The following chapter discusses the relevance of the results to the research questions of this study. Each research question is addressed separately in its own section and then at the end there is an overall conclusion of the study.

5.1 Integration of and Consideration for Environmental Sustainability

This section discusses the following question:

What influence does the process of developing an Omgevingsvisie have on the integration of and consideration for environmental sustainability issues?

5.1.1 Integration

From the experience of the participants of this study the Ov increased the integration of environmental sustainability in decision making. Participants described how the Ov has changed what previously would have been separate visions and departments into a decision-making process that integrates environmental sustainability and all fields relevant to the physical living environment. This change seems to be both structural but also personal. The structural change is the Ov process and that it requires the creation of one vision instead of separate visions. The personal changes are individuals within the government integrating environmental sustainability into decisions that they make. It seems that the structural changes led to the personal changes, but participants did mention that there was already an existing trend for increased prominence of environmental sustainability in decision making. These personal changes seem to be result in institutional changes through the creation of the Ov, creating a positive feedback loop.

Although participants report increased integration of environmental sustainability it is possible as Kern and Smith (2008) critiqued that when it comes to the actual policies that this integration will be less present. Additionally, despite environmental sustainability being integrated into decision making it is possible that it is given less weight than other considerations such as economic development. If these potential downfalls occur will have to be seen once the Ov is fully implemented. This reflects one of the major critiques of the Ov so far which is the flexibility (Foort & Kevelam, 2015). This flexibility allowed the integration of environmental sustainability into decision making but could also allow for other aspects to be given a higher weight in decisions.

5.1.2 Consideration

While all the participant felt there was increased consideration for environmental sustainability, participants felt uncertain if this was caused by the Ov process. The participants have all noticed that the consideration for environmental sustainability has been increasing in the past number of years especially as the Dutch economy is no longer as pressing of an issue as it was 4-5 years ago. Examples were provided of all municipalities including goals of energy neutrality, environmental issues being considered significantly more in approving new housing developments, and environmental sustainability being considered in the construction of roads. While participants were unsure how much influence the Ov process had on this increased consideration, one participant felt it “gives a logical place where [environmental sustainability] belongs”. This is in line with theory on transition management which is to speed up transitions, rather than create them from scratch.

The flexibility of the Ow presented an issue in the consideration of environmental sustainability. One participant felt that the goal of the Ow was not to protect the environment but to allow for more flexibility and ultimately easier approval of development projects. This also presents the potential issue of difficulty in actually writing policies that ensure environmental sustainability (see Kern & Smith, 2008). One participant has already noticed that while there is increased consideration of environmental sustainability in the vision forming process, when it comes to action there is still a sense of “not-in-my-backyard”. The participant felt that it would still take a significant amount of work to get to a point where environmental sustainability is considered in decision making and there is consensus on action and not just goal setting. A different participant however provided the example believing that some housing developments would now not be approved due to environmental reasons. The participant additionally provided the example of the provincial building being constructed now placing a heavy emphasis on sustainability despite initial plans that only considered it as an afterthought. This once more reflects the issue of the flexibility of the Ow.

5.2 Perception of Environmental Sustainability

This section discusses the following research question:

What influence does the Omgevingsvisie process have on individuals’ and government’s perception of environmental sustainability?

The changes that have occurred to the perception of environmental sustainability due to the Omgevingsvisie are difficult to determine. There have been significant changes in the government within the last decade. One participant told of how 8 years ago government officials were openly questioning the validity of climate change whereas now that would be unthinkable. These changes likely would have happened without the Ow, but as one participant stated the Ov is “going to turn the dials on how we form norms, how we work and what assumptions we make”. So while it seems unclear how much effect the Ov has on the perception of environmental sustainability, it is influencing the perception to some degree. If anything, the Ov seems to be strengthening or speeding up the changes that were already occurring.

According to the participants the Ov process did broaden their perception of environmental sustainability in particular the inclusion or interaction of health with environmental sustainability. This reflects many articles written on the possibility for the Ow to increase the consideration of health and its relation to the physical living environment (Everhardt, & van der Meulen, 2016; Woudenberg 2016; Mineur, 2016; Backx & Doosje, 2014; Sap, 2014). Other topics that participants also included in environmental sustainability were: circular economy, biodiversity, and water quality. Therefore, it seems that the Ov process is achieving the potential for it to increase the consideration of other topics that interact with and are influenced by the physical living environment.

On an institutional level, the perception of environmental sustainability seems to have significantly shifted as well. Whereas before environmental sustainability was a separate program now it seems that it is something that is considered in most decisions that are made. Environmental sustainability is perceived as something that is necessary rather than something that needs to be debated. While these changes were already occurring before the Ow, the Ov process seems to have given a place for these changes to happen. The discussions within the government due to the process also seem to be changing the perception on an individual level as people are brought together who normally would not interact. So it seems

that the role of the government in transition management, bringing people together to have social learning occur about the transition theme, as outlined by van de Kerkhof and Wieczorek (2004) is being fulfilled.

5.3 Social Learning

What influence does the Omgevingsvisie process have on social learning about environmental sustainability?

The operationalization of social learning used in this study had 7 aspects. What follows is a discussion of each aspect, followed by a discussion on if these collectively suggest social learning about environmental sustainability did occur. The operationalization for each aspect can be found in appendix B.

5.3.1 New Knowledge

The participants did acquire more knowledge before the Ov process but the Ov has increased how much they learn and how they learn it. Most of the learning that did occur was due to the interaction with others who they would not have interacted with much before the Ov. The knowledge that has been acquired so far by the participants of this study seems limited in its transformative power. As an example, what one participant had learned was the high demand for wind turbine siting. This seems unlikely to have a transformative effect on environmental sustainability. It is possible however that the interviews did not allow for in depth learning to be discussed due to the limited time. One participant learned something negative about the process. The participant observed that there is a lot more willingness to set goals than to perform the actions needed to achieve them. Summing up, while participants did learn more due to the Ov process, and this learning was due to the interaction with others, it was not all useful or positive.

5.3.2 Changed Values, Assumptions and Perceptions

The changes in values, assumptions and perceptions of environmental sustainability have changed significantly. These changes seem irrespective of the Ov process. If anything, it is likely that these changes influenced the creation of the Ov and how it was implemented. What the Ov process did influence was what participants considered a part of environmental sustainability. Their perceptions and assumptions of environmental sustainability broadened. Interviewees now include biodiversity and health for example in what they perceive relevant to environmental sustainability. Therefore, changes in the values and perception seems to have influenced the Ov instead of other way around. The Ov does seem to be influencing the values, perceptions and assumptions about environmental sustainability but to a lesser degree. This is not necessarily negative as if additional changes are not needed, or if significant changes have already occurred, more changes are not as necessary.

5.3.3 Increased Sustainability Awareness

Although one participant did express more concern about an environmental sustainability issue and noticed that this was also the case for others within the provincial government the other two participants did not express this. The relation that the participants seemed to have with environmental sustainability issues was professional rather than personal. The participants did become more aware of environmental sustainability issues especially due to real world examples. An example of this is one participant becoming more

aware of the environmental issues created by the pollution from a chicken farm and a nearby highway interacting. Another participant became aware of how challenging it is to actually implement environmental sustainability solutions as people are more willing to set goals than to implement solutions. In summation, there is more awareness about environmental sustainability issues, although the concern for environmental sustainability issues is on more of a professional level and unaffected by the Ov process.

5.3.4 Increased Feeling of Environmental Sustainability Responsibility

Similar to the previous aspect, the influence the Ov had on feelings of responsibility for environmental sustainability seemed to occur more on a professional rather than personal level. One participant explained how they feel more responsible as it is now included in their job responsibilities. All participants did feel that both at a personal level and an institutional level there has been increased responsibility, but these changes were already occurring before the Ov. What did not change is the feelings of responsibility for causing environmental sustainability. The changes that are occurring seem to be due to the structural changes that the Ov is causing, rather than interaction with others.

5.3.5 Ability to Envision a Sustainable Future

The Ov process has brought about increased collaboration in the vision creating process. This collaboration seems especially prevalent between different provincial and municipal governments and various ministries. Similar to the findings of Grootevheen (2017) and Teunissen (2016) there was not significant mentions of collaboration with citizens. It is possible however that citizen participation occurs more at the municipal level instead of the provincial level. The Ov process is bringing about significant changes, one of which is the increased collaboration and participation, so it is possible that there is a learning curve. What is already occurring is the policy writers taking a back seat and allowing others to contribute and collectively create the vision. As compared to before the Ov, it does appear that there is more of a joint vision for a sustainable future than before. Participants mention that in the goal setting and visions radical change is included but that often in practice these goals and visions have a hard time finding traction when it comes to their implementation. So at the provincial level there is a joint vision for a sustainable future but it has limited inclusion of citizens.

5.3.6 (Increased) Ability to Tackle Environmental Sustainability Challenges through Action and Dialogue

The Ov increased the collaborative dialogue on environmental sustainability issues. Individuals who otherwise would have had little interaction were brought together. There was less mention of collaborative action however this may be due to the Ov process being a vision forming process rather than the actual implementation of these visions. One participant explicitly stated that they noticed more willingness for collaborative dialogue discussing the issues than collaborative action solving the issues. Within the government however another participant found that there was more collaboration because there was less disagreement. What all participants were uncertain of however was if all of these changes were due to the Ov. What one participant stated was that the Ov just gave a place for these discussions to occur. So it seems at least during the Ov process that there is increased dialogue but that this does not always convert into increased action.

5.3.7 Transmission of Learning to other Individuals and Groups

All participants felt there was increased transmission of learning to and from individuals and groups. These changes seem to have occurred due to the Ov process and that it was organized to be more collaborative as compared to before. What seems especially critical to this transmission of learning is representatives of the various ministries and governmental organizations going to different municipalities and provinces to advise them on their Ov. Not only are these individuals able to share their expertise on health, infrastructure or other topics but they are also able to share lessons learned from other municipalities or provinces that they have visited. These transmitters of knowledge seem critical to the dispersion of knowledge on the process itself and the content of the Ov.

5.3.8 Social Learning Summary

Social learning seems to have definitely occurred due to the Ov process. Following the definition of social learning by Reed et. al. (2010), there has been a change in understanding which has become situated in larger social units and practices, and it has occurred through social interactions and processes. The Ov process brought about increased collaboration between individuals that otherwise would not have interacted, and this seems the most critical element that caused social learning to occur. However, it is difficult to determine to what degree the Ov process caused social learning as social learning seems to have already been occurring before the Ov process. The social learning seems to also occur predominantly for individuals who work within the government as little mention of citizens was made, but this may have been due to this study's focus on the provincial level. It is possible that social learning occurs for citizens as well at the municipal level Ov. The Ov process seems to be contributing to the increased consideration and integration of environmental sustainability and speeding up the rate at which this is normalized within the Netherlands.

5.4 Different Approaches to Integrating and Considering Environmental Sustainability

This section discusses the following research question:

How do different provinces approach the Omgevingsvisie process differently in their integration and consideration of environmental sustainability?

The flexibility of the Ov lends itself to different ways of achieving the goals of the Ov. This experimentation is considered a necessary aspect of transition management in the implementation phase, although it is not typically associated with the visioning phase. One province is creating an online database that will be able to show the relations between different issues and topics while another province views the vision as a set of lenses with which they can make decisions. The first approach seems more concerned with the integration while the second approach seems more focussed on the consideration. In both cases however, the changes that provincial governments are making seem significant and directly caused by the Ov. It remains to be seen how effective each approach is and if the process becomes more normalized as there is an increase in the experience with implementing the law. This will require further research in the future once the Ov has been fully implemented and has become more established.

5.5 Institutional Change

Although not originally included in the conceptual model, institutional change was a significant topic of conversation during the interviews, and therefore was added as a code a posteriori. What is of particular relevance is the relation institutional changes have with the consideration and integration of environmental sustainability and the possibilities for social learning. While each participant mentioned different institutional changes that occurred a common effect of these changes seemed to be bringing individuals together who normally would not have interacted. This seemed particularly effective in bringing about increased consideration and especially integration of environmental sustainability and allowed for social learning to occur. These institutional changes could create a positive feedback loop where institutional changes lead to social learning which causes more institutional changes to occur. What will need to be closely observed in the years to come is if these changes also result in increased action on environmental sustainability issues.

5.6 Conclusion

In conclusion the Ov process seems to be positively influencing the integration and consideration of environmental sustainability through social learning. It is difficult to discern to what degree this is due to the Ov process and what would have occurred without the Ov. The critiques of the Ov remain relevant in future steps however. The flexibility might result in outcomes that are the opposite of the goals of the Ov (Korthals Altes, 2016; de Graaf, Platjouw & Tolsma, 2018; Foort & Kevelam, 2015), there are potential ensuring its support because its long term nature without potentially including short term benefits, and the difficulty in passing policies ensuring environmental sustainability (Kern & Smith, 2008). While improvements can be made to the Ov process, the results of this study indicate that the real challenge will be in the implementation of the visions. The Ov process does seem to increase the consideration and integration of environmental sustainability and includes social learning which will likely have a positive influence on the eventual implementation stage. The societal context will also be critical in the success of the Ov. As one participant mentioned, they have noticed an increase in consideration for environmental sustainability issues in the last number of years as economic issues became less pressing in the Netherlands. There is no reason why this could not reverse and an increase economic issues causes less consideration for environmental sustainability.

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Appendices

Appendix A: Schapke et. al. (2017) framework operationalization

The following is the original framework developed by Schöpke et al (2017) upon which the framework for this study was heavily based.

Table 1. Summary of review and conceptual overview of impacts. The first three columns show how the effects are conceptualized in the literature and how they are assumed to contribute to sustainability. The numbers indicate aspects that are used in the framework. Numbers correspond to Figure 2. Aspects used in the fourth column are used as critical reflexive questions. References correspond to the literature reviewed (Sections 2.1 and 2.2.1–2.2.3). Arrows indicate potential interlinkages and synergies between the aspects of different societal effects, e.g., →sl 7 = is linked to aspect 7 of social capital. Abbreviations: sl = social learning, em = empowerment, sc = social capital.

Impact	Description (Subject and Object of Impact)	Potential Contributions to Sustainability (Result of Impact)	Adverse Effects (Critique)
Social learning	<p>Social learning comprises processes of individual and collective experimentation, reflection and innovation [22,32], which lead to lasting changes in the interpretive frames (such as belief systems, cognitive frameworks, etc.) guiding the actions of a person [63]. In detail, it can include:</p> <p>(1) (a) First- (new knowledge, skills) and (b) second-order learning (changes in values and assumptions) [43,46,53] cf. [14,15].</p> <p>(2) Transmission of individual learnings to wider social groups at small or larger scales [15,53].</p>	<p>(3) Raising awareness on sustainability-related problems [56,58,69,70]; (→em 6)</p> <p>(4) Increasing the feeling of responsibility and capacity of people to react to these sustainability problems [54–56,58,69], e.g., by overcoming unsustainable lock-in situations [31]; (→em 6,7)</p> <p>(5) Allowing for the development of joint visions in direction of sustainability [32,34];</p> <p>(6) Allowing for the development of collective action in direction of sustainability [29,67,68] (→sc 7);</p> <p>(7) Spreading of (sustainability) insights from individuals and groups to wider groups is possible [15,22,24] (→em 9, sc 4).</p>	<p>A focus on consensus building, shared goals and trust/respect to foster social learning may limit the space for radical change (towards sustainability) [108]</p>
Empowerment	<p>Empowerment refers to:</p> <p>(1) Increases in intrinsic motivations via choice, impact, meaningfulness and competence [49,74,81],</p> <p>(2) Increases in decision-making capacities [82,83],</p> <p>(3) Gains in control over resources and possibilities [73,75,76,79],</p> <p>(4) (Beneficial) changes in the overall position of individuals and groups within the system [76],</p> <p>(5) Development of new resources [73,75,78].</p>	<p>(6) When process of (psychological) empowerment are linked to increases in awareness and motivation on/for sustainability (→sl 3,4)) [69];</p> <p>(7) If psychological empowerment raises capacity to react to sustainability problems (→sl 4)) [13,69],</p> <p>(8) Giving sustainability interests more decision-making power;</p> <p>(9) Contributing to changing structures, if new structures are more sustainable, e.g., sustainable niches become mainstream (transformative power) [40,49,73,109], e.g., when frontrunners trend set sustainable alternatives [23,24,85,86]. (→sl 3,4,7, sc 7).</p> <p>(10) Contributing to the development of new, more sustainable resources (innovative power) [73] (→sc 6).</p>	<p>Empowerment paradox: the attempt to empower somebody establishes a dependency relationship and therefore may ultimately be disempowering [49]</p>
Social capital	<p>Social capital structurally refers to relationships between individuals, groups and networks [87,96]. Two dimensions can be distinguished [97]:</p> <p>(1) Bonding amongst people in a group</p> <p>(2) Bridging to people outside a group.</p> <p>Relationships have a quantitative (e.g., number of contacts) and a qualitative side (trust, common rules and values as well as norms of reciprocity) [45,87,90,94,95].</p>	<p>(3) Building and maintaining strong ties within a group (e.g., via trust, shared rules and values) is contributing to a strong local community, which can be considered one of the social aspects of sustainability [89,98–101,105,106]</p> <p>(4) Group remaining flexible and inclusive; openness towards other groups or across groups, networking (bridging) [22] (→sl 7, em 9);</p> <p>(5) Supporting to develop and sustain community initiatives [107] (sl6, em 10);</p> <p>(6) Increasing the capacity of the community for (sustainability) innovations (→em 10) [97];</p> <p>(7) Positively relating to collective action for sustainability (→sl 6, em 9) [48,51,88,90,92,100]</p>	<p>Strong increase of social capital within a group may create exclusion tendencies towards “outsiders” [101], hamper innovation [102] and obscure power relationships [91,103].</p>

Appendix B: Conceptual Framework Operationalization

The following operationalization was used to analyze the interviews.

Integration

1. Increased integration of environmental sustainability into decision making,
Participants report increased integration of environmental sustainability into decision making.

Consideration

1. Increased consideration for environmental sustainability in decision making.
Participants report increased consideration given to environmental sustainability in decision making.

Social Learning

1. New knowledge
Participants report to have acquired new knowledge, insights, etc. about environmental sustainability.
2. Changed values, assumptions and perceptions
Participants report changes of values, assumptions and perceptions about environmental sustainability.
3. Increased sustainability awareness
Participants express increased concern about/awareness of sustainability problems.
4. Increased feeling of environmental sustainability responsibility
Participants report themselves to be (increasingly) responsible for causing and/or solving sustainability problems.
5. Ability to envision a sustainable future
Participants report jointly developing a vision of a sustainable future (including radical change).
6. (Increased) ability to tackle environmental sustainability challenges through action and dialogue.
Participants report increased collaborative action and dialogue on sustainability challenges.
7. Transmission of learning to other individuals and groups
Participants report that there has been a spreading of (sustainability) insights from individuals to further group members and beyond and that they have learned from one another about environmental sustainability.

Institutional Change

Changes in practices or approach

Participants report changes in practices or the approach to environmental sustainability

Appendix C: Interview Guide

Participants were first read the introduction and then the interview proceeded with the main questions. Clarifying and additional questions were asked based on the responses of the interviewees. Each question has in brackets what aspect of the conceptual framework it is relevant to.

Introduction

Thank you for agreeing to be interviewed. I am researching what influence the omgevingsvisie process has on participants, in particular if it influences the integration and consideration of environmental sustainability issues. I define sustainability as meeting the needs of the present without compromising the needs of future generations. The interview will take around 30 minutes. Your participation is entirely optional, and if at any point you wish to no longer participate all you need to do is let me know. To complete my research, I need to record the interview. I will be the only one with access to the recording. All data collected will remain strictly confidential.

Do you have any questions?

Do you consent to participating?

Main Questions

What do you think the goal of the omgevingswet is?

-and the omgevingsvisie?

Did you learn anything new about environmental sustainability? (SL1)

-knowledge

-insights

Has your awareness of or concern for environmental sustainability issues increased? (SL3)

-do you feel more responsible? (SL4)

-do you feel an increased need to do something about environmental sustainability issues?
(SL4)

Has your conception of environmental sustainability changed? (SL2)

-different assumptions?

-different values?

Has the way the province/city integrates and considers sustainability issues into planning changed? (consideration, integration)

-what is different?

Do you feel there is a joint vision of a sustainable future? (SL5)

-was the process collaborative? (SL5, SL6)

-did you feel you had adequate dialogue with the other participants? (SL6)

Did you learn from others during the process? (SL7)

-did others learn from you during the process?