Impact Assessment and infrastructure projects in the Netherlands: lacking a social aspect?

An exploratory study on the role of Social Impact Assessment in Dutch infrastructure project management

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Preface

In front of you lies my master's thesis 'Impact Assessment and infrastructure projects in the Netherlands: lacking a social aspect?'. This study is my final achievement as a geography student. It's the final destination of an intellectual journey that led me through different cities and by many inspiring people. Over the last seven years, I've had the privilege to develop my intellectual and social skills with the help of inspiring professors and fellow students. However, where one journey ends, another begins. I'll soon be leaving the student life behind me, but only to enter a new world of possibilities and opportunities. A world where I can finally practice the knowledge I absorbed over the years. However, before I begin this new adventure, I'd first like to show my appreciation and thankfulness to the people that have always supported me during my years of study. First, I'd like to thank Mr. Vanclay, who supervised me during the writing of this master's thesis. Furthermore, my special thanks goes out to Mr. J. Arts, Mr. D. Hamers, Mr. N. Sorel, Mr. R. Kuiper, Mr. S. Wouda, Mr. K. Hansma and Mr. Z. Budé; for being the enthusiastic men that participated in my interviews. Also, I'd like to thank my girlfriend for always being my biggest support and source of inspiration. Finally, thanks to my mom and dad, brothers and friends, for always believing in me.

Happy reading!

Marijn Termorshuizen   Groningen, July 2014

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Abstract

The Netherlands is a densely populated country, where seventeen million people live within 42,000 square kilometers, and so a well-organized infrastructure network is essential. For the most part, the management (construction and adjustment) of this network is controlled by the Dutch central government. Despite its importance, the construction and/or adjustment of infrastructure can have severe consequences for both the physical and social environment. Ideally, an impact assessment study is conducted to analyze, monitor and manage these impacts. In the Netherlands, an Environmental Impact Assessment (EIA) has been used in project planning since 1985, whereas its social counterpart, Social Impact Assessment (SIA), has surprisingly never been officially introduced.

The absence of a formal SIA in Dutch legislation could mean that social impacts of infrastructure projects are either addressed through different routes or entirely ignored by the Dutch government. Until this thesis, however, the role of SIA in the Netherlands has not been extensively examined. In this study, the researcher explores the role of SIA in Dutch infrastructure project management and investigates how the Dutch government currently manages social impacts of infrastructure projects. By determining the role that SIA plays in infrastructure project management procedures, and comparing it with the government's current tools for managing social issues, the researcher hopes to determine the usefulness of incorporating SIA into Dutch infrastructure project management.

The central question for this study is: *To what extent does SIA play a role in Dutch infrastructure project management?*

To answer this central question, the following sub-questions are drawn:
1. What laws and regulations are practiced by the Dutch government regarding infrastructure projects in the Netherlands?
2. How does the Dutch government manage social impacts of infrastructure projects?
3. To what extent do the Dutch laws and regulations, and the Dutch government's management of social impacts of infrastructure projects, fit into the SIA framework?

After a brief introduction and history of Social Impact Assessment (Chapter 2), a desktop review was used to analyze Dutch legislation and policy related to infrastructure projects and impact assessment (Chapter 3). In addition, seven government officials were interviewed in order to gain insight in the practical translation of the legislation (Chapter 4). Chapter 5 analyzes the findings from the Chapters 3 and 4. Forming the core of this thesis, it provides a commentary of how current Dutch infrastructure project legislation and impact assessment activities fit into the SIA framework. This analysis led to the following conclusions about the role of SIA in Dutch infrastructure project management (Chapter 6):

- SIA is not used by the Dutch government, and does therefore not play a direct role in Dutch infrastructure project management. However, aspects of SIA are used in Dutch impact assessment methods.

- Social aspects are not the main focus of Dutch impact assessment activities during infrastructure projects.
- Analysis, monitoring, and management of social impacts in the Netherlands are neither labeled as, nor organized in, an SIA. These three activities are not part of one single impact assessment study, but are instead scattered over three impact assessment tools: Environmental Impact Assessment (EIA), Social Cost-Benefit Analysis (SCBA) and Informal Public Participation. For assessing social impacts, these tools have the following shortcomings in comparison to SIA:
  1. Although most accurate in assessing social impacts, EIA usually includes only a select range of social impacts.
  2. Although SCBA addresses many social impacts, the method can hardly be seen as a substitute for SIA. Its focus is misplaced on national scale impacts and quantifiable impacts.
  3. Informal Public Participation (IPP), although a potentially effective method to address social impacts, is not mandatory, and IPP proceedings are left to the discretion of project developers. If IPP is not used, an important social impact assessment tool is left out.

Thus, SIA plays a relatively modest role in Dutch infrastructure project management. Recommendations for improving Dutch planning and impact assessment are detailed in Chapter 6. First, stricter guidelines and rules should govern informal public participation (IPP) to decrease the autonomy of project developers. Second, IPP activities should be extended to the project's post-implementation phase, so that social impacts of the project can continue to be evaluated. Third, EIA activities should also be extended to the post implementation phase. Although the Infrastructure Act prescribes that a follow-up test (evaluation of impacts) should be conducted after project implementation, in practice this rarely happens. Consequently, valuable information concerning efficiency of mitigation measures is not collected. Fourth, the Social Cost Benefit Analysis (SCBA) should be reconsidered and improved. In its current form, with its focus on quantifiable and national scale impacts, the SCBA is not a preferred method for assessing social impacts. Fifth, the difference between environmental and social impacts should be more clearly demarcated in Dutch legislation. Currently, impacts on people are not signified as "social impacts," but are rather included under "environmental impacts." By using the label "social impacts," government officials should further recognize the importance of the human factor in impact assessment. Sixth, and related to the previous recommendation, government officials should be made more aware of the importance of social impacts.

1 Introduction

1.1 Background

In the Netherlands, infrastructure projects can have a range of impacts. Where impacts on the environment are usually high on the agenda of decision makers, the consequences for people's daily lives are comparatively ignored. Though environmental impacts may be easier to observe and measure than social impacts, the ability to address and manage social issues can crucially influence the success or failure of a project. An excellent example of clear miscalculation and underestimation of social impacts is the construction of highway A27 near Utrecht (Coenen et al., 2001). Though the first project date back to the early 1970's, construction wasn't completed until 1986. The extreme delay was caused by strong resistance from citizens and environmentalists who opposed the highway's planned route through the Amelisweerd estate (Struiksma & Tillema, 2009). Although this estate was not of great ecological importance, it represented a strong symbolic meaning to the citizens of Utrecht (Arts, Personal Communication, 13 February, 2014). The local community was unaware of the construction plans until a young engineer accidently discovered them. Upon discovery, the people were outraged by the lack of transparency and strongly opposed the project. Ultimately, the city council changed the highway's route to avoid Amelisweerd, but the frustrated and disrespected community rejected the new plan and challenged it in an appeal to the Council of State. The government ignored the protests and slowly started construction. In 1981, activists started to occupy the area, which significantly slowed down the decision making process. Ultimately, the House of Representatives voted in favor of the project. While activists were still occupying the estate, trees were cut down and special police forces cleared the area. In 1986, after fifteen years of struggle, the highway was finally constructed (Utrecht Anders, 2014).

The above example illustrates the importance of good communication between a government and a local community during a planned intervention. In the case of the construction of Highway A27, the government paid a high price for withholding information from local citizens and environmental organizations. Had they involved and informed the people at an early stage of the project, the problems and costs may have been considerably lower, and the long-term project outcome may have been better for all parties involved.

A possible solution for conflicts between project managers and communities is the Social Impact Assessment (SIA). Developed in the United States in the early 1970's, as a follow-up to the formal requirements of the National Environmental Policy Act (NEPA), SIA is aimed at the processes of managing the social issues associated with planned interventions (plans, projects, policies, programs) (Esteves et al., 2012). Or, as Vanclay (2003, p.5) defines it: "SIA is analyzing, monitoring and managing the intended and unintended social consequences, both positive and negative, of development. Its primary aim is to create a more sustainable and equitable human and biophysical environment." It can be considered a field of both research and practice, which consists of a body of knowledge, values and techniques (Vanclay, 2003). It cuts across a wide range of disciplines, including anthropology, gender studies, sociology, cultural geography, economics, development studies, political science and human rights, community psychology, among others (Esteves et al., 2012). There is a community of SIA

professionals that undertake social and environmental research to inform and assist in the practice of SIA (Vanclay, 2003).

SIA requires a constant interaction between research and practice: SIA practitioners gain knowledge on a wide social and environmental scale and use this knowledge to foster sustainable development (Esteves et al., 2012). Generally, SIA practitioners work together with communities that are, in one way or the other, affected by a project/planned intervention, to accomplish better development outcomes for those communities (Esteves et al., 2012). Most empirical SIA research has focused on specific construction projects, especially large-scale energy development projects in rural areas (Freudenberg, 1986). However, SIA can also be useful in policy interventions, including the recently introduced health care program in the USA. To minimize negative social consequences, SIA practitioners cooperate with private sector companies and development agencies to design projects and policies that are acceptable for all parties involved. They continue to work with regulatory agencies for ongoing project monitoring for the development approval process (Esteves et al., 2012).

However, although frequently used in countries like Australia, New Zealand, Canada, and the United States, SIA is still in its infancy in most European countries. Legislation in many European countries has traditionally favored environmental impacts over social impacts (Esteves et al., 2012). Despite European directives regarding SIA, and the implementation of an integrative SIA system for EU member states in 2003, there still seems to be no structural use of SIA in managing social issues related to infrastructure projects (TEP & CEPS, 2010a).

Focusing specifically on infrastructure projects in the Netherlands, this thesis examines causes and effects of the seemingly ignorant attitude that the Dutch government has towards SIA (TEP & CEPS, 2010a). By exploring this topic, the researcher hopes to gain a better view on how the Dutch government manages social impacts of infrastructure projects and to what extent SIA plays a role in this. In doing so, the researcher strives to determine if Dutch project management would benefit from incorporating SIA into their practice or if the needs of the people are successfully fulfilled without a formal SIA.

1.2 Research questions
Based on Section 1.1, the following central question is drawn:

To what extent does SIA play a role in Dutch infrastructure project management?

This central question is subdivided into the following sub-questions:
1. What laws and regulations are practiced by the Dutch government regarding infrastructure projects in the Netherlands?
2. How does the Dutch government manage social impacts of infrastructure projects?
3. To what extent do the Dutch laws and regulations, and the Dutch government's management of social impacts of infrastructure projects, fit into the SIA framework?

These three sub-questions will guide this research and should contribute to the achievement of the research objective (Section 1.3). The answer to the first sub-question will provide an overview of the laws and regulations that currently structure policy and decision-making regarding infrastructure projects in the Netherlands. The answer to the second sub-question will present ways in which the Dutch government currently manages social consequences of infrastructure projects. The answer to the third and final sub-question will show to what extent current Dutch policy and impact management, fit in the SIA framework. With the SIA framework the researcher refers to the objectives, activities, core values and principles of SIA as described in Chapter 2 of this thesis.

1.3 Objective
Following from the central question, the objective for this research is:

To explore to what extent SIA plays a role in the Dutch government's infrastructure project management, by analyzing legislation and impact assessment activities regarding infrastructure projects.

The objective contains a few concepts that require further explanation:
- *Social Impact Assessment:* ''The process of analyzing (predicting, evaluating, reflecting), monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment'' (Vanclay, 2003, p.5).
- *Dutch government:* This concept refers to the national Dutch government.
- *Infrastructure projects:* Projects that encompass the construction or adjustment of roads, waterways, railways, train stations, airports, or ports.
- *Infrastructure project management:* All activities and decision making involved in the planning, design, implementation, and evaluation of infrastructure projects.
- *Impact assessment activities:* Activities aimed at analyzing (predicting, evaluating, reflecting), monitoring, and managing impacts of development.

Societal relevance
The knowledge provided by this study may potentially contribute to an increased awareness from Dutch government officials and project developers of the usefulness of SIA as a tool for managing social issues related to infrastructure projects. This is important for several reasons. First, it could save the Dutch government a substantial amount of money that is currently spent on delayed decision making and lawsuits filed by affected citizens. Second, it could improve the bond of trust between the government and its citizens. A trusting relationship might ensure a more favorable attitude of citizens towards infrastructure projects in the future. Finally, it might contribute to more sustainable development processes and outcomes in the Netherlands.

Scientific relevance
The insights provided by this study can hopefully fill the knowledge gap that currently exists with regard to the practice of SIA in the Netherlands. Exploring how the Netherlands manages social impacts of

infrastructure projects, might lead to new insights for the SIA field, including alternative ways of managing social concerns.

1.4 Method

To fulfill the aim of this research, a desktop review was chosen as the predominant research strategy. A desktop review refers to collecting information on a topic that has been published or exists in public documents. This information can be obtained from libraries, websites, the government, NGO's, newspapers etc. In a desktop review, the information obtained by the researcher has been produced by others. The information can be gathered from literature, secondary data, or official statistical material (Verschuren & Doorewaard, 2007). For this study, the researcher has primarily used official statistical material including policy documents and legislative documents, both provided by the Dutch government. A range of scientific articles on Social Impact Assessment and spatial planning were also used.

An important advantage of using a desktop review for data collection is that the researcher has fast access to large amounts of data. However, an important disadvantage is that the researcher is entirely dependent on the work of others (Verschuren & Doorewaard, 2007). This work is often intended for other purposes and therefore doesn't entirely serve the researcher's interest. This may imply that the researcher is forced to adjust his research design according to the available data during the research. Another disadvantage of a desktop review is that the researcher has no direct contact with the research object(s). This is especially important if these objects are people. The researcher is not able to collect non-verbal information or to trace discrepancies in the information (Verschuren & Doorewaard, 2007).

To overcome the limitations of the desktop review in this study, the researcher also relied on another data collection method: in-depth interviewing. Personal opinions and experiences collected from several key informants complemented the data conducted via desktop review. The interviews also allowed the researcher to gather information on specific topics that were insufficiently evaluated in the literature and official statistical material. Furthermore, the interviews at least partly negated the problem of the missing non-verbal information.

This study focuses on two main topics: (1) Social Impact Assessment and (2) the Dutch way of managing social impacts of infrastructure projects. By first analyzing both legislation and policy practice regarding impact assessment in the Netherlands, and then comparing this analysis with the SIA framework, the researcher hopes to discover to what extent SIA plays a role in the Dutch government's infrastructure project management. Both the analysis of the Dutch legislation and the description of the SIA framework are based on literature study. The analysis of the policy practice examines information gathered from in-depth interviews with government-officials, whose descriptions were later complemented by literature study.

1.5 Outline of thesis

This thesis consists of six chapters. After this introductory Chapter 1, the next chapter (2) focuses on Social Impact Assessment (SIA). A broad description of SIA is provided, including a brief history; a description of the objectives, activities, core values, and principles of the SIA process; a conceptualization of social impacts; and a description of the current strengths and weaknesses of SIA. Chapter 3 presents a description of the current Dutch laws and regulations regarding infrastructure projects. It gives an overview of the laws and rules that currently structure (foster or restrict) these projects. Chapter 4 provides a description of how the Dutch government currently manages social impacts of infrastructure projects. The chapter is mostly based on the practical experience and expert knowledge of government officials with regard to impact assessment and infrastructure projects. It provides an insight into to what extent social impacts are considered and managed, both prior, during and after infrastructure projects. Chapter 5 analyzes the findings from the Chapters 3 and 4. The chapter provides a commentary of how current Dutch infrastructure project regulations and social impact management fit into the SIA framework. The analysis is performed based on the SIA framework as described in Chapter 2. The final Chapter 6 consists of three sections: conclusion, recommendations, and reflection. In the conclusion section, the sub-questions and central question are answered. The recommendation section presents ideas and points of discussion based on the research findings of the previous chapters. In the reflection section, the researcher reflects on the research process and his own actions.

2 Social Impact Assessment

This chapter provides a broad description of Social Impact Assessment. Section 2.1 consists of a brief history of SIA. It describes how SIA has evolved over recent decades and the difficulties it has faced along the way. Section 2.2 contains a general description of the SIA concept, including commonly used definitions, objectives and activities, and core values'. Section 2.3 provides a description of what social impacts are and the difficulties in defining them. Section 2.4 describes the strengths and weaknesses of SIA.

2.1 Brief history

The rise of SIA began in the United States in the early 1970's, as a response to the formal requirements of the National Environmental Policy Act (NEPA). This landmark act required federal agencies to prepare an Environmental Impact Statement (EIS) before project implementation to address any adverse effects on the natural or human environment (Burdge & Robertson, 1990). Though NEPA primarily addressed environmental concerns, policy makers soon realized that changes to the natural ecosystem could also lead to changes in the culture and daily lives of the people. Tensions between Native Americans and oil companies in the United States illustrated this concept. Oil companies, operating without input from the tribes, caused environmental degradation in regions of great cultural and spiritual significance to Native Americans.

Because of examples like these, where environmental change caused impacts on human populations, the term 'social impact assessment' was first introduced in 1973 (Burdge, 2002)., The new field of SIA developed out of the need to predict social effects of environmental changes caused by development projects falling under NEPA legislation (Burdge & Vanclay, 1996). In the beginning, SIA was merely used to calculate social impacts as part of an environmental impact assessment (EIA) (Esteves et al., 2012). Most of the early SIA procedures were carried out by social scientists from different departments within federal, state, or provincial governments, or by consultants hired by the engineering and architectural firms responsible for the EIA's. Although those early SIA practitioners incorporated social sciences to assess social impacts, they still worked from a predominantly environmental viewpoint. They lacked a clear theoretical SIA framework and most of the concepts used by the practitioners had little connection to community and cultural change (Burdge & Vanclay, 1996). However, in the following years, more and more government agencies acknowledged the need for SIA and started to include social aspects in their impact assessment procedures. The full integration of SIA into these procedures, however, was not widely favored (Burdge & Robertson, 1990).

SIA was not largely accepted and acknowledged stand-alone process until publication of the *Guidelines and principles for social impact assessment* paper. This paper, published by the United States Inter-Organizational Committee on Guidelines and Principles for Social Impact Assessment in 1994, was a milestone because it was the first paper to detail the main procedures for an American-based SIA. Following publication, demand for an international SIA procedure grew, and a task force was established in 1997 to develop international guidelines and principles for SIA. The task force soon discovered that

without USA-specific regulations, there was a wider purpose for SIA in the international context. According to the task force, this international SIA must accommodate multiple regulations (different levels), be a mechanism that could also be effective without any regulation, and be able to improve the outcomes of development projects (Vanclay, 2003).

Nowadays, SIA is widely recognized and practiced on an international scale as a predictive study part of the regulatory approval process for infrastructure and resource extraction projects (Esteves et al., 2012, p.37). However, SIA is relevant not only before a planned intervention, but also during and after the intervention through management and monitoring. By maintaining involvement at all stages of the project, SIA practitioners readily respond to a range of potential social impacts (Esteves et al., 2012). By using SIA as an ongoing management process, the SIA practitioners can keep a close watch on the developments within a community and between stakeholders, and they are able to address social issues and risks between different parties as soon as they occur. Stakeholder-related risks in particular are considered to be significant influences on the success, costs, and timeline of projects (Esteves et al., 2012).

The new and improved way of practicing SIA has been positively received by many companies and organizations and its benefits are now widely recognized. Important benefits include greater certainty for project investments and more chance of project success; improved ability to address problems in an early stage, and therefore to reduce costs and to include unavoidable costs into feasibility assessments and project planning; improved ability to reduce and avoid social and environmental risks faced by communities and industry and conflicts between the two; opportunity for companies and organizations to increase their competitive advantage and to create a positive business image through corporative social responsibility; improved ability for project proponents to inform and involve both internal and external stakeholders and to work together on futures that are beneficial for all parties involved; improved attraction and retention of skilled workers (Esteves et al., 2012, p.37).

Another positive development in SIA history is the emergence of the International Finance Corporation's Performance Standards (Esteves et al., 2012, p.37). Established in 2006 and revised in 2012, these standards require the preparation of environmental and social action plans for all projects. These social action plans should contain the findings of the impact assessment; description of mitigation measures and ideas for community development; information about the timing, frequency, duration and cost of management measures; and monitor and report procedures (Esteves et al., 2012, p.37). Currently, SIA procedures are frequently used in an array of projects, plans, programs, and policies, ranging from natural resource extraction projects to disaster preparation to peace building initiatives (Esteves et al., 2012, p.37).

2.2 SIA: What, why and how?

Definitions

Until quite recently, there was no single, universally accepted definition for SIA (Vanclay, 2003). Due to the concept's evolution during recent decades, it has been described in different ways by different authors in different time periods. In the 1980's SIA was described by Freudenberg (1986) as 'the appraisal of a wide range of impacts that are likely to be experienced by an equally wide range of social groups as a result of some course of action'. Considering this definition, it should be noted first that 'some course of action' in the case of SIA must be understood as a planned intervention, which could refer to some sort of project, plan, policy or program. For the purpose of this thesis however, a planned intervention is merely understood as a (spatial) project, which could refer to large construction projects, resource development projects, infrastructure projects etc. (Burdge, 1987). Another definition, and a bit more specific perhaps, was formulated by Bowles (1981 cited in Burdge, 1987, p.141) and Burdge (1985 cited in Burdge, 1987, p.141). They understood SIA as ''the systematic advanced assessment of the impacts on the day-to-day quality of life of persons and communities when the environment is affected by development or policy change''. In the 1990's the Interorganizational Committee on Guidelines and Principles for SIA (1994 cited in Burdge, 2003, p.85) expanded the definition to include 'all social and cultural consequences to human populations of any public or private actions that change people's ways of life'. With cultural consequences the Committee referred to changes to the norms, values and beliefs of individuals that shape the cognition of themselves and their society (Burdge, 2002). Because the Committee's definition was merely USA-focused, Burdge & Vanclay (1995 cited in Vanclay, 2002, p.190) modified it to be more internationally applicable. The full, modified definition, was (Burdge & Vanclay, 1995, cited in Vanclay 2002, p.190):

> *'SIA is the process of assessing or estimating, in advance, the social consequences that are likely to follow from specific policy actions or project development, particularly in the context of appropriate national, state or provincial environmental policy legislation. Social impacts include all social and cultural consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society.'*

However, a few years later, the definition was considered to be incomplete. According to Vanclay (2002), SIA needed to be a process in which participation and social analysis should be incorporated in all process phases (including project design, planning, and implementation), and that therefore ensures acceptable, equitable and sustainable development. He (2002) argued that SIA is much more than just a technique, but rather a philosophy about development and democracy. Just so, it considers both impacts and goals and processes of development (Vanclay, 2002). Consequently, Vanclay (2002, p.190) formulated the following definition for SIA:

> *'SIA is the process of analyzing (predicting, evaluating and reflecting), monitoring and managing the intended and unintended consequences on the human environment of planned interventions and any social change processes invoked by those interventions, so as to bring about a more sustainable and equitable biophysical and human environment.'*

In the context of scientific research, SIA can be considered a sub-field of the integrated social sciences (anthropology, gender studies, sociology, cultural geography, among others). It develops a knowledge base that allows SIA practitioners to assess the impacts on the quality of life of individuals and communities whose environment is affected by a proposed policy, plan, program or project (Burdge, 2003).

Considering these different definitions, it is clear that SIA is both a field of practice and a field of research, which complement one another (Esteves et al., 2012). The practical side of SIA is reflected in the process of assisting communities and project proponents (governmental organizations / private companies) in achieving sustainable development. The scientific side of SIA on the other hand, provides the knowledge and information required by SIA practitioners to do their job properly.

Objectives and Activities

The key objective for SIA is to ensure that the benefits of development are maximized and that the costs, both the social costs and the monetary costs, are minimized. This implies that SIA is not just about identifying the negative or unintended outcomes of development projects, but also about achieving better, more sustainable, development outcomes. In other words, instead of just predicting and preventing negative impacts of development projects, SIA aims to increase the positive impacts of these projects (Vanclay, 2003). Furthermore, SIA is meant to create a more ecologically, socio-culturally and economically sustainable and reasonable environment. In order to do so, SIA promotes community development and empowerment by making use of participatory processes, trust building, and the development of social networks. By assisting communities in identifying their needs and future aspirations, SIA tries to maximize the positive outcomes of development and to minimize the negative outcomes (Vanclay, 2003).

To achieve the SIA objective, SIA practitioners ideally follow a four-phase process (Esteves & Vanclay, 2009). Each phase consists of several activities (Vanclay, 2003, 2012; Esteves et al., 2012):

Phase 1: Identifying and understanding the issues associated with the project:
- identifying and bringing together stakeholders and interested and affected peoples, and creating participatory processes in which they can discuss their desired futures and the acceptability of likely negative and positive impacts, so that they can come to an acceptable agreement with the project proponent(s);
- documenting and analyzing the local historical setting of the planned project, in order to gain a good understanding of the local communities and stakeholders and how they are likely to be affected by the proposed project and to be able to anticipate on responses to the project, and to assess possible cumulative impacts;
- providing an extensive picture of the local cultural context, and developing an understanding of the local needs and aspirations, and how they relate to the planned project.

Phase 2: Projection / prediction of likely impacts of development projects that are to be implemented:
- identifying and describing the activities that are likely to cause impacts (scoping);
- collecting baseline data (social profiling) for the area where the project is planned, in order to be able to compare the situations before and after the planned intervention;
- predicting likely impacts and the likely response of different stakeholders on those impacts.

Phase 3: Development of mitigation strategies in order to minimize potential or unexpected social impacts:
- assisting the stakeholders in evaluating and selecting alternatives for the project;
- assisting in site selection for the project;
- recommending mitigation measures to minimize negative impacts of the project and maximize positive impacts;
- assisting in the valuation process and providing suggestions about compensation for affected people;

Phase 4: Development of monitoring programs to identify unanticipated social impacts that may develop as a result of social change:
- describing potential (post implementation) conflicts between stakeholders and advising on solutions for these conflicts;
- developing strategies for coping with non-mitigatable impacts;
- contributing to skill development and capacity building in the community (applies for all phases);
- Assisting in inventing and implementing a monitoring plan to track implementation, unexpected social changes, and deviations of mitigation measures;
- advising on appropriate institutional and coordination arrangements for all parties.

When we take the above mentioned activities into consideration, it's clear that, to achieve better development outcomes, SIA practitioners first need to identify and understand the consequences of change for stakeholders and communities, in order to make them aware of, and better prepare them for, the social impacts likely to occur (Burdge, 1987). It should be mentioned however that SIA practitioners not only cooperate with the people that are likely to be affected by a certain development project, but also with the initiators of the development projects, like for example governments and private-sector organizations. By helping those organizations understand the possible social consequences of their proposed projects, they should be able to better anticipate on these consequences in an early stadium of the decision making process. Furthermore, SIA practitioners also assist the different parties in identifying alternatives for the proposed project, and determining the impacts of these alternatives (Burdge, 2003). However, besides just assisting in these processes, SIA practitioners aim to teach both project-opponents and -proponents how to cope with these kind of issues on their own in the future. So, as stated by Rickson et al. (1990), being a rational tool for improving the quality and sustainability of decision making by communities, government organizations and private-sector organizations; SIA is fundamental in the process of development.

Core values and principles

During the process of assessing social impacts, SIA practitioners operate on the basis of clear values and principles. The core values for SIA are generally accepted and strongly held fundamental statements of belief, and represent the ideas and ideals that underlie SIA. Basically, the core values for SIA can be described as follows (Vanclay, 2003, p.9):

SIA practitioners believe that:
1. There are fundamental human rights that are shared equally across cultures, with no difference between men and women.
2. Everyone has the right to protection of those fundamental human rights by the rule of law, with justice applied equally and fairly to all, and available to all.
3. People have a right to live their daily lives in a safe and healthy environment which provides a good quality of life and enables the development of human and social potential.
4. Social dimensions of the environment – specifically peace, freedom from fear, belongingness, and the quality of social relationships – are important aspects of people's health and quality of life.
5. People have the right to be involved in the decision making about planned interventions that (potentially) affect their daily lives and future.
6. The knowledge and experience of locals is valuable and can be used to improve planned interventions.

In addition to the core values, the SIA community of practice handles a range of principles with regard to development. These principles serve as a common understanding among SIA practitioners as to what ought to be done in certain situations during the SIA process. The fundamental principles for development are (Vanclay, 2003, p.9):

SIA practitioners consider that:
1. Respect for human rights should be the basis for all actions.
2. The main stimulator for development planning should be the fostering of equity and democratization, and impacts on the worst-off members of society should be considered at all times in all assessments.
3. Diversity between cultures and within cultures, as well as the diversity of stakeholder interests need to be recognized and valued.
4. Decision makers should be imputable for their decisions, and their decisions should be just, fair and transparent.
5. There should be broad-based acceptance about the development projects among the members of those communities that are likely to benefit from, or be affected by, the project.
6. The experts' views and opinions should not be the only consideration in decisions with regard to planned interventions.
7. Positive outcomes, such as empowerment, capacity building, and the realization of human and social capital, should be the most important focus of all development.
8. A broad definition of the term, 'the environment', is essential, and it should include social and human dimensions. It's important that care is taken to ensure that adequate attention is given to the social aspects of the environment.

These core values and principles should be seen a guide for SIA practitioners in fostering sustainable development and creating positive development outcomes.

2.3 Social impacts

To assess social impacts, and in order to be able to stimulate positive impacts and provoke negative impacts, it is essential to be aware of what social impacts actually are. However, there exists no such thing as a universal checklist of social impacts. In fact, social impacts are always context specific, and will vary from project to project and from place to place (Vanclay, 2002). Furthermore, the weight assigned to specific social impacts will vary between different communities and between different groups within a given community. Hence, social impacts should ideally be derived from interaction with a community and stakeholders (scoping) (Vanclay, 2002). Using a checklist might invoke a certain laziness among SIA practitioners, especially among those with little training in the social sciences. That is, instead of undertaking an extensive scoping process to identify potential social impacts, they might just use the checklist (Vanclay, 2002). Furthermore, using a checklist would imply that only the expert opinion is considered and that local knowledge is ignored (Vanclay, 2002).

Over the years, many different lists have been developed, all containing more or less different social impacts (Vanclay, 2002). However, according to Vanclay (2002), many of those lists do not contain actual social impacts, but rather the social change processes that may, or may not, cause the impacts. A good example of this is the list that was composed by the Interorganizational Committee on Guidelines and Principles for Social Impact Assessment in 1994 (Box 1). Besides that many of the variables on the list were in fact not actually social impacts, but rather indicators that could be used to identify possible social impacts, Vanclay (2002) stated that many social impacts were completely missing from the list at all. Social impacts with regard to health and safety (death, injury, diseases) or impacts with regard to human rights (violation of freedom of speech) were not on the list. Although the Committee included the variable 'perceptions of risk, health, and safety', it failed to describe risks and health- and safety-issues as actual impacts. Furthermore, Vanclay (2002) stated that most social impact lists were focusing too much on negative impacts of planned interventions, whereas positive impacts were hardly considered.

Despite the context specificity of social impacts, and the fact that many previous impact lists proved to be inadequate, Vanclay (2002) argued that a truly generic and extensive list of social impacts could have its benefits. It could provide guidance to SIA practitioners and create an awareness of what kind of impacts could be identified during a Social Impact Assessment study. However, he also stated that caution is required, because checklist thinking tends to discourage analytical thinking about what actually causes social impacts. Furthermore, he (2002) stated that variables that cause, or might cause social impacts, should not be generically, but locally defined.

Therefore, as an alternative to the existing checklists, Vanclay (2002), following the conceptual framework based on environmental function evaluation of Slootweg et al. (2001), developed a so called conceptualization of social impacts. The latter was based on a comprehensive review of both SIA and EIA literature, practical experiences of SIA and EIA consultants, and personal experience; and includes most of the potential social impacts that are likely to occur across a range of planned interventions (Vanclay, 2002). However, Vanclay (2002) explicitly warned that his conceptual framework should not be used as a checklist. One of the main features of the framework is that it, in contrast to the checklists, merely includes actual social impacts, instead of social change processes. The conceptual framework consists of seven categories, representing seven different types of social impacts. The impacts presented in the framework show a variation with regard to the level at which they are experienced; including the individual, family and community level. The seven categories of the conceptual framework, and a summary of the social impacts belonging to each category, are presented below (Vanclay, 2002).

Interorganizational Committee

Population characteristics
1. Present population and expected change
2. Ethnic and racial diversity/distribution
3. Relocated populations
4. Influx or outflow of temporary workers
5. Seasonal residents

Community and institutional structures
6. Voluntary associations
7. Interest group activity
8. Size and structure of local government
9. Historical experience with change
10. Employment/income characteristics
11. Employment equity of minority groups
12. Local/regional/national linkages
13. Industrial/commercial diversity
14. Presence of planning and zoning activity

Political and social resources
15. Distribution of power and authority
16. Identification of stakeholders
17. Interested and affected parties
18. Leadership capability and characteristics

Individual and family changes
19. Perceptions of risk, health, and safety
20. Displacement/relocation concerns (perceptions)
21. Trust in political and social institutions
22. Residential stability
23. Density of acquaintanceship
24. Attitude toward policy/project
25. Family and friendship networks
26. Concerns about social well-being

Community resources
27. Change in community infrastructure
28. Native American tribes
29. Land use patterns
30. Effects on cultural, historical, and archaeological resources

Box 1: Social impact variable list of the Interorganizational Committee on Guidelines and Principles for SIA (Vanclay, 2002)

Category 1: Indicative Health and Social Well-being Impacts
This category includes impacts as: changes in both perceived and actual physical and mental health; death; changes in future aspirations for self and others; feelings of uncertainty, exclusion and

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dissatisfaction related to the planned intervention; positive/negative feelings about the planned intervention; experience of moral outrage because of violation of deeply held norms, values and beliefs.

Category 2: Indicative Quality of the Living Environment (Livability) Impacts
This category includes impacts as: changes in both perceived and actual quality of the living environment in terms of dust, noise, blasting, safety, presence of strangers, etc.; disruption to daily living practices; changes in leisure and recreation opportunities and facilities; changes in aesthetic quality of environment; changes in perceived and actual quality of housing and availability of housing facilities; changes in adequacy of both physical and social infrastructure; changes in both perceived and actual personal safety and fear of crime.

Category 3: Indicative Economic Impacts and Material Well-Being Impacts
This category includes impacts as: changes in workload (amount of work that's necessary to survive; changes in standard of living; changes in access to public goods, government services, and other social services; changes in economic prosperity; changes in income and occupational status; changes in property values; changes in level of unemployment; loss of available jobs; changes in economic dependency and vulnerability; disruption of local economy.

Category 4: Indicative Cultural Impacts
This category includes impacts as: changes in cultural values such as morals, beliefs, language, rituals, dress; cultural affrontage (violation of sacred sites, breaking of taboos etc.); change in cultural integrity (the degree to which local cultures are respected and likely to persist); cultural marginalization (exclusion of groups because of their cultural characteristics); profanation of culture (commercial exploitation of cultural heritage); loss of cultural and natural heritage; loss of language or dialect.

Category 5: Indicative Family and Community Impacts
This category includes impacts as: changes in family structure; changes to sexual relations; changes in obligations to living elders and ancestors; family violence; disruption of social networks; changed demographic structure of the community; changes in community identification (place attachment, sense of belonging); changes in perceived and actual community cohesion; social tension and violence caused by conflict and division within the community; social differentiation and inequity.

Category 6: Indicative Institutional, Legal, Political and Equity Impacts
This category includes impacts as: changes in workload and viability of government/non-government and formal/informal agencies caused by a planned intervention; changes in integrity of government institutions; loss of tenure of legal rights; loss of subsidiarity; violation of human rights; changes in participation with regard to decision making; changes in access to legal procedures and legal advice; changes in impact equity (what is a fair distribution of impacts across the community).

Category 7: Indicative Gender Relations Impacts
This category includes impacts as: changes in women's physical integrity (the right of women to be able to make their own decisions about their body, health and sexual activity, pregnancy etc.); changes in

personal autonomy of women (level of independence, self-respect and self-reliance); gendered division of production-oriented labor, household labor and reproductive labor(unequal distribution of workload between women and men); gender-based control over, and access to, resources and services; changes in equity of educational achievement between boys and girls; changes in political emancipation of women (women's influence on decision making).

Although the list of impacts above is considerably more complete than for example the list that was presented by the Interorganizational Committee, Vanclay (2002) argues that it's impossible to create a list of impacts that's actually 'complete'. Furthermore, he states that every list is always, to some extent, biased by the background and personal values and beliefs of its creator (Vanclay, 2002, p.200). However, in contrast to other lists, this conceptualization of social impacts considers both positive and negative impacts, and both unintended and intended impacts; and therefore captures most of the potential impacts that are likely to happen as a result of a planned intervention (Vanclay, 2002).

2.4 Strengths and weaknesses

The growth of SIA is probably best expressed in the fact that the importance of social issues becomes more and more recognized by governments, project developers and engineering consultancies (Esteves et al., 2012, p.37). SIA promotes an increase of knowledge and capacities among both individuals and organizations. And, because SIA methods can be integrated in most phases of the decision making process, it expands the work fields of individuals and increases their responsibilities. Furthermore, SIA encourages project proponents to invest in corporate social responsibility and community development (Esteves et al., 2012). By cooperating with, and assisting affected communities, project proponents can invest in trust relations which can be beneficial for both parties. Also, SIA assists project proponents in improving the balance of costs and benefits of their projects by stimulating positive development outcomes and avoiding and mitigating negative outcomes (Esteves et al., 2012, p.37). An important tool in this is the social development needs analysis (SDNA), which was developed by Esteves and Vanclay (2009). SDNA is meant to assist proponents to evaluate different alternatives with regard to community development. It can be used to adjust projects to the needs of communities and other regional planning priorities. Also it provides an overview of the risks that proponents might face during the project or in assisting communities (Esteves et al., 2012, p.38).

However, although SIA has grown stronger during recent years, it still has its weaknesses. One of the major issues that remains a problem for SIA is that social impacts are still not getting as much attention as environmental issues (Esteves et al., 2012, p.38). This is both due to a lack of interest and a lack of knowledge for social issues among project managers. Because of their limited number and the limited resources for quality control available to them, SIA practitioners often have insufficient influence in shaping project alternatives. Furthermore, if they actually do assess the impacts on humans, many proponents tend to produce assessments that only just pass the regulations (Esteves et al., 2012). Another key issue, especially in areas where multiple projects overlap, is data currency (Esteves et al., 2012, p.38). Data that's conducted from written sources (secondary data) quickly becomes outdated and therefore needs to be continuously complemented by local data (primary data). The local data provides SIA practitioners insights in the needs and aspirations of the community. However, for the collection of local data, skilled social researchers are required, which are not always equally available in every region or for every project (Esteves et al, 2012). Another weakness of SIA is its lack of methodological accuracy (Esteves et al., 2012, p.38). Many SIA studies lack adequate details about validity, reliability and

significance, as well as details about sources and assumptions. Consequently, the quality of analysis often appears to be substandard. This results in 'supposed to be' social impact assessments that actually turn out to be little more than a social and economic profile of the affected communities composed from written data sources. The analyses often lack information about how both negative and positive development outcomes are spread among stakeholders and communities, and where and when they are likely to occur (Esteves et al., 2012).

As one of the key features of SIA, public participation is an important tool for SIA practitioners. However, in practice, public participation often does not meet the expectations of communities (Esteves et al., 2012, p.38). Some project proponents tend to see SIA merely as a process for incremental project improvement, or just as an easy way to legitimize their projects (Esteves et al., 2012, p.38). Instead of promoting active involvement of communities and stakeholders, they limit themselves to the simple supply of information about the project to interested parties. As a result, communities and stakeholders can feel left out and are likely to turn against the proponent and its project. Another frequent problem is the lack of public availability of SIA reports (Esteves et al., 2012, p.38). Many reports are not available to the public, and even if they are, they are often difficult to lay hands on. Finally, SIA reports sometimes fail to address cumulative social impacts. This makes them ineffective and inefficient (Esteves et al., 2012, p.38).

After this theoretical introduction into the SIA philosophy, the following chapters will focus more on the practical side of impact assessment and -management. The SIA framework will be used to analyze and evaluate the role of social aspects in Dutch impact assessment and management around infrastructure projects. Building up to that, Chapter 3 provides an overview of the laws and regulations for infrastructure projects in the Netherlands. More particularly, the chapter describes the legal obligations with regard to impact assessment and decision making around infrastructure projects. Chapter 4 gives an insight in to how these laws and regulations are implemented in practice, and to what extent they are useful in assessing and managing social issues. The chapter is mainly based on the practical experiences of Dutch government officials.

3 Infrastructure Projects: Laws and Regulations

The Dutch system for spatial planning operates on the basis of a comprehensive legal framework. As spatial planning is a very wide concept that includes a wide range of activities, the variety of laws and regulations related to it is rather extensive. However, if we restrict our focus to infrastructure projects, there are a few laws of special importance. First of all, there's the Infrastructure Act (*Tracéwet – Tw*). This act basically describes the procedure that should be followed in case of an infrastructure project. Another act that is of great importance when it comes to infrastructure projects is the Environmental Management Act (*Wet Milieubeheer – Wm*). This act is meant to protect the environment and to minimize environmental damage caused by human activities.

In this chapter these two laws are discussed in more detail. However, by way of introduction, the first section of this chapter (3.1) deals with the concept of infrastructure projects. It's important to understand first what the researcher considers as infrastructure projects before discussing the laws that shape them. In section 3.2 the earlier mentioned Infrastructure Act is discussed. Special attention is paid to the way this act is of concern for both the planning and implementation of infrastructure projects. Section 3.3 deals with the Environmental Management Act and shows why this law is important with regard to infrastructure projects. Finally, in section 3.4 some other laws of greater and lesser importance with regard to such projects are discussed shortly.

3.1 Infrastructure projects

The Netherlands is a very densely populated country. Everyday seventeen million people live, play, work and move on a surface of less than 42000 square kilometers. Sharing this limited amount of space with so many people, asks for a thoughtful and strategic spatial planning. An essential part of this spatial planning is a solid infrastructure. Infrastructure brings people from A to B, but even more, it's a tool that enables people to fulfill their (daily) needs. Without it, people would be stuck in one place, and very limited in their actions. Therefore, building and maintaining a good infrastructure network is a serious business in the Netherlands.

The term infrastructure comprehends both hard and soft infrastructure. The first refers to tangible infrastructure for the purpose of traffic and transportation; meaning roads, bridges, tunnels, railways, train stations, waterways, airports, ports, sewers etc. (Shen et al., 1996 cited in Pausenberger, 2009, p.3) Soft infrastructure on the other hand is not necessarily tangible. It includes more abstract types of infrastructure such as economic and social infrastructure, which can refer to financial systems, health care systems, social media, and educational systems among others. In this research however, the focus is merely on hard infrastructure (Pausenberger, 2009, p.3).

The responsibility for maintaining and expanding the Dutch infrastructure network lies mainly with the national government, or more precisely, the Dutch Ministry of Infrastructure & Environment. With regard to infrastructure, the Ministry operates on a long term schedule. In 2012 the Ministry presented the so called *Structuurvisie Infrastructuur en Ruimte (SVIR)*, which represents the long-term vision of the Ministry with regard to issues of infrastructure, mobility and space (Ministry of Infrastructure & Environment, 2012). The document provides a vision that goes as far as the year 2040, and is meant to function as a planning guide for the national government. Although the SVIR is a very global document that describes only planning goals of national interest, indirectly it's also of importance to provincial and municipal governments. In the context of an integral approach, the spatial planning policies of both the central government and the provincial and municipal governments are strongly related (Ministry of I&E,

2012). Like the central government, the provincial and municipal governments have the authority to make their own long-term visions for their own jurisdictions. They can translate these visions into concrete spatial projects (De Kam & Schellekens, 2010, p.17). However, when it comes to infrastructure projects, especially those that are of national interest, most responsibility lies with the central government (Rijksoverheid, 2014). Based on the SVIR document, the Ministry of Infrastructure & Environment, in cooperation with the Ministry of Economic Affairs and the Ministry of Internal Affairs, yearly presents the Multiannual for Infrastructure, Space & Transport *(Meerjarenprogramma Infrastructuur, Ruimte & Transport – MIRT)*. In this multiannual the long-term goals and interests of the Ministry are translated into concrete plans for infrastructure projects. All the infrastructure projects that are funded by the central government are part of the MIRT. Furthermore, the MIRT includes projects from lower governments that are subsidized by the central government. The infrastructure projects mostly comprehend the construction or adjustment of roads, waterways, railways, train stations, airports or ports. The MIRT projects are bound to specific MIRT-rules, which describe the procedural steps that ought to be followed during the planning and implementation phases of the projects (Rijksoverheid, 2014, p.9).

3.2 Infrastructure Act (*Tracéwet – Tw)*

First introduced in 1993, the Infrastructure Act (Tw) is meant as a procedure that should be followed in case of national infrastructure projects, meaning the construction and/or adjustment of infrastructure that serves a national interest. The Act applies for national highways, railways and waterways. The procedure described in the Act consists globally of seven steps: 1. Start decision – 2. Reconnaissance – 3. Decision of preference – 4. Decision on design project – 5. Project decision – 6. Implementation – 7. Evaluation and follow-up test (Rijkswaterstaat, 2014a). Below, these seven phases are described in more detail.

Step 1: Start decision
The start decision should be seen as a preparation for the next step in the procedure, the reconnaissance. Part of the start decision is for the Minister of Infrastructure & Environment to make sure whether or not there is an existing or future problem with a highway, waterway, railway etc., or the lack of any of those infrastructure constructions. When there appears to be a problem with regard to infrastructure in a certain area, this area is designated as the project area. During the start decision phase, both the existing problem and other (potential) relevant developments in the project area should be briefly discussed. Furthermore, the degree of public participation during the project, meaning the involvement of citizens, civil society organizations and other governing bodies, should be discussed and demarcated during the start decision. Also, the time period in which the next step in the procedure, the reconnaissance, should be completed is discussed. Finally, during the start decision should be decided whether or not a so called structural concept[1] (*structuurvisie)* should be prepared as part of the reconnaissance. All the information discussed during the start decision phase should be published in the Dutch Law Gazette (*Staatscourant)* and sent to the Dutch House of Representatives and other involved authorities (Tw, 1993, a.2).

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[1] A structural concept [structuurvisie=Dutch] describes the spatial policy of a municipality, province or the central government in their respective jurisdictions for a certain period of time. It describes the governments vision on how the area should be developed and what spatial interventions are, and are not allowed in the area. Also it describes the predicted spatial developments in the area (De Kam & Schellekens, 2010, p.17)

Step 2: Reconnaissance
The main purpose of the reconnaissance is to explore how a certain problem can best be solved. In line with the start decision phase, the project area, as well as relevant developments in the area, should be mapped and analyzed. Furthermore, the existing problem should be demarcated and possible solutions must be considered. During this phase, the public; meaning citizens, civil society organizations, other governing bodies; should be involved by way of briefings and other participation opportunities (Rijkswaterstaat, 2014a).

Step 3: Decision of preference
Following on the findings of the reconnaissance, the Minister of Infrastructure & Environment speaks out his/her preference for a particular solution for the problem in the project area (Rijkswaterstaat, 2014a). The preference can refer to one of the following: a. the construction or adjustment of a highway, railway or waterway of national importance; b. a solution without construction or adjustment of a highway, railway or waterway of national importance; c. a combination of a and b along with the construction of another spatial project; d. no solution (Tw, 1993, a.3(1)) In his/her decision of preference the Minister should take into account all the information that's provided by the reconnaissance, including the information brought in by public participation. Furthermore, the results of the reconnaissance are incorporated in a provisional structural concept, which should be available to the public for at least six weeks. The structural concept should be accessible both online (Center for Public Participation) and through local libraries and town halls. During these six weeks the public can show its concerns and/or express its own ideas. Along with the structural concept, an Environmental Impact Report (EIR), following from an Environmental Impact Assessment (EIA), should be presented and made available to the public. This EIR describes the environmental impacts of the different solutions (project alternatives) that are likely to occur in and around the project area. The contents of the EIR should be checked on completeness and correctness by a special EIA Commission. If the EIR turns out to be either incomplete or incorrect, the Commission should speak up (Rijkswaterstaat, 2014a).

Step 4: Decision on design project
After the Minister has outspoken his/her preference for a particular project alternative (solution), and after the environmental impacts of the different alternatives have been assessed, one of the alternatives should be chosen for further examination (Rijkswaterstaat, 2014a). A document that contains a wide description of the proposed project should be provided. This document should include a description of: the measures to be taken for project implementation, and the integration of these measures in the project area; the measures to be taken, aimed at the undoing, reduction or compensation of the adverse effects of the project implementation, provided that these measures are directly related to the project implementation; the measures to be taken that ensure conservation and safe and efficient use of the project; the temporary measures that need to be taken during the implementation of the project; a geographical map of the project; a maximum time frame in which the Minister should judge on the environmental impacts of the project implementation (Tw, 1993, a.10(1)). This document should then be presented to the public once more. In case of large projects, another EIA should be conducted. Both the project alternative document and an EIR should be available to the public, either digitally (Center for Public Participation) or written (libraries and town halls), for at least six weeks. The public should be able to comment on both documents either verbally or in writing. In case of an EIR, the EIA Commission should be able to provide advice as to whether or not the information in the EIR document is correct and complete (Rijkswaterstaat, 2014a).

Step 5: Project decision
When both the design project document and the EIR have been available to the public for six weeks, and when all opinions are heard, the Minister of Infrastructure & Environment makes the final decision about whether or not the project should be implemented. Interested stakeholders who disagree with the Minister's decision, have the opportunity to appeal against the decision at the Administrative Section of the Council of State (Rijkswaterstaat, 2014a). However, after a maximum of two years, the Minister has to make a decision (Tw, 1993, a.9(1)). As soon as the decision has become irrevocable, the relevant province(s) and municipalities should prepare to implement the chosen project on their respective territories. To do so, municipalities might have to adjust their (local) land-use plans[2] and grant certain authorizations (Rijkswaterstaat, 2014a).

Step 6: Implementation
The project decision is final and irrevocable and there are sufficient financial means available to start implementation. Implementation of the project starts (Rijkswaterstaat, 2014a).

Step 7: Evaluation and follow-up test
After the implementation of the project is finished, the actual environmental impacts of the new highway, railway or waterway are analyzed. By doing so, one should be able to determine whether or not the estimations of environmental impacts as described in the EIR were accurate. Based on this evaluation decisions should be made as to whether or not additional research on environmental impacts is necessary. The follow-up test should be conducted to make sure whether or not legal standards with regard to environmental aspects, noise, nature, and air quality, were met (Rijkswaterstaat, 2014a).

3.3 Environmental Management Act (*Wet Milieubeheer – Wm*)
The Environmental Management Act (Wm) was first introduced in 1979 (Wm, 1979). It's main purpose is to protect the environment. As the Act is very comprehensive, the researcher has chosen to discuss only those aspects that are of direct importance to infrastructure projects. Consequently, only chapter 7 of the Wm, dealing with 'environmental impact assessments', is discussed below. This particular chapter was chosen because it plays a significant part in both the planning, implementation and evaluation phases of infrastructure project procedures. The chapter deals with the impacts of development on the environment.

Environmental Impact Assessment
Chapter 7 of the Environmental Management Act discusses the procedure for EIA's. In paragraph 2 of that chapter is discussed what kind of projects require an EIA. In the paragraphs 3 to 5 the focus is on the EIA procedure for spatial plans, as where the paragraphs 6 to 10 focus on the procedure for spatial decisions. It should be noted that a 'plan' can be understood as a (preferred) project alternative, following from the Minister's 'decision of preference' as described in paragraph 3.2. A (spatial) 'decision' on the other hand, refers to the final decision in favor of the actual implementation of one particular project alternative. However, for the sake of the clarity of this thesis, the researcher will from here on capture both terms under the heading of 'project(s)'. In paragraph 11 the focus is on transboundary environmental impacts, as where paragraph 12 focuses on the ex post evaluation of the environmental impacts of a project (Wm, 1979).

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[2] A local land-use plan [bestemmingsplan=Dutch] prescribes how the space in a specific municipality may be used. For every destination in the municipality is described whether or not, and if yes how, construction works can take place. The local land-use plans account for both the respective municipality and the citizens living in that municipality (Rijksoverheid, n.d.).

The question as to what kind of projects require an EIA is quite straightforward: all projects that imply activities that can have adverse effects on the environment. In some cases however, it's not entirely clear whether or not particular activities will cause harm to the environment. In those cases a qualified authority should decide on this.

Each EIA study is preceded by an intensive preparation. This preparation is described in the paragraphs 7.4, 7.8 and 7.9 of the Wm (1979). The first step is to define the scope and level of detail of the EIA (Wm, 1979, a.7.8). Once this is done, the proposers of the project should make clear when and where their plan for the proposed project will be available to the public; when and how interested citizens/stakeholders should be able to give their opinions on this plan; whether or not the independent EIA commission will be given the opportunity to provide advice on the plan; and whether or not the project might have significant consequences for any Natura 2000[3] areas (Wm, 1979, a.7.9).

The findings of an EIA should be documented in an EIR (Environmental Impact Report). According to the Wm (1979, a.7.7(1)) this EIR should include the following:

1. A description of the purpose of the proposed project.
2. A description of the proposed project, as well as a description of possible alternatives for this project. Furthermore, a motivation for the chosen alternatives.
3. A review of all the previously established plans that are somehow related to this project and these project alternatives.
4. A description of the current state of the environment in the project area, and how the proposed project might have its impacts on this environment. A description of the estimated development of this environment in case of a non-implementation scenario.
5. A description of the estimated impacts on the environment in the project area in case of implementation of the proposed project or any of the project alternatives. Furthermore, a motivation of how these impacts are estimated.
6. A comparison between the two situations as described under sections 4 and 5. That means: a comparison between the estimated development of the environment in case of non-implementation and in case of implementation of the proposed project. And a comparison between non-implementation and any of the project alternatives.
7. A description of the measures that should be taken to avoid, restrict or erase adverse environmental impacts of the proposed project or any of its alternatives.
8. A review of possible information gaps in the estimations as described under sections 4 and 5 as a result of a lack of knowledge.
9. A summary of all the previous actions. This summary should be readable and understandable to a wide audience, so that the audience can react on it.

With regard to the contents of the plan for the proposed project the Act prescribes the following requirements (Wm, 1979, a.7.14(1)). It should include a description of: how the proposers of the plan mean to deal with potential environmental impacts caused by the proposed project; to what extent possible project alternatives were considered; to what extent the opinions and ideas of interested citizens/stakeholders were considered; and to what extent the advice of the EIA Commission was considered. A project proposal will be refused when no EIR is included[4]; when the EIR does not meet the requirements as described in article 7.7 of the Wm (see above); or when the EIR contains inaccuracies (Wm, 1979, a.7.28(1)).

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[3] Natura 2000 is a European network of ecologically valuable nature areas. It finds its origin in the European Birds and Habitats Directive. It's main purpose is to protect important flora and fauna (Regiegroep Natura 2000, 2014).
[4] It should be noted that this does not apply for all projects. For some projects EIR's are not mandatory. However, EIR's are mandatory for all infrastructure projects in the Netherlands.

Both the (final) project proposal and the EIR should be made available to the public at the same time (Wm, 1979, a.7.30). Interested citizens/stakeholders should be able to respond to both documents.
They can express their ideas and concerns over a time period of at least six weeks, both orally and in writing (see paragraph 3.3).
In paragraph 7.11 of the Act, the focus is on potential transboundary impacts of projects, and it prescribes that if adverse environmental impacts spread into another country, the government of that respective country should be informed as soon as possible. Furthermore, both the EIR and the project proposal should be made available to the foreign government. Thereafter, both countries should consider measures to prevent or restrict the impacts (Wm, 1979, a.7.38a). Based on the outcomes of this discussion the involved Dutch Minister can decide to renounce the project's implementation (Wm, 1979, a.7.38e).

Paragraph 7.12 of the Wm prescribes that the proposers of the project are responsible for evaluating the actual environmental impacts of the project both during and after implementation (Wm, 1979, a.7.39). They should present a report of their findings to the EIA Commission and other involved governing bodies (Wm, 1979, a.7.41). When the adverse environmental impacts of the project turn out to be worse than estimated, the proposers of the project should take measures to restrict or prevent these impacts as much as possible. They can also decide to adjust or cancel the project (Wm, 1979, a.7.42).

3.4 Other laws
Besides the two laws discussed previously there are other laws that are of greater and lesser importance for infrastructure projects. Below they are discussed briefly.

Spatial Planning Act (Wet ruimtelijke ordening- Wro)
This Act describes different types of spatial plans and prescribes how they should be structured and used. Chapter 2 of the Act deals with the so-called structural concepts (*structuurvisies*), which are long term visions in which governments describe their spatial policy for a certain period of time. The visions can be made by both municipal and provincial governments and the national government (Ministry), each displaying a vision for its own jurisdiction. The structural concepts describe both the estimated and desired spatial developments for a specific area (municipality, province, nation). They also prescribe for what purpose particular parts of the area can and can't be used: some parts are assigned to use for construction, whereas others should be used for nature preservation or economic development (De Kam & Schellekens, 2010, p.17). Another spatial plan type is the local land-use plan (*bestemmingsplan*), which is described in chapter three of the Wro. This plan is comparable to the structural concept in that it assigns specific purposes to specific areas. However, the local land-use plan is made only by municipalities, as where the structural concept is not. It's mostly expressed as a map that shows all the different land-use purposes, like for example: living, playing, farming, building, shopping, parking, etc. (Wro, 2006, a.3.1). Since 2008 the national government and provinces are empowered to make their own land-use plans (*inpassingsplannen*), which can overrule the municipal land-use plans (Wro, 2006, a.3.26). With regard to infrastructure projects, these three plan types are important because they represent a framework, a set of rules, in which such projects should fit. That means that project proposers should always be aware of the (local) land-use plan(s) and structural concept(s) in the intended project area. However, the Act also prescribes that for some spatial interventions, particularly those that are of special national or provincial interest, a land-use plan can be ignored (Wro, 2006, a.4.1; 4.3). The Act also prescribes procedures for compensation in case people are financially affected by the consequences of a (local) land-use plan (Wro, 2006, a.6.1).

General Administrative Law Act (Algemene wet bestuursrecht – Awb)
This Act prescribes the rules with regard to the relation between government and society (citizens, companies, non-governmental organizations etc.). Although this Act doesn't as clearly relate to spatial projects as the previously described acts, it plays a very important role in the decision making processes of such projects. Chapter 2 of the Awb describes the rules with regard to communication between the government and the public. In chapter three of the Act, the rules for decision making are described. It dictates that in preparation for any decision, a governing body should first gain sufficient knowledge in the matter and explore what different interests are at stake (Awb, 1992, a.3.2). However, it also says that the interests of some, and the negative consequences they might face as a result of a particular decision, may never be at odds with the general interest (Awb, 1992, a.3.4). In the same chapter, the Act prescribes the rules for making government documents available to the public, which include: the time period that the documents should be available; where and when the documents should be made available; how the public should be informed of its availability (Awb, 1992, a.3.11; 3.12). In line with this, rules are described with regard to the way interested citizens and stakeholders can respond on the documents and how and when they can appeal against a decision (Awb, 1992, a.3.16; 3.28). Chapter 4 of the Act deals with, among other things, an arrangement for financial compensation. The arrangement is meant for citizens or companies that have suffered damage as a result of government activities (Awb, 1992, a.4:126). With regard to infrastructure projects the Awb is relevant because it describes the rules for and rights of both the government and the public (concerned citizens/stakeholders) during the design and decision making processes of such projects.

General Provisions Act Environmental Law (Wet algemene bepalingen omgevingsrecht – Wabo)
This Act deals with the provision of environmental permits and describes the procedure that should be followed in order to get such a permit. An environmental permit is necessary for almost any intervention in a public space, especially infrastructure projects. Among other things, it's meant to limit the construction of roads and highways, and the disturbance or destruction of monuments and historic town- and cityscapes (Wabo, 2008, a.2.1).

The Acts described in this chapter structure the processes of planning, implementation and evaluation of infrastructure projects. They provide both opportunities and limitations for project proposers and project managers, as well as for concerned citizens and stakeholders. The Acts are designed to stimulate quick and fair decision making, and to serve the general interest. Furthermore, they are meant to keep a balance between spatial development and the environment: development where and when it's possible, and environmental protection when it's necessary. However, where the physical environment, in terms of adverse impacts on nature and landscape, seems to be very well covered, the social environment receives little attention. In the next chapter of this thesis, the focus is more on this social environment. The leading question is how the Dutch government deals with (adverse) impacts of infrastructure projects on the social environment. As an addition to the Acts that were discussed in this chapter, the next chapter will be mostly based on actual experiences of government officials and experts, obtained from interviews.

4 Infrastructure Projects: Managing Social Issues

As discussed in the previous chapter, relevant legislation for infrastructure projects focuses highly on environmental issues. However, the depth of social issue consideration remains unclear. Thus, in this chapter, the researcher looks beyond the legislative framework to further analyze the practice of project planning, implementation, and evaluation. In doing so, he compiles personal commentary from interviews with the following respondents:

- *Prof. dr. Jos Arts*, a Strategic Advisor Infrastructure and Environment for the Dutch Ministry of Transport and Public Works & Watermanagement (*Rijkswaterstaat*). He is also a Professor in Environmental and Infrastructure Planning at the University of Groningen and a member of the International Association for Impact Assessment (IAIA).
- *Dr. David Hamers*, a senior researcher Urban Area for the Department of Spatial Planning and Quality of the Local Environment at PBL Netherlands Environmental Assessment Agency.
- *Ir. Rienk Kuiper*, a Spatial Planning Program Manager for the Department of Spatial Planning and Quality of the Local Environment at PBL Netherlands Environmental Assessment Agency.
- *Drs. Niels Sorel*, a researcher for the Department of Spatial Planning and Quality of the Local Environment at PBL Netherlands Environmental Assessment Agency.
- *Drs. Steven Wouda*, a Coordinating Advisor at the Dutch Ministry of Infrastructure and Environment. Previously, he worked as a team leader at the Center for Public Participation (CPP).
- *Drs. Kees Hansma*, a MIRT Coordinator for the Directorate General Space and Water at the Dutch Ministry of Infrastructure and Environment.
- *Drs. Zjèf Budé*, a Program Manager for the Directorate General Space and Water at the Dutch Ministry of Infrastructure and Environment.

The chapter is divided into three sections, each of which discusses a different aspect of social impacts. This division is partly based on the four-phase SIA process as described by Esteves & Vanclay (2009) in chapter 2. The four phases were: 1. identifying and understanding the issues in the project area; 2. predicting/projecting likely social impacts; 3. developing mitigation strategies and project alternatives; and 4. developing monitoring programs to identify unanticipated social impacts that may develop as a result of social change (Esteves & Vanclay, 2009). Section 4.1 deals with the social environment in which the project takes places and relates to the first phase of the SIA process. It primarily investigates the extent of the Dutch government's awareness of social characteristics and issues among the people living in the project area. The second section (4.2) relates to phases 2 and 4 and describes to what extent social impacts are actually considered before, during, and after project implementation. Section 4.3 relates to all phases, but particularly to phase 3. It describes how concerned citizens and stakeholders are involved in the decision-making process and to what extent the Dutch government stimulates public participation.

4.1 The social environment
As opposed to a physical environment, which includes aspects as nature, biodiversity, water quality, landscape etc., the social environment refers to the people living in a certain area (eg. the project area). As they may be directly affected by the spatial intervention, these people should be of great importance to any project developer. Knowledge about their living patterns, religious beliefs, age structure, cultural norms, and important values can be useful in predicting how they might react to a certain project. It may also be helpful in predicting potential social impacts and in estimating how a community will cope

with these impacts. Exploratory studies conducted prior to project implementation may help project managers gain this essential knowledge about the social environment.

Arts (Personal Communication, 13 February, 2014) states that in regard to infrastructure projects, these kinds of studies are often conducted. An important aspect of this study is stakeholder analysis. Arts: "During the stakeholder analysis a project developer tries to get a clear view of what kind of people live in the project area: who should he and his team talk to, who will cause trouble, how can they best approach these people?" According to Arts, the data for stakeholder analysis is often obtained through databases provided by provinces and governmental research institutions as PBL and CBS. However, he argues that there is no such thing as a 'one-size fits all' study. "Every project is different and therefore requires a different kind of method. In some cases the study is very general and just based on statistical material, but in other cases, surveys are used to get a more detailed idea of the local affairs." Furthermore, Arts states that it also makes a difference whether the national government or local government (province or municipality) initiates a project. Because municipalities and, to a lesser extent, provinces stand closer to the people, they are often better able to 'feel' what is going on in a project area. "They are usually better able to empathize with these people. They might even live or have grown up in the project area themselves," says Arts.

Sorel (PC, 18 February, 2014) agrees with Arts that scale is very important. He stresses that there is not a general procedure that maps social characteristics of a project area and argues that it's more a matter of 'fingerspitzengefühl' of the project developer. "Especially in the case of infrastructure projects, which are mostly initiated by the national government, the character and vision of the project developer are crucial. Does he think it's necessary to conduct an exploratory study on the project area? Or is he not interested in the people who might be affected by his/her project?" However, according to Budé (PC, 21 February, 2014), exploratory studies are not always conducted in the interest of the people living in the project area, but rather in the interest of the project developer. "It's really useful to know what kind of people live in the project area, especially in terms of income and education levels. Wealthy, higher educated people are usually more critical towards spatial interventions in their environment and are therefore likely to cause more difficulties for the project developer. Knowing that, most project developers would sooner choose a lower-income area for their project." Thus, Budé suggests that it's not always a good thing to study project areas in too much detail. "As a government, we try to treat every citizen equally. So that implies that the norms and values, religion, or ethnic background of some, are not more important than those of others. It's the general interest that's most important to us."

To predict the likely response to a project, it's helpful to understand the concerns of the people in the project area. An indication of how they see their future, or the future of the area in which they live, can be useful to project developers. According to Arts (PC, 13 February, 2014), however, little and less is done with regard to such matters. He states that prior to a project, there's usually not many opportunities for public participation. "If there's any participation, it usually goes one way. Project developers will listen to ideas and future visions of the public, but they usually don't do anything with it." According to Budé, this is partly due to the fact that the government has its own long-term vision, which is meant to serve the general interest. "Although we try to listen to the opinion of the public as much as possible, it's impossible to make everyone happy." He states that many infrastructure projects are planned to fit the government's long-term vision. and that it is the government's role, not the public's role, to design those visions. "So, what happens is this: there is a long-term vision, then we think of projects to fulfill this vision, and then we ask the opinion of the public. Not the other way around."

In addition, Hansma (PC, 21 February, 2014) states that many citizens and companies are often not personally interested in the future of the neighborhood's infrastructure. "Especially in a phase of reconnaissance, when there is not yet a clear project design, many people are not so eager to participate or share their own visions." However, Wouda (PC, 21 February, 2014) states that, as soon as project designs become more concrete, and they realize what consequences a project might have for their own future, they speak up. Sorel (PC, 18 February, 2014) calls this the 'participation paradox.' He says: "When all options are still open and nothing has been decided yet, it's hard for people to have an opinion. However, when the decisions are made, they suddenly have an opinion. And then it's usually too late."

Project developers should also be aware of the historical background of a project area, especially with regard to previous experiences with project development. Knowledge about negative experiences in the past, like strong resistance from stakeholders and citizens, can help project developers anticipate similar problems in the future. Arts (PC, 13 February, 2014) states that most project developers take this history into account, while others proceed blindly without consideration of past conflicts. "There are no procedures or rules for it. It's more a matter of historical awareness and sensitivity, which depends on the character and background of the project developer." According to Arts, it's often national bureaucratic organizations, such as *Rijkswaterstaat*, that show little sensitivity for past experiences and eventually pay the price for their naivety. "Municipalities are often more sensitive to these issues. They have more binding with the region and are more aware of the region's past." A good way to deal with negative past experiences doesn't have to be very complicated, says Arts. "Just talk them through in an early stage of the decision-making process. The most important thing is that citizens and stakeholders feel taken seriously. That alone might already take much of the tension away." Hamers (PC, 18 February, 2014) agrees with Arts that there is no rule for dealing with past experiences and that much depends on the project developer. "But when he is aware of certain difficulties in the past, he would be crazy not to anticipate that."

4.2 Assessment of social impacts

As we have seen in the previous chapter, the Dutch government is very concerned with the environmental impacts of infrastructure projects. Environmental Impact Assessments are mandatory for every infrastructure project, and various environmental quality standards strive to ensure that the environment remains unharmed. However, the social impacts of these projects remain under-discussed in Dutch legislation.

Though Arts (PC, 13 February, 2014) admits that social impacts receive little attention in Dutch law, he does not believe they are left unconsidered. In fact, Arts stresses the Dutch spatial planning system's long history with impact assessment. In the early 1980's, before the Environmental Impact Assessment became mandatory for every infrastructure project, environmental and socio-economic impact assessment studies were already part of the Dutch spatial planner's routine. However, unlike the EIA, these studies were not written into law. "When the EIA was introduced [in 1985]," Arts argues, "it was, and still is, considered more as an add-on to the things that were already done." When the EIA became integrated with the Infrastructure Act in 1994, the assessment procedure for Dutch infrastructure projects became more comprehensive. Arts states: "It became more than just an environmental impact assessment. It was used as a 'wheelbarrow' onto which other aspects of impact assessment were added along the way." In addition to purely environmental analyses, the EIA now investigates health & well-being, cultural heritage, and safety aspects. "Environmental and air quality norms form an important part of the EIA and are meant to prevent impacts on health, including those caused by air or water pollution" (Arts, PC, 13 February, 2014). The EIA evaluates well-being by estimating social barrier effects

(eg. following changes in accessibility). The EIA respects cultural heritage by determining when a project may impact culturally historic objects (Commissie voor de milieueffectrapportage, 2012). Impacts on safety (eg. following increased speed limits for a new road) form another part of the EIA (Commissie voor de milieueffectrapportage, 2013).

In addition to the EIA, a socio-economic impact assessment called the Social Cost-Benefit Analysis (SCBA)[5] has gained importance during recent years (Arts, PC, 13 February, 2014). The SCBA is meant to estimate both the positive and negative impacts of infrastructure projects on national welfare. It includes both financial and social costs and benefits of a project. However, an important disadvantage of the SCBA is its determination to quantify social impacts solely based on monetary value. This implies that social costs/benefits are often undervalued compared to financial costs/benefits, causing biased outcomes of the SCBA (Mouter, 2012, p.10). Hamers (PC, 18 February, 2014) describes another disadvantage of the SCBA: its focus on national scale impacts. "Most infrastructure projects have impacts on a regional/local scale, but the SCBA fails to present those impacts accurately, if even at all."

Both the EIA and the SCBA are mandatory for all infrastructure projects and are important aspects of "MIRT rules" (Hansma, PC, 21 February, 2014). These MIRT-rules describe the procedural steps that ought to be followed during the planning and implementation phases of infrastructure projects (Rijksoverheid, 2014, p.9). However, Arts (PC, 13 February, 2014) admits that an actual Social Impact Assessment is not included in these rules. He states that even the term 'social impacts' is seldom used in Dutch spatial planning. But even so, Arts thinks that many social aspects are already covered in the EIA and the SCBA. "It's the story of the wheelbarrow once again. We keep adding new aspects, including social aspects, to the EIA. And because of that, I think a specific SIA is not really necessary in the Netherlands." Wouda (PC, 21 February, 2014) stresses that there is no such thing as a social impact assessment, or a standard procedure to manage social issues caused by infrastructure projects. Hansma agrees with Arts and Wouda: "We don't use the term SIA, but we cover many elements of an SIA. We just don't gather them all under the same umbrella."

According to Kuiper (Personal Communication, 18 February, 2014), it is the project developer's responsibility to discuss social issues during a participation process. "But then again, he is not obliged to do so. It's not defined in any legislation." However, Sorel (PC, 18 February, 2014) argues that Dutch legislation, especially the Spatial Planning Act (Wro) and the General Administrative Law Act (Awb), contains many aspects of legal protection for citizens and companies. He states that when a project is likely to have negative impacts for a certain individual or group, these people have many rights: the right to be informed about the situation, the right to give their opinion, the right to hold on to their property, the right to appeal, etc. Furthermore, Sorel and Arts state that people are protected from health impacts by several environmental quality requirements, which are guaranteed in the Environmental Management Act (Wm). "These rights also give them the opportunity to prevent a project from being implemented," says Sorel.

So although assessing social impacts of infrastructure projects is not mandatory, and there is no legal obligation to conduct a formal Social Impact Assessment study, social impacts are not totally ignored. Estimating and managing social impacts occurs through different channels, including the EIA, SCBA, public participation processes, and legal protection. According to Arts (PC, 13 February, 2014), conducting a separate SIA study would be unnecessary. Though attempts have been made to introduce impact assessment studies focusing primlarily on social aspects, none have ever succeeded. One such

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[5] In Dutch: Maatschappelijke Kosten Baten Analyse (MKBA)

attempt was made by Stolp et al. (2002), who developed the Citizen Values Assessment (CVA). The method was developed for the Dutch Ministry of Transport, Public Works and Water Management (*Rijkswaterstaat*) to help integrate social impact assessment within the EIA. The method could be used to assess citizen's judgments about the qualities of their living environment. It's main purpose was to find out whether or not, from a citizen's perspective, these qualities would be affected by a spatial project. By gaining knowledge about how people judge their environment, and which environmental aspects they considered most important, decision makers could determine potential impacts from a certain project. The method was presented as a specific technique that, unlike SIA, could finally determine people's values and perceptions (Stolp et al., 2002). However, according to Arts (PC, 13 February, 2014), the method turned out to be too expensive and was never actually used. Although Arts admits that it was a great method, he argues that the current methods work just fine and are less expensive. He states that it would have been a luxury product and uses the following analogy: "Everyone would like to drive a Mercedes, but a cheaper car brings you from A to B just as fine."

4.3 Public participation
Though EIA and SCBA are impact assessment tools, public participation is an important tool for managing social issues. Wouda (PC, 21 February, 2014) explains that there are two forms of participation: formal and informal. Formal participation, also referred to as base-level participation, is required by law (see section 3.2) and usually offers the public two participation opportunities during a project. The first opportunity occurs during the reconnaissance phase, and is largely meant to inform citizens and stakeholders about the project. In this phase, however, the project design is in its early stages, and so many of the proposed ideas are relatively vague. The second opportunity arises after the Minister has announced his/her preference for a particular project alternative. Sorel (PC, 18 February, 2014) expresses the major shortcoming of formal participation: that the procedure is "mostly meant to inform people, not to encourage discussion. The project developer sends the information and the public mostly just receives." Arts (PC, 13 February, 2014) describes this process as "closed" participation, referring to the one-way flow of information from project developer to public, which leaves little room for open discussion. "Most times the decisions are already made, and the participation is just a way to inform the public about these decisions."

Informal participation on the other hand, is a more 'open' way of communicating with the public and includes workshops, discussion sessions, designing sessions, surveys, interviews and 'kitchen table conversations' (Arts, PC, 13 February, 2014). Unlike formal participation, this informal communication between project developers and citizens/stakeholders occurs on more equal footing. However, informal participation is not compulsory. Nevertheless, according to Arts and Wouda, there has been a strong shift toward open decision-making processes in recent years, moving away from closed decision-making processes that include only formal participation.

This transition was driven by the Elverding Committee,[6] who developed the 'Faster & Better Method' (2008) to speed up decision-making during infrastructure project implementation. According to the commission, decision-making was slow for two major reasons: excessive focus on formal participation and a changing Dutch society. The latter expressed itself through larger numbers of citizens actively standing up for their interests and showing responsibility for their environment (Elverding Committee, 2008, p.4). Consequently, infrastructure projects, especially those where public participation was limited, faced stronger resistance and, thus, significant delays in implementation. To address this problem, the committee recommended greater involvement of citizens and stakeholders early in the

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[6] Official name: Advisory Committee Accelerating Decision Making Infrastructure Projects

decision-making process. As part of the reconnaissance phase, all ideas and opinions from both project developers and citizens/stakeholders should be heard, discussed, and considered. The 'bad ideas' would then be filtered out, so that the 'good ideas' could be further built upon (Elverding Committee, 2008).

Along with, and based on the Faster & Better Method, a Public Participation Code was developed by the Dutch Center for Public Partcipation. This code, which includes guidelines for informal participation, is supposes to serve as a handhold for project developers and government officials (Centrum Publieksparticipatie, 2009). By sincerely involving citizens and stakeholders in the infrastructure planning process, the Code encourages better and faster decision-making. The Code includes five principles for public participation, which are translated into a set of participation rules (Box 2).

However, Wouda (PC, 21 February, 2014), stresses that there is no 'one-size fits all' participation process. "Every project requires a different approach. In some cases, formal participation is sufficient, but others ask for a more intensive and informal approach." Particularly in infrastructure projects, which often involve a significant change to the social and physical environment, a combination of formal and informal participation is recommended. For other less invasive projects, formal participation may suffice (Advies Werkgroep Inspraak, 2006, p.6). Arts states that it's the responsibility of the project developer to sense what the right approach is for a particular project. "That's why it's important to 'know' the project area, so that you're better able to estimate how people are likely to respond. And based on that [knowledge], you can choose your approach." Choosing the 'wrong' approach can lead to strong resistance later on.

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1. Participation serves decision making
- Administrative-, procedural- and policy-frameworks should serve as a starting point.
- Ensure participation forms an integral part of the decision making process.
- Ensure the participation process stays consistent in case of administrative, procedural, or policy changes.

2. Custom-made participation
- Begin with a stakeholder analysis and ensure that all interests are carefully considered.
- Adjust the form of participation to the (likely) impacts of the project, the audience, and the policy space.
- Develop a process design and a participation plan for both the reconnaissance- and project design phase.
- Ensure that there is enough time and money to carry out the participation process.

3. Teamwork between administrators, government officials, project developers and public
- Ensure administrator approval of the participation plan.
- Involve administrators in the participation process and encourage their enthusiasm.
- Define to what extent the participation of stakeholders/citizens can influence the decision making.
- When a decision is made, ensure the administrators justify this decision and explain how different interests were incorporated in the decision.

4. A correct attitude, suitable competencies and the right knowledge
- Discuss rules of conduct with everyone involved in the participation process.
- Create an atmosphere of respect to ensure everyone feels comfortable sharing his or her opinion.
- Be a reliable partner and create a trusting relationship between participants.
- Be creative and be aware of different participation methods.

5. Clear and reliable communication
- Ensure the connection between different participation sessions is clear.
- Ensure there that participants have access to information about the project at all times and that communication remains open.

Box 2: Public Participation Code 'Faster & Better' (Centrum Publieksparticipatie, 2009)

The development and improvement of informal participation methods like the Faster & Better Method help signal possible social impacts of infrastructure projects, says Hamers (PC, 18 February, 2014). "It provides opportunities for people to express all kinds of concerns, not only environment- or economy related." Unlike formal participation, informal participation processes encourage a dialogue between locals and project developers. Rather than focusing solely on big-picture impacts to the environment or the economy, informal participation examines the details: what impacts will the project have on individual A, family B, or company C (Advies Werkgroep Inspraak, 2006, p.6). "Of course it's not possible to serve each and everyone's interest," says Budé, "but by at least listening to their concerns, and making them feel heard, you can create a trustful relationship with them." Kuiper (PC, 18 February, 2014) adds that when people are seriously involved in the decision making process, they tend to perceive impacts differently. "That means that the actual impacts of the project might be smaller in those cases, than in cases where people were not involved in the decision making process."

However, encouragement of informal participation also has it downsides. Sorel (PC, 18 February, 2014) argues that though involving citizens and stakeholders as early as possible is smart, it does not always work well in practice. He states that in an early stadium, when all options are still open and the project design is unclear, people are usually not interested in participating. "As long as it's all still distant and unknown, people don't care too much. But when plans become more concrete and people sense that their daily lives are going to be at stake, they want to participate."

Another problem for public participation processes is the lack of demographic diversity among participants. Wouda (PC, 21 February, 2014) states that participants are mostly 'elderly, highly-educated, retired white men'. "Simply because they usually have the time, knowledge and money to critically examine plans." Arts (PC, 13 February, 2014) adds: "There is usually one select group that's really dominant during a participation process. But there is often a much bigger group of people that do not participate at all. The so-called 'silent majority.'" Wouda states that it's a challenge for every project developer to include a representative sample of the community in the participation process. However, according to Budé (PC, 21 February, 2014), there are also examples of project developers deliberately choosing a specific project area because they expect little participation there. Certain areas, including those with many lower-educated people or ethnic minorities, have historically had low participation rates (Budé, PC, 21 February, 2014). "These people often lack the knowledge and resources to deal with the government and are therefore an easy target for project developers." In neighborhoods populated by ethnic minorities, language barriers are often a problem. "The language used in policy documents is hard enough to understand for most Dutch people, so imagine how that is for non-native speakers." Wouda (PC, 21 February, 2014), however, stresses that in light of recent developments in informal participation methods and a rapidly changing Dutch society, he expects such practices to occur less frequently in the future.

Another problem in public participation processes during infrastructure projects involves conflicting national and local interests. Large infrastructure projects often serve a national interest while conflicting with local interests. Budé (PC, 21 February, 2014): "Most citizens are only interested in what happens in their own backyard, whereas the national government tries to find solutions that are in the best interest for the entire country." Sorel (PC, 18 February, 2014) argues that local governments are often better able to cope with these problems than the national government, because they have more binding with the people. Therefore, one of the objectives of the Ministry's long-term infrastructure vision (*Structuurvisie Infrastructuur en Ruimte*) is the decentralization of infrastructure projects, in which much of the responsibility surrounding these projects is delegated to provinces and municipalities, rather than to the national government (Rijksoverheid, 2014, p.19).

Despite the fact that public participation still faces some problems, Wouda (PC, 21 February, 2014) thinks it has made big steps forward during recent years. "And it's still in development. There's always room for improvement." One such improvement, suggested by Arts (PC, 13 February, 2014), would allow for the public participation process to resume after project completion, a practice that rarely occurs today. He argues that it's important to evaluate the actual impacts of the project after implementation. "The Infrastructure Act procedure prescribes that there should be a 'follow-up' study after every infrastructure project, through which the actual environmental impacts are evaluated. However, in practice this seldom happens. Certainly not with regard to social impacts."

5 Dutch infrastructure project management vs. the SIA Framework

After describing respectively the SIA framework (Ch.2); the Dutch legislation regarding infrastructure projects (Ch.3); and the Dutch way of managing social impacts (Ch.4); in the previous chapters, in this chapter the researcher brings all this information together in order to discover how current Dutch infrastructure project regulations and impact assessment fit into the SIA framework. The theoretical insights from Chapter 2 serve as the analytical framework, based on which the information from the Chapters 3 and 4 is analyzed. Section 5.1 deals with the four phase SIA process, as described by Esteves & Vanclay (2009), and compares it with the legislation and impact assessment activities in the Netherlands. In section 5.2, Dutch legislation and impact assessment activities are analyzed by means of the core values and principles of SIA, as described by Vanclay (2003). The main purpose is to find out how these values and principles are considered by the Dutch government with regard to infrastructure projects. Section 5.3 deals with the different social impact categories, as described by Vanclay (2002), and describes to what extent they are considered by the Dutch government.

5.1 The process

As described in Chapter 2, the main objective of SIA is to maximize the benefits and minimize the costs (both social and monetary) of development projects, in order to bring about a more sustainable and reasonable environment (Vanclay, 2003). To accomplish this, ideally a four phase process should be followed, consisting of a range of activities aimed at managing social impacts (Esteves & Vanclay, 2009). During phase 1 potential issues and problems related to the project should be identified. Phase 2 is aimed at predicting and documenting the likely impacts of the projects. In phase 3 mitigation measures should be developed to minimize potential impacts. And finally, during phase 4 monitoring programs should be developed to make sure no additional social impacts occur as a result of social change within the local community. Below, the SIA process is used to analyze the Dutch legislation and impact assessment activities with regard to infrastructure projects. It should be noted that each phase consists of several activities, and that each activity is separately compared to the legislation and actions practiced by the Dutch government.

Phase 1: Identifying and understanding the issues associated with the project.
'Identifying and bringing together stakeholders and interested and affected peoples, and creating participatory processes in which they can discuss their desired futures and the acceptability of likely negative and positive impacts, so that they can come to an acceptable agreement with the project proponent(s).'

The Infrastructure Act procedure (s.3.2) shows that there are little legal obligations for bringing together stakeholders and interested citizens in an early stage of the process. According to the procedure, the public is not involved until the reconnaissance phase (Rijkswaterstaat, 2014a). However, the participation as defined in the Act is formal participation; which implies that citizens are only informed, and that there is little room for discussion. Nevertheless, in practice, especially over the last few years, more and more project developers try to include the public as soon as possible (Faster & Better method). However, an important problem is that many citizens are not interested in participating when plans are still really vague. Sorel (PC, 18 February, 2014) describes this as the 'participation paradox'. Furthermore, many citizens are not even concerned with their own futures, let alone the future of their environment (Budé, PC, 21 February, 2014). Another problem is that infrastructure projects are often

meant to serve the national interest, as where citizens often only consider their own interests (Budé, PC, 21 February, 2014). Identifying stakeholders, on the other hand, is part of the Infrastructure Act procedure. It prescribes that during the reconnaissance phase "the project area, as well as relevant developments in the area, should be mapped and analyzed" (Rijkswaterstaat, 2014a). In practice this often includes a so called stakeholder analysis (Arts, PC, 13 February, 2014). However, it should be noted that every project is different and therefore a stakeholder analysis is not legally required.

'Documenting and analyzing the local historical setting of the planned project, in order to gain a good understanding of the local communities and stakeholders and how they are likely to be affected by the proposed project and to be able to anticipate on responses to the project, and to assess possible cumulative impacts.'

Although these activities are not part of the Infrastructure Act procedure, they are, at least partly, included in the Environmental Impact Assessment procedure, as described in the Environmental Management Act. The law prescribes that an EIR should include "a review of all the previously established plans that are somehow related to this project and potential project alternatives" (Wm, 1979, a.7.7(1)). It also says that 'a description of the current state of the environment in the project area, and how the proposed project might have its impacts on this environment', should be included (Wm, 1979, a.7.7(1)). However, these descriptions are very interpretable and besides do not mention any social aspects. Arts (PC, 13 February, 2014) states that, prior to a project, a stakeholder analysis is often used as a way to "understand local communities and stakeholders", but that there are no specific rules or procedures for "documenting and analyzing the local historical setting of a planned project". According to Arts (PC, 13 February, 2014) and Hamers (PC, 18 February, 2014) it very much depends on the character and background of the project developer, and whether or not he/she has the sensitivity and historical awareness to consider these kind of issues. Also the scale at which the project is carried out is important. Municipalities and provinces stand closer to the people and are often better aware of what's going on in the region (Hamers, PC, 18 February, 2014). Nevertheless, with the recent developments in public participation, that aim for including the public as soon as possible, Wouda (PC, 21 February, 2014) argues that more and more project developers are becoming aware of the importance of the historical background of project areas.

'Providing an extensive picture of the local cultural context, and developing an understanding of the local needs and aspirations, and how they relate to the planned project.'

There are no legal obligations regarding these activities. Again, much depends on the skills of the project developer. It's not part of a standard procedure, instead it's the project developer's responsibility to decide whether or not the local cultural context and local needs and aspirations should be considered. However, the Dutch government tries to treat all its citizens equally and therefore cultural differences are often not a primary concern (Budé, 21 Feburary, 2014). People's needs and aspirations are sometimes considered prior to a project, however, this depends on the chosen participation method (not the case for formal participation). On the other hand, Budé (PC, 21 February, 2014) stresses that for infrastructure projects, the national interest is usually more important than the local interest. These projects are part of the central government's long term vision, and should eventually contribute to

development of the entire country. However, local citizens and stakeholders are often only interested in what happens in their 'own backyards' and fail to look at the bigger (long term) picture. So, although a project developer may, or may not, listen to the needs and aspirations of locals, he/she can impossibly consider all their concerns (Budé, PC, 21 February, 2014). Budé concludes: "The government makes a long term vision, then it starts to think of projects that could fulfill this vision, and then it asks the opinion of the public. Not the other way around". Furthermore, as mentioned before, many citizens are not that interested in joining participation processes in an early stage of the project, when there's no concrete design yet and therefore no real threat to their personal lives.

Phase 2: Projection/prediction of likely impacts of development projects that are to be implemented.
'Identifying and describing the activities that are likely to cause impacts (scoping).'

Although the term 'social impacts' is nowhere to be found in the discussed legislation, and no SIA's are ever conducted, social impacts are not ignored in the Netherlands. All interview respondents agreed that many elements of an SIA study are covered, but just not all under one and the same umbrella. So, the term Social Impact Assessment is not used. Instead, (some) social elements are included in Environment Impact Assessments, Social Cost-Benefit Analyses, and (informal) public participation processes. With regard to the EIA, Arts (PC, 13 February, 2014) states that the Dutch EIA is more than just an environmental impact assessment. Since its introduction in 1985, all kinds of aspects have been added, including health & well being, culture/heritage, and safety aspects (Arts, PC, 13 February, 2014). Furthermore, most infrastructure projects require a Social Cost-Benefit Analysis (SCBA), which considers potential impacts on a wide range of aspects, including: prosperity, livability, income levels, employment, safety etc. (Rijkswaterstaat, 2014c; Provincie Limburg & Gemeenten Midden-Limburg, 2011). A disadvantage of the SCBA however, is that it only considers a project's impacts on a national scale (Mouter, 2012). Its inability to estimate regional/local economic impacts makes its contribution to social impact assessment questionable. Another problem with the SCBA is that it's unable to monetize social costs and benefits, causing an overvaluation of the financial costs and benefits, subsequently leading to biased SCBA outcomes (Mouter, 2012). Furthermore, the data used for SCBA's is often very general and conducted from databases, and not directly from citizens (Hamers, PC, 18 February, 2014). Another way through which social impacts can be addressed is informal public participation, or open decision making processes. According to the earlier discussed 'Faster & Better' method, project developers should include citizens and stakeholders in a very early stage of the decision making process (Elverding Committee, 2008). Through discussion sessions, workshops, interviews and other open communication forms, the public has the opportunity to express its concerns and ideas. Although these informal participation processes are not at all labeled as social impact assessment activities, they are definitely useful in addressing potential social impacts. However, because informal participation is not required by law, it's mostly the project developer's responsibility to judge whether or not it should be used in a certain situation.

'Collecting baseline data (social profiling) for the area where the project is planned, in order to be able to compare the situations before and after the planned intervention.'

Baseline data is collected in case of both the EIA and the SCBA. In the Environmental Management Act (Wm, 1979, a.7.7(1)) is described that an EIR should contain "a description of the current state of the environment in the project area, and how the proposed project might have its impacts on this environment", and, "a description of the estimated development of this environment in case of a non-implementation scenario". Although most data relates to the natural environment, aspects with regard to health, culture/heritage and safety are also included (Commissie voor de milieueffectrapportage,

2012; 2013a). The baseline data for SCBA's considers more social aspects and includes information about income levels, social cohesion, education levels, crime levels, employment levels, etc. (Rijksoverheid, 2012). However, as mentioned earlier, SCBA studies only estimate impacts for the entire country, and not for a specific project area.

'Predicting likely impacts and the likely response of different stakeholders on those impacts.'

As mentioned before, likely impacts are predicted through the EIA and SCBA. Arts (PC, 13 February, 2014) states that, in order to gain an understanding of the likely responses of relevant stakeholders in a project area, a stakeholder analysis is conducted prior to every infrastructure project. By identifying the people that have most influence in the region, or those who are likely to oppose the project, the project developer can get an idea of how they will respond on the project and how they are likely to behave during the decision making process (Arts, PC, 13 February, 2014). With this knowledge, a project developer should be able to know how to best approach these people. Although not literally described in the legislation, both the Infrastructure Act and the General Administrative Law Act include aspects that point towards a stakeholder analysis. The Infrastructure Act procedure prescribes that during the start decision phase (1st) the 'degree of public participation during the project should be discussed' (Tw, 1993, a.2). During the reconnaissance phase (2nd), 'relevant developments in the project area should be mapped and analyzed' (Rijkswaterstaat, 2014a). The General Administrative Law Act prescribes that in advance of any decision 'a governing body should gain sufficient knowledge in the matter and explore what different interests are at stake' (Awb, 1992, a.3.2). However, these statements are quite vague and do not concretely prescribe a stakeholder analysis. Arts (PC, 13 February, 2014) and Sorel (PC, 18 February, 2014) admit that project developers are allowed much freedom in this matter.

Phase 3: Development of mitigation strategies in order to minimize potential or unexpected social impacts.
'Assisting stakeholders in evaluating and selecting alternatives for the project.'

The General Administrative Law Act (Awb, 1992, a.3.11; 3.12) prescribes that structural concepts and EIR's should be available to the public for certain periods of time during the decision making process. The information in these documents gives stakeholders the opportunity to evaluate the different alternatives and their impacts for themselves. The public availability of SCBA's however is not legally required. But besides this passive assistance, the Dutch government does not actively assist stakeholders in evaluating and selecting project alternatives. Budé (PC, 21 February, 2014) stresses that it's the government's role to design long term visions and think of projects that fit in these visions. Through (informal) participation processes stakeholders can bring in ideas for project alternatives and contribute to the decision making process. Especially in consideration of the recent developments in informal participation processes, the government encourages citizens and stakeholders to come up with alternatives of their own. However, it should be clear that it's their own responsibility to do so.

'SIA assists in site selection for the project.'

Although no specific SIA's are conducted in the Netherlands, site selection is partly influenced by EIA's and public participation. The EIA considers multiple project alternatives, which sometimes implies different project sites (Wm, 1979, a.7.7(1)). Through (informal) participation the public can have some influence on the chosen project alternative, and therefore the site. Citizens/stakeholders even have the opportunity to come up with their own alternatives (Commissie voor de milieueffectrapportage, 2013b). However, the government always chooses a particular project site with a reason; mostly because there

is a problem that needs to be solved (Budé, PC, 21 February, 2014). So, although there may be different alternatives, the location is often already roughly determined on forehand. The influence of EIA's and informal participation on site selection is therefore relatively small. However, a small adjustment, in for example the route of a highway, can sometimes be of great importance. It should be noted however that in the end, it's always the Minister that decides.

'Taking mitigation measures to minimize negative- and maximize positive impacts of the project.'

The Infrastructure Act procedure (step 4) prescribes that, after the decision for a particular project alternative has been made, a document should be provided that includes an extensive description of the proposed project (Tw, 1993, a.10(1)). Among other things, the document should include a description of 'the measures to be taken, aimed at the undoing, reduction or compensation of the adverse effects of the project implementation, provided that these measures are directly related to the project implementation'. It also speaks of 'measures that ensure conservation and safe and efficient use of the project', and, 'temporary measures that need to be taken during the implementation of the project' (Tw, 1993, a.10(1)). All three of these sentences refer to measures that should be taken during project implementation. They are all meant to make sure that unexpected negative impacts, that occur during the implementation, are identified and taken care of as soon as possible, so that their consequences remain bearable. However, the focus is entirely on mitigating negative impacts. Maximizing positive impacts is not mentioned. Also it remains unclear what kind of impacts are meant here.

During the final step (7) of the Infrastructure Act procedure, there should be a follow-up test. This test is primarily meant to evaluate whether or not environmental- and air quality requirements are met. If not, the Act prescribes that mitigation measures should be taken to make sure the requirements are actually met. However, according to Arts (PC, 13 February, 2014), Hamers (PC, 18 February, 2014) and Wouda (PC, 21 February, 2014), these follow-up tests are rarely conducted in practice. "They're the 'ugly ducklings' of Dutch project management" (Wouda, PC, 21 February, 2014).

'Assisting in the valuation process and providing suggestions about compensation for affected people.'

Financial compensation, under specific circumstances, is legally determined. The General Administrative Law Act (1992) prescribes the so called 'damage compensation[7]' arrangement. This arrangement applies in situations where "citizens or companies have suffered damage caused by actions of the government, that is disproportionally large compared to the damage suffered by others, under the condition that they couldn't have been aware of the potential damage" (Awb, 1992, a.4:126). However, when citizens/companies are fully or partly responsible for the caused damage, the compensation arrangement is not applicable (Awb, 1992, a.4:126). Whether or not the damage is disproportional, is judged by an independent third party (Rijkswaterstaat, 2014b). Damage can include anything caused by the impacts of an infrastructure project. For example: increased travel time because of construction, health problems caused by air pollution, damage to property caused by construction activities, etc. The Infrastructure Act (2006) prescribes a similar arrangement, though it narrows down the term 'damage'

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[7] Dutch: Nadeelcompensatie.

to 'loss of income or depreciation of property' (Wro, 2006, a.6.1(1)). In the case of both arrangements it is formally the citizen's or company's own responsibility to claim compensation. Whether or not affected people are assisted in claiming financial compensation, depends for a great deal on the project developer. When he/she makes use of informal participation and favors an open decision making process, issues like these could be discussed during participation sessions. When a more formal approach is chosen, assistance in these matters is less likely.

Phase 4: Development of monitoring programs to identify unanticipated social impacts that may develop as a result of social change.
'Describing potential (post implementation) conflicts between stakeholders and advising on solutions for these conflicts.'

There are no specific rules that require project developers to describe potential conflicts between stakeholders. However, by means of a stakeholder analysis he/she can get an idea of the interests of relevant stakeholders, and how these interests might conflict with one another. The Committee for environmental impact assessments states that, with regard to public participation, it's important to make sure whether or not group representatives actually represent the interest of the entire group (Commissie voor de milieueffectrapportage, 2013b). The Center for Public Participation stresses that project developers should also keep an eye on relevant social developments both in- and outside of the project area (Centrum Publieksparticipatie, 2014a). So, although describing and advising on (potential) conflicts is not formally required, conflicts are likely to receive attention during informal participation processes.

'Developing strategies for coping with non-mitigatable impacts.'

No requirements for the development of coping strategies for non-mitigatable impacts are currently in use in the Netherlands.

'Contributing to skill development and capacity building in the community (applies for all phases).'

This is not necessarily a goal for the Dutch government. Although, by means of informal participation the government stimulates citizens and stakeholders to come up with plans and ideas of their own. Some project developers even organize specific design and drawing sessions, during which citizens are given the opportunity to express their own ideas. However, it should be clear that, in the first place, public participation is primarily a means for the Dutch government to create public support and to increase the efficiency of decision making (Centrum Publieksparticipatie, 2009). Besides, informal participation is not required by law and therefore its actual content is very dependent on the ideas of the project developer. So, although the government might indirectly contribute to skill development and capacity building in a community, it's not its main purpose.

'SIA assists in inventing and implementing a monitoring plan to track implementation, unexpected social changes, and deviations of mitigation measures.'

None of such monitoring plans currently play a role in Dutch impact management and/or project management activities.

'Advising on appropriate institutional and coordination arrangements for all parties.'

No advise on such arrangements is provided by the Dutch government concerning infrastructure projects.

5.2 Core values & principles

The activities that are part of the previously discussed SIA process, are all based on specific values and principles. These serve as a guide for SIA practitioners to make sure that they contribute to sustainable development. In Chapter 2, the following core values were described (Vanclay, 2003, p.9):

1. There are fundamental human rights that are shared equally across cultures, with no difference between men and women.
2. Everyone has the right to protection of those fundamental human rights by the rule of law, with justice applied equally and fairly to all, and available to all.
3. People have a right to live their daily lives in a safe and healthy environment which provides a good quality of life and enables the development of human and social potential.
4. Social dimensions of the environment – specifically peace, freedom from fear, belongingness, and the quality of social relationships – are important aspects of people's health and quality of life.
5. People have the right to be involved in the decision making about planned interventions that (potentially) affect their daily lives and future.
6. The knowledge and experience of locals is valuable and can be used to improve planned interventions.

In the Netherlands, most of the values mentioned above are enshrined in the Constitution. In relation to the first two core values, article 1 of the Constitution prescribes that "every individual in the Netherlands should be treated equally in equal circumstances; regardless of religion, race, beliefs, political affiliation, or gender" (Gw, 1815, a.1). With regard to the third value, article 21 of the Constitution dictates: "It's the government's responsibility to make sure the country is habitable, and to protect and improve the living environment" (Gw, 1815, a.21). In addition, article 22 prescribes that the government is responsible for: ''the improvement of public health; the provision of sufficient housing; and the provision of opportunities for social and cultural development and leisure'' (Gw, 1815, a.22). The specific social dimensions of the environment, as mentioned in the fourth core value, receive less attention in Dutch infrastructure project management. They are not necessarily ignored, but rather taken for granted (Arts, PC, 13 February, 2014). Arts: "We tend to think that those kind of issues are not present in the Netherlands". Regarding the fifth core value, the General Administrative Law Act (Awb, 1992, s.3.4) prescribes that decisions or plans made by the government, should be made available to the public. This gives the public the opportunity to give their opinion on a specific matter and, if desirable, appeal against it. However, it should be noted that the procedure is rather formal and encompasses mostly one-way communication. That is, the government provides information to the public, but there is no room for direct discussion. Furthermore, final decisions will always be made by the government (Minister). Although the importance of open decision making processes is becoming more and more recognized these days, they are not legally required. The importance of the sixth core value is generally

recognized in Dutch spatial planning. However, whether or not local knowledge is actually used remains very dependent on the vision and character of a project developer (Arts, PC, 13 February, 2014).

In addition to the core values, the SIA method is based on the following principles (Vanclay, 2003, p.9):

1. Respect for human rights should be the basis for all actions.
2. The main stimulator for development planning should be the fostering of equity and democratization, and impacts on the worst-off members of society should be considered at all times in all assessments.
3. Diversity between cultures and within cultures, as well as the diversity of stakeholder interests need to be recognized and valued.
4. Decision makers should be accountable for their decisions, and their decisions should be just, fair and transparent.
5. There should be broad-based acceptance about the development projects among the members of those communities that are likely to benefit from, or be affected by, the project.
6. The experts' views and opinions should not be the only consideration in decisions with regard to planned interventions.
7. Positive outcomes, such as empowerment, capacity building, and the realization of human and social capital, should be the most important focus of all development.
8. A broad definition of the term, 'the environment', is essential, and it should include social and human dimensions. It's important that care is taken to ensure that adequate attention is given to the social aspects of the environment.

Regarding the first two principles it should be noted that, as a parliamentary democracy in Western Europe, human rights and democratization are no matters of concern in the Netherlands. With regard to equity, the Dutch government, as mentioned earlier, aims to treat all individuals that are located in the Netherlands equally in equal circumstances (Gw, 1815, a.1). The latter also implies that differences between cultures (principle 3) are not of particular concern for the Dutch government. As Budé (PC, 21 February, 2014) stated earlier in this thesis: "It's important for the Dutch government to treat all its citizens equally, regardless of for example cultural beliefs or religion." However, that doesn't mean that the government does not pay attention to diverse interests and ideas of different stakeholders. It means that aspects as culture, religion, or race, are considered discriminating indicators of such differences, and are therefore irrelevant. With regard to the fourth principle, it should be clear that the Minister of Infrastructure & Environment is accountable for all (national) infrastructure projects. The Minister makes the final decision about whether a project should be implemented or not. According to the General Administrative Law Act, this decision should be based on sound reasons (Awb, 1992, a.3.49). This implies that the decision should be preceded by a range of activities, including an EIA, SCBA, and at least two (formal) participation moments (see Ch.3 – Infrastructure Act Procedure). Furthermore, the decision should be made available to the public (Awb, 1992, a.3.40), and the public should be able to appeal against the decision (Awb, 1992, a.8.1). The fifth principle has gained more importance during recent years, given the developments in informal public participation activities. However, broad-based acceptance among communities is, and never has been, a goal for the Dutch government (Centrum Publieksparticipatie, 2014b). The goal has always been quick and efficient project realization. Community support is considered a means to achieve this goal (Centrum Publieksparticipatie, 2009). With regard to the sixth principle, it should be clear that expert opinions are very important in the decision making processes of infrastructure projects. The experts (project developer, Minister, etc.) are the ones who make the decisions, and are responsible for them (Budé, PC, 21 February, 2014). However, as described in the General Administrative Law Act (Awb, 1992, a.3.11; a.3.12), citizens and stakeholders

always have the opportunity to express their views on the project at given moments during the process (formal participation). In addition to these formal participation moments, more and more project developers make use of the earlier mentioned informal participation processes. An important feature of the latter is that citizens, stakeholders and project developers have open discussions about project related issues (Centrum Publieksparticipatie, 2009). So, although decisions are never made by citizens or stakeholders, their ideas and opinions are definitely considered in the decision making process.

The topics mentioned in the seventh principle, are not of primary concern for the Dutch government with regard to infrastructure projects. The empowerment of communities, capacity building, and the realization of human capital, might be partly covered by informal participation processes. That is, by providing citizens the opportunity to come up with their own ideas and to create their own project designs, the government encourages them to learn and develop skills. But, it should be clear that this is in no sense a goal for the Dutch government. It's goal is to quickly and efficiently realize infrastructure projects that contribute to a livable, safe, competitive and accessible the Netherlands (Ministry of I&E, 2012, p.10). Including communities in the decision making process, and thereby indirectly encouraging them to learn and develop skills, is nothing more than a means to achieve this goal.

Considering the eighth and final principle, it should be noted that the Dutch government often considers 'the environment' as the physical, natural environment. Although some social aspects (health, safety) are included in the EIA, the main focus is on consequences for nature and biodiversity. However, as stated earlier, this doesn't imply that social impacts are not considered. They're just not labeled as 'social impacts'.

5.3 Social impacts to be considered

In order to give the reader an idea of what social impacts are, Chapter 2 (section 2.3) consisted of a list of seven different social impact categories (Vanclay, 2002). Although the list is not (and can impossibly be) complete, and should therefore not be considered a checklist for SIA practitioners, it contains a relatively wide range of social impacts (Vanclay, 2002).

With this list in mind, the purpose of this section is to reveal which social impacts, and to what extent, are considered by the Dutch government with regard to infrastructure projects. Below, all seven categories are discussed separately. Each category is first described shortly, after which the Dutch situation is discussed.

Category 1: Indicative Health and Social Well-being Impacts
This category includes impacts as: changes in both perceived and actual physical and mental health; death; changes in future aspirations for self and others; feelings of uncertainty, exclusion and dissatisfaction related to the planned intervention; positive/negative feelings about the planned intervention; experience of moral outrage because of violation of deeply held norms, values and beliefs.

Health impacts form an important aspect of the Dutch EIA, especially when infrastructure projects are concerned (Commissie voor de milieueffectrapportage, 2014). They are usually derived from environmental impacts on air quality, noise and external safety, and are estimated by a so called 'health

impact screening'[8] (Commissie voor de milieueffectrapportage, 2014). The HIS has been developed in addition to the legal environmental requirements, because the latter proved not always sufficient in avoiding health risks (Kenniscentrum InfoMil, 2014a). In order to reduce health impacts, multiple project alternatives should be developed as part of the EIA. Alternatives are developed either by choosing a different location, or by adjusting the project so that it fits better in the current location (Commissie voor de m.e.r., 2014). Furthermore, the EIA commission prescribes that an EIR should include mitigation measures aimed at both the prevention of health damage and the improvement of public health (Commissie voor de m.e.r., 2014). However, the focus is mainly on physical health, as where mental health seems to be of lesser concern. An explanation for this might be that mental health is more difficult to measure and harder to estimate. Impacts on social well-being are not as clearly defined as (physical) health impacts. They're not part of the EIA or SCBA, but are likely to be dealt with during (informal) participation processes. The earlier discussed Public Participation Code 'Faster & Better' (Box 2) prescribes that, during a participation process, ''an atmosphere of respect should be created, to make sure participants feel comfortable and dare to speak their minds''(Centrum Publieksparticipatie, 2009). Furthermore, it recommends to "be a reliable partner and create a trustful relationship between participants" (Centrum Publieksparticipatie, 2009). Arts (PC, 13 February, 2014) confirms that informal public participation offers citizens and stakeholders an opportunity to express their feelings and concerns. "So in that sense it can be used to signal potential impacts on social well-being." However, whether or not these impacts are actually signaled depends for a great deal on the (social) skills of the project developer.

Category 2: Indicative Quality of the Living Environment (Livability) Impacts
This category includes impacts as: changes in both perceived and actual quality of the living environment in terms of dust, noise, blasting, safety, presence of strangers, etc.; disruption to daily living practices; changes in leisure and recreation opportunities and facilities; changes in aesthetic quality of environment; changes in perceived and actual quality of housing and availability of housing facilities; changes in adequacy of both physical and social infrastructure; changes in both perceived and actual personal safety and fear of crime.

Most of the impacts mentioned above are included in the Dutch EIA. Depending on the location and characteristics of the infrastructure project, impacts on all, or some of the following aspects are considered: biodiversity, flora, fauna, soil, climate, cultural heritage, landscape, air, water, material goods, health, human population; and an interaction between all these aspects (Kenniscentrum InfoMil, 2014b). The EIA includes both positive, negative, permanent, temporary, direct, indirect, short-term, long-term, cumulative, synergetic, and secondary impacts (Kenniscentrum InfoMil, 2014b). Directly or indirectly related to these aspects, and therefore also often considered in EIA's are: safety (traffic or external), accessibility, mobility, livability, and recreation (DHV, 2009; Provincie Utrecht, 2005). Impacts on the aesthetic quality of the environment are often included as part of impacts on landscape and cultural heritage (DHV, 2009). Potential impacts with regard to quality of housing and availability of housing facilities are often considered in the context of livability (Provincie Utrecht, 2005).

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[8] Dutch: Gezondheidseffectscreening (GES) (Commissie voor de m.e.r., 2014).

Category 3: Indicative Economic Impacts and Material Well-Being Impacts
This category includes impacts as: changes in workload (amount of work that's necessary to survive); changes in standard of living; changes in access to public goods, government services, and other social services; changes in economic prosperity; changes in income and occupational status; changes in property values; changes in level of unemployment; loss of available jobs; changes in economic dependency and vulnerability; disruption of local economy.

Socio-economic impacts of infrastructure projects are assessed through a Social Cost-Benefit Analysis (SCBA). The SCBA covers a wide range of aspects, including: access to public goods, employment, labor market, housing conditions, land- and property values, income levels, livability, safety, social cohesion, education, health, etc. (Rijkswaterstaat, 2014c; Provincie Limburg & Gemeenten Midden-Limburg, 2011; Rijkswaterstaat Noord-Holland, 2011). It also includes environmental aspects as nature, soil, and water (Rijkswaterstaat, 2014c). It should be clear though that not all these aspects are equally relevant for every infrastructure project. That is, for some projects only a certain number of these aspects is studied. Although the SCBA covers many of the aspects mentioned above, the method is not without controversy (Hamers, PC, 18 February, 2014). The biggest criticism is that the SCBA tries to quantify/monetize all impacts. Because some impacts are less easy to monetize than others, they are not equally rated in the study's results (Mouter, 2012, p.10). The quantifiable impacts will always dominate over the non-quantifiable ones (Mishan, 1988 in Mouter, 2012, p.10). This usually means that the latter remain underexposed during the project's decision making process (Mouter, 2012, p.10). Another point of criticism towards the SCBA is that it merely focuses on the impacts on a national scale. It estimates the socio-economic impacts of a particular project for the entire country, and fails to provide detailed information about impacts on a regional/local scale (Hamers, PC, 18 February, 2014).
So, although economic- and material well-being impacts of infrastructure projects are considered, the used method is questionable.

Category 4: Indicative Cultural Impacts
This category includes impacts as: changes in cultural values such as morals, beliefs, language, rituals, dress; cultural affrontage (violation of sacred sites, breaking of taboos etc.); change in cultural integrity (the degree to which local cultures are respected and likely to persist); cultural marginalization (exclusion of groups because of their cultural characteristics); profanation of culture (commercial exploitation of cultural heritage); loss of cultural and natural heritage; loss of language or dialect.

Cultural impacts of infrastructure projects don't receive much attention from the Dutch government. From the above mentioned aspects only 'loss of cultural and natural heritage' is seriously considered in EIA's and SCBA's. An explanation for this is, as Budé (PC, 21 February, 2014) stated earlier in this thesis, that the Dutch government tries to treat all its citizens equally; regardless of their culture, religion, race, gender, or political affiliation (Gw, 1815, a.1). Another explanation might be that the cultural differences in the Netherlands are not quite as intense as in other parts of the world. Compared to the United States, where cultural (and socio-economic) differences between white people, native Americans, and Afro-Americans continue to be an issue; or African countries, where cultural and religious differences have lead to uncountable struggles and wars; the cultural differences in the Netherlands are almost

negligible. That is to say, because the idea of culture is not so much a dividing and obvious factor, the cultural impacts of (infrastructure) projects are considered relatively small. However, Arts (PC, 13 February, 2014) argues that, although the differences are not as obvious and extreme as in other parts of the world, equity issues are not completely absent in the Netherlands. He (PC, 13 February, 2014) states that issues with Moroccan, Turkish or Antillean minorities, especially in and around the bigger cities, should not be ignored. "However, with regard to projects and impact assessment, these issues are hardly considered."

Category 5: Indicative Family and Community Impacts
This category includes impacts as: changes in family structure; changes to sexual relations; changes in obligations to living elders and ancestors; family violence; disruption of social networks; changes demographic structure of the community; changes in community identification (place attachment, sense of belonging); changes in perceived and actual community cohesion; social tension and violence caused by conflict and division within the community; social differentiation and inequity.

The impacts mentioned above are not specifically included in Dutch impact assessment studies with regard to infrastructure projects (Arts, PC, 13 February, 2014). However, because most social issues are dealt with in informal participation processes, Arts (PC, 13 February, 2014) argues that family and community impacts are not necessarily ignored. He stresses however that impacts like these are more relevant for housing projects. There is however no standard procedure to assess them.

Category 6: Indicative Institutional, Legal, Political and Equity Impacts
This category includes impacts as: changes in workload and viability of government/non-government and formal/informal agencies caused by a planned intervention; changes in integrity of government institutions; loss of tenure of legal rights; loss of subsidiarity; violation of human rights; changes in participation with regard to decision making; changes in access to legal procedures and legal advice; changes in impact equity (what is a fair distribution of impacts across the community).

Most of the impacts mentioned above are not relevant for infrastructure projects in the Netherlands, and are therefore not assessed. However, impacts on 'workload and viability of government/non-government and formal/informal agencies' are usually included in SCBA studies.

Category 7: Indicative Gender Relations Impacts
This category includes impacts as: changes in women's physical integrity (the right of women to be able to make their own decisions about their body, health and sexual activity, pregnancy etc.); changes in personal autonomy of women (level of independence, self-respect and self-reliance); gendered division of production-oriented labor, household labor and reproductive labor (unequal distribution of workload between women and men); gender-based control over, and access to, resources and services; changes in equity of educational achievement between boys and girls; changes in political emancipation of women (women's influence on decision making).

Gender issues are not included in any of the impact assessment studies used for infrastructure projects. Arts (PC, 13 February, 2014) states that the Dutch government is just not convinced of the relevancy of gender issues in relation to infrastructure projects. However, at policy level, there seems to be a stronger tendency towards gender and equity issues. A main instrument used for gender mainstreaming of government policies is the Gender Impact Assessment (GIA). Nevertheless, with only twenty five GIA's having been conducted since its introduction in 1994, the instrument does not seem to be that successful (TEP & CEPS, 2010b, p.140).

6 Conclusion, Recommendations and Reflection

In the previous chapter, the SIA framework was used to analyze the Dutch government's efforts to predict and manage social impacts of infrastructure projects. Based on this analysis, this final chapter formulates a conclusion for this study. This conclusion is also the answer to the central question that was drawn in the first chapter of this thesis: *To what extent does SIA play a role in Dutch infrastructure project management?* In section 6.1 this question and the three sub-questions of this thesis are answered. Together, these answers form this study's conclusion. Section 6.2 consists of several recommendations from the researcher regarding potential improvements in the Dutch impact assessment and management system. In the final section (6.3), the researcher looks back at the research process and discusses his own actions. The section also provides suggestion for follow-up studies.

6.1 Conclusion: central question and sub-questions
In this section the three sub-questions and central question of this study are answered.

Sub-question 1: What laws and regulations are practiced by the Dutch government regarding infrastructure projects in the Netherlands?
The most important Dutch laws with regard to infrastructure projects are the Infrastructure Act (*Tracéwet*), the Environmental Management Act (*Wet Milieubeheer*) and the General Administrative Law Act (*Algemene wet bestuursrecht*). The Infrastructure Act prescribes the standard procedure that ought to be followed by the government for all infrastructure projects. Among other things, it provides clear instructions with regard to: what information should be collected during every step of the procedure; public involvement in the decision making process; what information should be available to the public; when and what impact assessment studies should be conducted; and timeframes for decision making.
The Environmental Management Act prescribes the procedure for the Environmental Impact Assessment, the main Dutch impact assessment study that's mandatory for infrastructure projects. It also prescribes what information should be included in an Environmental Impact Report (EIR), the report that follows from the EIA study. The General Administrative Law Act is not specifically infrastructure project related, but is important because it details the rules for public involvement. These include rules for public participation, public accessibility of government documents, and public appeal.

Sub-question 2: How does the Dutch government manage social impacts of infrastructure projects?
The Dutch government does not use a Social Impact Assessment study to assess and manage social impacts of infrastructure projects. Although this implies that there is not a specific focus on social issues, it does not mean that they are ignored entirely. Instead, the government makes use of three impact assessment tools that cover a select range of social impacts. The first of which is the Environmental Impact Assessment (EIA) study. Although used in most countries as merely a method to predict impacts on nature and biodiversity, the Dutch EIA study also includes impacts on health, safety, well being, cultural heritage, mobility and accessibility, and aesthetic quality of the environment. Since the relevant impact of these parameters differs for every project, the EIA is not a standard procedure, but rather a custom made instrument. The EIA study is mandatory for all infrastructure projects and is therefore a very important tool in Dutch impact assessment.

The second assessment tool is the Social Cost-Benefit Analysis (SCBA). Mandatory for most infrastructure projects, the SCBA estimates the socio-economic effects of a project on a national scale. Among others, the study includes impacts on employment, labor market, housing conditions, land- and

property values, income levels, livability, safety, social cohesion, education, and health. However, the study has two important downsides. The first is that it aims to quantify all effects monetarily. Although this is not problematic for some (economic) aspects, some of the above mentioned social aspects are less easy to quantify in euros. Consequently, the latter are often underrated in the study's results. The second downside is that a project's impacts are predominantly estimated on a national scale. Therefore the effects on local communities often remain underexposed. So, although the method is one of the main tools for impact assessment in the Netherlands, its ability to fully assess social impacts is questionable.

The third tool is public participation. This method is twofold, consisting of formal and informal public participation. The former is legally required for all infrastructure projects and encompasses two opportunities for the public to respond to a particular project. Formal participation is characterized by its informational tone: the government informs citizens about its plans, but leaves little room for discussion. Informal participation, on the other hand, is known for its open-communication style. Although not mandatory, informal participation is an important tool to predict and manage social impacts. During workshops, design- and discussion sessions, and group meetings, both citizens and project developers have the opportunity to express their ideas and concerns. When successfully managed, informal participation can be very useful for signaling, reducing or even preventing potential social impacts.

Sub-question 3: To what extent do the Dutch laws and regulations, and the Dutch government's management of social impacts of infrastructure projects, fit into the SIA framework?
In the previous chapter (5), current Dutch regulations and impact assessment tools of infrastructure projects were analyzed by means of the SIA framework. The three main aspects in the framework were: the SIA process, SIA core values and principles, and the seven essential social impact categories.

Many of the activities that are part of the SIA process are also carried out by the Dutch government. However, not all of them are legally determined. This implies that project developers have a decent amount of freedom in their actions. Because not all projects require the same method, this policy freedom of project developers, and their ability to judge which method should be used under particular circumstances, can be an advantage. However, placing so much responsibility on the project developer also has its downsides. Some will be more capable of correctly judging the situation than others. Especially with regard to the choice of using informal public participation, misjudgments can have severe consequences (lack of public support, lawsuits, implementation delays). Failing to make use of informal participation methods also means that an important tool for assessing social impacts is left out.

Though current Dutch legislation and the SIA process are largely compatible, there are notable differences. First, cultural aspects, which receive much attention in SIA studies, are not a dominant factor in Dutch impact assessment. This is partly because the Dutch government believes in equality of all its citizens, regardless of cultural background; and partly because cultural differences in the Netherlands are not that extreme. Second, most activities in the fourth phase of the SIA process (see Chapter 5) are absent in Dutch impact assessment and management. According to Arts (PC, 13 February, 2014) and Wouda (PC, 21 February, 2014) this is characteristic for Dutch project management: as soon as implementation has been completed most impact assessment and participation activities are dropped. This implies that most efforts are concentrated in the phases before and during project implementation. It also implies that the Dutch government predominantly sees impact assessment and participation as a means to achieve its goals, and not so much as a goal itself.

Most of the SIA core values are included in the Dutch Constitution, and are therefore of significant influence on all activities and policies carried out by the Dutch government. However, since many of the SIA principles are excessive in relation to Dutch infrastructure project management, they are not fully detailed in Dutch legislation. Certain SIA principles, including aspects of cultural diversity and community empowerment, are not of great importance with regard to impact assessment activities around infrastructure projects. The (perceived) importance and relevance of other principles differs for each project and, even more, for each project developer.

The seven social impact categories, as described in Chapter 2 and Chapter 5, are considered to include most relevant social impacts. The Dutch government considers some of these impacts, yet others remain unrecognized by Dutch law. Social impact categories that are generally considered during infrastructure projects are impacts on (physical) health and social well-being, livability (safety, noise, housing quality, mobility, leisure facilities etc.), and economy and material well-being (employment, income levels, access to public goods, education, etc.). These impacts are analyzed in at least one of the three impact assessment tools (EIA, SCBA and public participation).

However, more than half of the social impact categories are barely recognized by the Dutch government in relation to infrastructure projects. Social impact categories that receive little or no attention are cultural impacts; family and community impacts; institutional, legal, political and equity impacts; and gender relations impacts. These categories are either considered irrelevant in relation to infrastructure projects (family and community impacts; institution, legal, political and equity impacts), considered irrelevant in the Netherlands (cultural impacts), or underestimated (gender relations impacts).

Returning to the sub-question, we can conclude that, overall, Dutch regulations and impact assessment activities fit adequately within the SIA framework. Many aspects of the SIA philosophy are included, notwithstanding that some are stronger represented than others.

Central question: To what extent does SIA play a role in Dutch infrastructure project management?
The answer to this central question can be derived from the answers to the sub-questions above. We can conclude the following:

- Social Impact Assessment (SIA), as defined in Chapter 2, is not used by the Dutch government, so it does not play a direct role in Dutch infrastructure project management. However, aspects of SIA are used in Dutch impact assessment methods.
- Social aspects are not the main focus of Dutch impact assessment activities during infrastructure projects. This became evident through analysis of Dutch legislation (whereby the phrase 'social impacts' is rarely found), and through in-depth interviews with government officials (who were rather unfamiliar with the term 'social impacts').
- Analysis, monitoring, and management of social impacts in the Netherlands are neither labeled as, nor organized in, an SIA. These three activities are not part of one single impact assessment study, but are instead scattered over three impact assessment tools: Environmental Impact Assessment (EIA), Social Cost-Benefit Analysis (SCBA) and Informal Public Participation. For assessing social impacts, these tools have the following shortcomings in comparison to SIA:
  1. Although the most accurate in assessing social impacts, EIA usually includes only a select range of social impacts.

2. Although SCBA addresses many social impacts, the method can hardly be seen as a substitute for SIA. Its focus is misplaced on national scale impacts and quantifiable impacts.

3. Informal Public Participation (IPP), although a (potentially) good method to address social impacts, is not mandatory. This offers project developers certain discretion in using informal public participation, which causes a great uncertainty in Dutch' social impact assessment. That is, if IPP is not used, an important social impact assessment tool is left out.

The relatively modest role of SIA in Dutch infrastructure project management is surely the result of many interrelated factors. Although it goes beyond the scope of this study to explore all these underlying causes, it's rather interesting to take a closer look at some of them.

- SIA is more than just an impact assessment study: it is a philosophy aimed at creating a better and more sustainable world. It is not merely an instrument to assess impacts, but rather an ideology that stands for the protection and empowerment of communities in need. For the Dutch government, however, impact assessment is largely used as an instrument to create public support and to justify its own actions. It's a means to achieve its goals, not a goal in itself. The introduction of a full-fledged SIA is considered unnecessary by the Dutch government, since several social aspects are already included in current impact assessment tools.
- In line with its philosophy of protecting and improving the lives of society's worst-off members, SIA has a strong focus on human rights and inequality. In the Netherlands, however, such issues are not overly apparent. Human rights are generally well guaranteed in the Netherlands. The country is affiliated with several international treaties that protect human rights and has a solid legislative system that safeguards these rights (Amnesty International, 2014). Particularly surrounding infrastructure projects, human rights are a negligible factor. In addition, inequality is not a major issue in the Netherlands, as general opinion regards socio-economic disparities as mild and gender inequality as nonexistent. However, Arts (PC, 13 February, 2014) argues that inequality issues are not entirely absent in the Netherlands, but rather that the government tends to turn a blind eye to them. "It's something we would rather not talk about. Because we believe that all citizens are equal in this country. But I'm not sure if that's actually true."
- Dutch culture may be another factor influences the lack of SIA in infrastructure project management. The idea that all Dutch citizens are equal makes it difficult to address social differences. It's a sensitive topic that the Dutch government apparently tries to avoid. Arts (PC, 13 February, 2014): "We can't have normal discussions about these kind of issues." An example of this awkward attitude is expressed by the Dutch right-wing PVV political party. They refuse the idea of a multi-cultural society, but there alternative is to get rid of all immigrants and refugees. There seems to be no middle ground (Arts, PC, 13 February, 2014).

6.2 Recommendations

The previously discussed conclusions of this study showed that Social Impact Assessment plays a relatively modest role in Dutch infrastructure project management. However, whether or not this is a negative outcome, is an interesting point of discussion.

Although current Dutch infrastructure project management and impact assessment legislation does hardly include all the aspects of a true SIA, the question is whether it's necessary to include these aspects under Dutch circumstances. In fact, the Dutch spatial planning and impact assessment system is

already quite extensive. Although lacking a specific focus for impacts on the lives of people, it does seem to cover these social impacts that are important in a country like the Netherlands. Introducing an actual Social Impact Assessment would probably be inefficient in the context of the Netherlands. Its additional aspects (human rights impacts, community empowerment, cultural impacts, etc.), as compared to the aspects that are already covered by the current system, would probably be irrelevant.

However, in improving its planning and impact assessment system the Dutch government can still learn from SIA. Bases on this study, and with regard to improving the assessment of social impacts of infrastructure projects in the Netherlands, a few recommendations can be made to the Dutch government.

First, stricter guidelines and rules should be drawn in relation to informal public participation (IPP). IPP is an important tool in assessing social impacts, but is not mandatory in the Netherlands. In the current situation, project developers have too much policy freedom in deciding whether or not IPP is necessary in a certain situation. Although not every project requires an intensive participation process, and therefore some discretion is necessary, there should be clearer rules as for what kinds of infrastructure projects demand informal public participation methods. These rules could for example relate to the project's size and duration. Introducing clearer guidelines for these factors in relation to the use of IPP could bring more structure in the decisions of project developers. For very large and long lasting projects installing legal requirements for IPP might be worth considering.

Second, IPP activities should be extended to the post implementation phase. In the current situation, these activities usually stop after project implementation. This implies that IPP is merely used as a means to achieve public support. However, IPP should also be used in evaluating the actual social impacts of the project. By continuing the dialogue with citizens even after the project is implemented, the government can create a trust relationship with its people that can be useful during future projects. Also, by gathering information about the actual impacts of a project, the government can learn from its own actions and therewith improve its project management strategies.

Third, EIA activities should be extended to the post implementation phase. Although the Infrastructure Act prescribes that a follow-up test (evaluation of impacts) should be conducted after project implementation, in practice this rarely happens. Consequently, much valuable information (actual impacts? Efficiency of mitigation measures?) goes to waste. Therefore there should be stricter supervision on the project developer's compliance with the law. Failing to conduct a follow-up test shouldn't go without suitable consequences for the project developer. Also, the findings of such a follow-up test should be included in the Environmental Impact Report (EIR) and be presented to the EIA Commission. In the current situation the Environmental Management Act prescribes that these findings should be part of a separate document.

Fourth, the Social Cost Benefit Analysis (SCBA) should be reconsidered and improved. In its current form, with its focus on quantifiable and national scale impacts, the SCBA is not a very suitable method for assessing social impacts.

Fifth, the difference between environmental and social impacts should be clearer demarcated in legislation. In the current situation, impacts on people are not signified as 'social impacts'. Instead, they are included under the term 'environmental impacts'. By using the label 'social impacts', government officials might become more aware of the importance of the human factor in impact assessment. Although some social aspects are part of the current impact assessment tools, their inclusion seems to

be rather coincidence than truly intended. This is probably best expressed in IPP. Although an excellent tool to assess social impacts, its primary goal seems to be merely creating public support, and not assessing social impacts. Laying more emphasis on social impacts in legislation might spread the current strong focus on environmental impacts to a more combined focus (both social and environmental). This could intensify the assessment of impacts on people and therefore contribute to an improved Dutch infrastructure impact assessment system.

Sixth, and related to the previous recommendation, government officials should be made more aware of the importance of social impacts. This could, as earlier discussed, be achieved through clearer signification of social impacts in legislation; but also through education, or for example the introduction of a handbook for social impacts.

6.3 Reflection

In this section the researcher critically reflects on the conducted study. The last part of the section provides several suggestions for follow-up study.

Due to time and resource restrictions the researcher had to make some influential decisions during the research process. These decisions have been essential for the outcomes of this study and are therefore worth mentioning.

First, the researcher decided to only focus on infrastructure projects. Initially, the researcher had the intention to study the role of Social Impact Assessment in all sorts of government projects. However, because this proved to be extremely time consuming and overambitious, the researcher decided to limit himself to infrastructure projects. Important for this decision was the fact that (most) infrastructure projects are nationally coordinated and therefore set up along a standard procedure. This made it easier for the researcher to generalize his results and conclusions. Furthermore, all infrastructure projects legally require an impact assessment study (environmental and socio-economic). The latter was essential for the researcher to be able to make a comparison between the SIA literature and Dutch infrastructure impact assessment methods.

The decision to focus merely on infrastructure projects has surely had its consequences for this study's results. That is, the outcomes of this research might have been different when other types of projects were included, for example housing projects.

Second, the researcher decided to only focus on infrastructure projects initiated by the national government. This decision was mainly made because including all government levels would have been too time consuming. Also, by leaving out provincial and municipal governments, the researcher tried to keep a clear and straight forward story line.

However, focusing only on infrastructure project on the national scale might have influenced the outcomes of this study. During the interviews conducted for this study, it became clear that lower governments usually have a closer relationship with citizens. They are often better aware of what goes on in local communities and are therefore better able to signal (potential) social issues. The inclusion of provincial and governmental governments might therefore have led to different research outcomes.

Third, the researcher decided to conduct three in-depth interviews at three different government agencies: the Dutch Ministry of Infrastructure and Environment, PBL Netherlands Environmental Assessment Agency, and Rijkswaterstaat. The number of interviews was partly influenced by time

restrictions, and partly by the amount of information that was gathered during each interview. The latter made the researcher decide that three interviews was a sufficient number. This was mainly due to the fact that two of the interviews each involved three participants. The particular agencies were chosen because of their strong relation to infrastructure projects and impact assessment.

The limited number of interviews and the choice for these particular agencies might have consequences for this study's representativeness. However, the researcher considers the chosen agencies of core importance in relation to Dutch infrastructure projects and impact assessment. Furthermore, the interviews were predominantly meant as an addition to the main research method, which was literature study.

For follow-up research it would be interesting to see whether the outcomes of this study also apply for infrastructure projects carried out by lower governments. Also, comparing the impact assessment procedures for infrastructure projects with these of other types of government projects would be an interesting research topic. Furthermore, it would be relevant to compare the outcomes of this study with infrastructure project management activities carried out by governments in other countries. Finally, it would be worth studying the differences between infrastructure projects carried out by the government and projects carried out by private companies.

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Appendix

Interviewguide

Dit interview is opgebouwd uit 3 delen. Ik zal het interview beginnen met een introductie waarin ik wat algemene vragen stel. Vervolgens ga ik meer specifiek in op de gang van zaken rondom ruimtelijke projecten. De nadruk ligt daarbij vooral op hoe er door de Nederlandse overheid wordt omgegaan met sociale gevolgen van dit soort projecten. Het derde deel van het interview bestaat uit een afsluitende vraag.

Introductie

1. Wat is uw naam?

2. Hoelang bent u al werkzaam voor X?

3. Hoe lang houdt u zich al bezig met de ruimtelijke ordening in Nederland?

4. Hoe heeft u deze werkzaamheden ervaren?

5. Hoe zou u het Nederlandse systeem wat betreft ruimtelijke ordening beoordelen?

Sociale gevolgen van ruimtelijke projecten

Identificatie van gevolgen

Ruimtelijke projecten hebben vaak gevolgen voor de omgeving waarin zij worden uitgevoerd. Er kan sprake zijn van gevolgen voor het milieu, voor de economie, maar ook voor het dagelijks leven van mensen.

6. In hoeverre brengt de Nederlandse overheid, voorafgaand aan de uitvoering van een ruimtelijk project, de (mogelijke) gevolgen van een dergelijk project in kaart?

7. In hoeverre houdt men daarbij rekening met gevolgen op de lange termijn?

8. En in hoeverre wordt hierbij aandacht besteed aan sociale gevolgen? (bijvoorbeeld: zie lijst met social impacts)

Identificatie van gebieds- en bevolkingskenmerken

9. In hoeverre worden, voorafgaand aan de uitvoering van een ruimtelijk project, specifieke kenmerken van een projectgebied in kaart gebracht? En hoe wordt dit gedaan?

10. En in hoeverre wordt hierbij aandacht besteed aan sociale kenmerken? (bijvoorbeeld: zie lijst met variabelen voor social impacts)

11. Wordt er van te voren onderzoek gedaan naar wat er speelt onder mensen die in en rond het projectgebied wonen, werken en leven? Bijvoorbeeld, hoe zien zij hun toekomst? Hoe zien zij de toekomst van het gebied?

12. Wordt er van te voren in kaart gebracht hoe verschillende bevolkingsgroepen verschillend kunnen reageren op het project?

13. Het kan zijn dat de overheid een project wil uitvoeren in een gebied waar een soort gelijk project in het verleden veel weerstand onder de plaatselijke bevolking opriep. Wordt er in het besluitvormingsproces rekening gehouden met deze ervaringen uit het verleden?
En zo ja, hoe speelt men daar op in?

Publieksparticipatie

14. In hoeverre worden burgers en andere belanghebbenden betrokken bij de besluitvorming rondom ruimtelijke projecten? (Zowel voorafgaand, tijdens en na het project)

15. Denkt u dat dit voldoende is?

16. In hoeverre worden burgers en andere belanghebbenden betrokken bij het ontwerp van ruimtelijke projecten?

17. Denkt u dat dit voldoende is?

18. In hoeverre hebben burgers de mogelijkheid om alternatieven voor een maatschappelijk ongewenst project aan te dragen?

19. In hoeverre wordt er door de Nederlandse overheid nadat het project is afgerond nog aandacht besteed aan de daadwerkelijke impact die het project heeft op de omgeving?

Afsluiting

Social Impact Assessment, het concept dat centraal staat binnen mijn scriptie, is min of meer de sociale variant van de Milieu Effect Reportage. In plaats van te kijken naar gevolgen voor het milieu, wordt er bij SIA puur gekeken naar de gevolgen voor de mens.

20. Waarom denkt u dat er in Nederland geen gebruik wordt gemaakt van SIA, of een variant daarop? (te duur, gelooft men er niet in, is het niet nodig, is er een gebrek aan kennis?)