The opportunities of Social Impact Assessment (SIA) for projects in the Multi-Year Programme for Infrastructure, Spatial Planning and Transport (MIRT)

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Content

Summary

This study identifies the opportunities of *Social Impact Assessment* (SIA) for projects in the *Multi-Year Programme for Infrastructure, Spatial Planning and Transport* (MIRT). The study also explored how SIA could be implemented in the MIRT process. MIRT projects are projects and programs in which the national government collaborates with regional governments to work on the spatial planning and design in the Netherlands. The Ministry of Infrastructure and Water Management (IenW) is always part of a MIRT project. The MIRT process consists of four phases: MIRT Study, MIRT Exploration, MIRT Plan Elaboration and MIRT Realisation.

SIA is a process that aims to analyse, monitor and manage the social impacts of planned interventions. Social impacts are all changes related to a planned intervention that affect or concern people. SIA not only measures social impacts, it also aims to manage social impacts by informing decision-making. This aims to reduce the negative social impacts, increase the positive social impacts and have better community acceptance of the planned intervention. This can lead to a reduction of conflicts and project savings. There is not one official way to execute SIA. There are multiple SIA standards and guidelines available, which all allow for adjusting SIA to specific contexts and purposes.

SIA is not the same as Environmental Impact Assessment (EIA), although both aim to inform decision makers about the impacts of the planned intervention. SIA and EIA can include similar types of impacts, like air quality, noise pollution and water quality. But, since SIA analyses social impacts from the perspective of people, the results of the SIA can be different from the EIA in which impacts are assessed from the perspective of nature and not people. Besides, SIA can also include other impacts that are not in EIA, like the impact on tourism and employment opportunities.

This study specifically analysed the opportunities of SIA for regional MIRT projects in the modality 'main roads' in densely populated areas. First a literature review was conducted. Next, four MIRT projects were analysed based on existing documents and semi-structured interviews with eight managers and staff of IenW, in order to get insight in the MIRT process and social impacts in MIRT projects. The four MIRT project cases under analysis are *MIRT Study Utrecht after 2030, MIRT Exploration River Crossings Rotterdam, MIRT Plan Elaboration N65 Vught-Haaren* and *MIRT Realisation A16 Rotterdam*.

The study shows that SIA offers multiple opportunities to reduce negative social impacts, to increase the positive social impacts and to reach better community acceptance of the MIRT projects. This can lead to less conflicts and more project savings. The first way in which SIA can improve the MIRT process regarding social impacts, is that SIA can broaden the scope of social impacts assessed in the MIRT process. SIA will not only assess impacts based on monetary and environmental terms, but will analyse every relevant change in residents' lives as result of the project. SIA will also not only consider residents' opinion on already developed designs, but will look into the desires and interests of residents from the beginning of the project. SIA will also assess the hindrance during the construction of the project. Another way in which SIA can improve the handling of social impacts in MIRT projects, is that SIA will not only take residents into account who are present in participation processes, but also the residents who are not. Having not all residents represented in the participation process is considered a challenge in MIRT projects. By identifying and analysing all affected people at the start of the project and by not only organising participation but also measuring and calculating social impacts, insight can be created in the social impacts on all residents. A third improvement that SIA can offer MIRT projects, is that SIA can support the dialogue between different involved government organisations, because SIA can help identifying the scope of impact assessment and the agreement on it. Last, SIA can improve the MIRT process by assessing social impacts during the entire MIRT process. This means that also in the MIRT Study social impacts are assessed, which is currently not done. Also,

it means that a follow-up assessment after project completion of social impacts will be added to the MIRT process.

There are multiple decisions that have to be made in order to implement SIA in the MIRT process. One decision is about the degree of standardisation and flexibility of SIA is desirable in the MIRT process. It is concluded that all MIRT projects are different and therefore interviewees suggest that there should be some flexibility to adjust SIA to the context of a specific MIRT project and that there thus should not be one strict standard for all MIRT projects. But the exact way in which this flexibility should be implemented needs further research. Another decision that needs further analysis, is the decision about having SIA executed by an external independent party or by the MIRT project team itself. An external party can ensure objective assessment, but having SIA conducted by the MIRT project team might be more efficient as the MIRT project team is expected to already understand the project and can directly change aspects in the project. The last decision is about whether SIA should be implemented within EIA or as separate assessment process. SIA originally emerged along the development of EIA, and from that moment on there are different movements that advocate the integration or separation of SIA and EIA. Further research should identify what configuration is most suitable for the MIRT process.

Independent of how SIA is actually implemented in the MIRT process, the success in handling social impacts depends on the commitment to dealing with social impacts. Especially the weight social impacts have in decision-making will eventually determine how successful negative social impacts are mitigated, positive social impacts are increased and community acceptance is created in the project.

1. Introduction

Social impacts are all changes related to a planned intervention that affect or concern people. Social impacts include everything that is experienced to be a relevant change for a specific group of people (Vanclay, Esteves, Aucamp, & Franks, 2015). Disagreement about the distribution of the social impacts of a planned intervention can lead to conflicts between individuals, groups, parties and institutions (De Groot, 2020).

In order to prevent conflicts and improve the design of the planned intervention, Social Impact Assessment (SIA) can be used (De Groot, 2020). SIA can be defined as *"the processes of analysing, 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"* (Vanclay et al., 2015, p. 4). SIA thus not only measures the social impact, but also involves the process of managing social impacts during the entire project or policy timespan (Vanclay et al., 2015).

Conflicts can be avoided and the design of the planned intervention can be improved, because SIA can support the minimization of the negative social impacts and the maximization of the positive social impacts (Vanclay et al., 2015). SIA can help to minimize negative social impacts, because SIA allows affected people to understand, participate and cope with a planned intervention. In addition, the design of the planned intervention can be improved by undertaking SIA, because SIA helps to identify opportunities to maximize positive social impacts of the planned intervention. The insight in local knowledge that is created by SIA allows the planned intervention to be adapted to local characteristics, which can support the successful implementation of the planned intervention. Besides, SIA can reduce conflicts because SIA can build consensus, communal ownership and community acceptance of the planned intervention, by including views, interests and values of affected people in decision-making (Takyi, 2014). Using SIA can significantly improve decision-making, which eventually can lead to project implementation savings because negative impacts can be reduced and the project can be better accepted by residents (Becker & Vanclay, 2003).

SIA is used in different contexts and for different purposes all over the world. SIA can be used by companies, NGOs and governments, based on own initiative or on regulatory or funding requirements (Vanclay, 2003). The international financial institutions, like the World Bank, the International Finance Corporation (IFC), and the larger multilateral and bilateral development banks, require SIA before investments are made and therefore they have set guidelines for this (Vanclay, 2020; Vanclay & Hanna, 2019). Also the banks that follow the Equator Principles, which is a risk management framework adopted by financial institutions for assessing and managing environmental and social risks (Vanclay & Hanna, 2019), are following procedures that require SIA (Vanclay, 2020). In the Netherlands, the ING, ABN and Rabobank are part of the Equator Principles banks (De Groot, 2017). Both the international financial institutions and the Equator Principles bank expect SIA to be undertaken, in order to assess risks to the lender and as expected management practice of the borrower (Vanclay, 2020). Besides, some countries have legislative instruments in place to guide SIA processes (Takyi, 2014). First, in the 1970s, SIA became mandatory in North-America and Australia. Later, SIA became also mandatory for specific cases in France, Italy and Spain (Aan de slag met de omgevingswet, n.d.-c). In some Western countries SIA is made obligatory for government actions (Becker, 2001).

In the Netherlands, SIA is thus required by banks that are linked to the Equator Principles and some bigger companies are using SIA on their own initiative (Aan de slag met de omgevingswet, n.d.-c), but the Dutch governments do not have legislations that require SIA and are not using SIA. In 2017, on request of the *Nationaal Platform Burgerparticipatie Omgevingsprojecten, Lerend platform Energie en*

Omgeving and several governments, a report was written about the actions that need to be taken when SIA would be used in the Netherlands, following the Performance Standards of the IFC. The report concludes that SIA can effectively help with social acceptance of decision-making and describes some practical implications of using SIA in the Netherlands (De Groot, 2017).

In short, social impacts are relevant to take into account to avoid conflicts in complex planned interventions (De Groot, 2020). SIA is worldwide used by different organisation (Vanclay, 2003) to prevent conflicts and improve the design of the planned intervention (De Groot, 2020). Research showed that SIA might be beneficial for planned interventions in the Netherlands. Therefore the Dutch Ministry of Infrastructure and Water Management (IenW) wants to analyse what SIA has to offer for the infrastructural interventions they are planning. Infrastructural projects are most of time capital intensive, significant in scale, extensive in duration and complex in nature due to controversies over facts and values (De Groot, 2020), which implies that SIA might be useful to improve the process and outcomes of the planned infrastructural interventions.

IenW conducts different types of projects, but for the scope of this research it is decided to specifically analyse the opportunities of SIA for regional MIRT projects in the modality 'main roads' in densely populated areas. MIRT stands for Multi-Year Programme for Infrastructure, Spatial Planning and Transport ('Meerjarenprogramma Infrastructuur, Ruimte en Transport'). MIRT includes projects and programs in which the national government collaborates with regional governments to work on the spatial planning and design in the Netherlands (Ministerie van Infrastructuur en Milieu, 2016). The criteria based on which it was decided to choose this type of IenW projects will be elaborated in paragraph 2.2. The research question thus is: *"what has SIA to offer for IenW regional MIRT projects in the modality 'main roads' in densely populated areas?"*

In order to determine what SIA has to offer for regional MIRT projects from the modality 'main roads', first a literature review on SIA was conducted. Next, insights from four MIRT project cases in practice will be generated, which will give insight in the way MIRT projects are undertaken and in the ideas about social impacts of the people working on the MIRT projects. The four MIRT project cases that are analysed are the *MIRT Study Utrecht after 2030, MIRT Exploration River Crossings Rotterdam, MIRT Plan Elaboration N65 Vught-Haaren* and *MIRT Realisation A16 Rotterdam*. When the SIA theory and insights of the MIRT project cases are combined, conclusions will be drawn on what SIA has to offer for IenW and where SIA could be placed in the MIRT process.

Context

This analysis is conducted on request of the *directorate for Public Participation* ("directie Participatie", DP) from IenW. IenW is obliged to improve quality of life, access and mobility in a clean, safe and sustainable environment. The responsibilities of the ministry are roads, railways, waterways and airways, water management and improved air and water quality (Ministry of Infrastructure and Water Management, n.d.-a). Within IenW, the DP works on the collaboration between society and the government. In order to let society participate in IenW decision-making processes, the DP works on the inclusion of policy makers, citizens, companies and societal organisations in governmental projects and policies (Ministry of Infrastructure and Water Management, n.d.-b).

Abbreviations and translations

While conducting this research, multiple terms and concepts were abbreviated and translated from Dutch to English, especially terms and concepts used by governments. Therefore Appendix A – List of Abbreviations. Appendix B is added to give an overview of used translations.

2. Methodology

Three main steps are taken to answer the research question. First, a literature review is conducted. Second, insights from MIRT projects in practice are generated based on existing documents and interviews. Lastly, the outcomes of the first two steps are combined in an analysis of what SIA can offer for MIRT projects.

2.1 Literature review

The literature review covers two topics: [1] an overview of the general SIA concept, standards, methods and processes applicable to governmental projects in the Global North and [2] the relation between SIA and Environmental Impact Assessment (EIA).

The literature about both topics is searched following the Systematic Literature Review (SLR) methodology. SLR is *"a systematic, explicit, and reproducible method for identifying, evaluating, and synthesizing the existing body of completed and recorded work produced by researchers, scholars and practioners"* (Okoli & Schabram, 2010, p. 4). Next, the literature found about topic 1 is analysed as in a traditional background literature review and not following further steps of the SLR, because this information will serve as background for further empirical study, give theoretical context and justify decisions for further research design (Xiao & Watson, 2019). Literature about topic 2 is analysed following further steps of the SLR methodology, because this requires a more elaborate analysis of the existing literature by aggregation, interpretation and explanation (Okoli & Schabram, 2010).

First, the SLR is planned by developing a review protocol, which includes search strings, databases and criteria for including and excluding literature (Creswell, 2014; Kraus, Breier, & Dasí-Rodríguez, 2020). Considering that the SLR is an iterative process, it might occur that some protocol steps are updated when more knowledge about the topic is generated (Creswell, 2014; Kraus et al., 2020; Leavy, 2017; Okoli & Schabram, 2010).

Two search strings are defined. The first search string aims to cover a general SIA overview and the relation between SIA and EIA. The second search string aims to cover experiences with social impact in context similar to IenW. The search strings are:

1. *(Social Impact) AND (Assessment OR Measurement OR Method OR Indicator),*
2. *(Social Impact) AND (Netherlands OR Europe OR Infrastructure OR Implementation OR transport).*

The search strings are used in in online databases *Scopus* and *Science Direct*. To limit the amount of literature found, the search strings are only searched in the article title. The literature is included in the SLR if it meets the following requirements:

- **The literature describes at least one of the three main topics,** as defined earlier.
- **The literature is applicable to the context of IenW,** which is regional, governmental SIA in the Global North. This requirement is set because the SIA process is depending on contextual factors (Vanclay, 2012). If literature does not explicitly describe the context, the literature can be included. But if literature specifically focusses on SIA for enterprises or SIA in the global South, the literature is excluded.
- **The article is written in English or Dutch**, because these languages are understood by the researcher. Since this research focusses on the usefulness of SIA for the Dutch IenW, also literature written in Dutch is included.
- **The article is fully available for a TU/e student**, so that the researcher can access the full article.
- **The article is a peer reviewed journal article or grey literature (for example government reports, committee reports, conference proceedings and standards).** Peer reviewed journal articles are

reviewed through the academic process and therefore generally accepted as a high-quality source (Kraus et al., 2020). Grey literature can be defined as *"publicly available, foreign or domestic, open source information that is usually available only through special channels and may not enter normal channels or systems"* (Benzies, Premji, Hayden, & Serrett, 2006, p. 56). Grey literature will be included because SIA is a complex intervention with a complex outcome that is influenced by context (Vanclay, 2012), which requires the more practical documents that can be found as grey literature (Benzies et al., 2006). Besides, SIAs are not strongly embedded in academic literature, and thus more often published as grey literature (Barrow, 2002).

- **The article is published between January 2000 and October 2020.** In this way, the number of included literature is reduced and only the latest insights on SIA are included, which ensures that the research question will be answered with most recent insights. It is decided to include literature from 2000 on, because the assessment of social issues became mainstream around that time, although there are variations between sectors and some resistance (Vanclay, 2020).

Next, the review is conducted based on the review protocol. Key word string 1 resulted in 675 literature items in Scopus, and 118 literature items in Science Direct. Key word string 2 resulted in 154 literature items in Scopus, and 49 literature items in Science Direct. Allowing the inclusion of relevant literature that found outside the research protocol, resulted in adding five extra documents. To determine if a document should be included in the literature review or not, the literature found is first analysed based on its title and keywords. If it is then still unclear if an article should be included or not, also the abstract is assessed. Next the introduction and conclusion section and finally the full text is used to determine the usefulness of the article (Kraus et al., 2020).

When the list of literature to include in the SLR is defined, information is extracted from each literature item to address the earlier defined topics. For topic 1 this is done as in a traditional background literature review and for topic 2 this is done following the SLR methodology. The SLR is concentrated on the concepts, rather than the authors and their studies (Kraus et al., 2020). Based on the concepts, the literature review is reported. The literature computer program Mendeley is used to order all articles.

Although the methodology for this literature review is based on academic literature, it is possible that there are aspects of SIA that are not found with this literature review. The study therefore is limited to the literature that is found by the described steps.

2.2 Insights from MIRT projects in practice

In order to create insight in the way MIRT projects are currently handling social impacts and see what could be improved, the complete MIRT process is analysed. To get a better understanding of the MIRT process in practice, four MIRT projects are analysed in more detail as a project case study. This paragraph first describes how the four MIRT project cases are selected, after which the methods used to analyse the MIRT project cases are described.

2.2.1 Selection of the MIRT project cases

The four MIRT projects *Utrecht after 2030, River Crossings Rotterdam, N65 Vught-Haaren* and *A16 Rotterdam* are selected to analyse in more detail. The projects are selected based on multiple selection criteria, which will be elaborated upon in this paragraph. Table 1 shows how the selected MIRT project cases meet the selection criteria.

The four projects are selected based on the following criteria:

a. Only projects will be analysed, policies will not be included.

This decision is made because projects are often more tangible than policies and therefore the impact of projects is expected to be measured more easily than the impact of policies (Barrow, 2002). It is expected that this makes talking about social impacts within the project easier than for policies, which is desirable since this is explorative research.

b. The selected projects are MIRT projects.

MIRT projects are the main type of projects IenW undertakes. All MIRT projects follow the same procedure that is well documented, which makes the projects suitable for analysis.

c. Each selected MIRT project is in another phase of the MIRT process.

All phases of the MIRT process are analysed, because SIA should be part of each phase of a planned intervention (Barrow, 2002; Becker, 2001; Becker & Vanclay, 2003; Vanclay, 2003). Ideally finished projects would analysed that are able to reflect upon past steps in the MIRT process, but since MIRT projects can take more than a decade (Ministry of Infrastructure and Water Management, 2018), it will not be practical to interview people that worked on the project ten years ago, because they are likely to be hard to find, there is the possibility that they do not know all details of their work on the project anymore and it is possible that the legislations guiding at that time have changed. Therefore it is decided to analyse four different projects that today are each in another phase of the MIRT process. The four phases that are distinguished in the MIRT process are: *MIRT Study, MIRT Exploration, MIRT Plan Elaboration and MIRT Realisation* (Ministry of Infrastructure and Water Management, 2018).

d. Included MIRT projects all belong to modality 'main roads'.

In the MIRT Overview that describes all IenW projects that are budgeted for the coming year, it can be found that between 2019-2021, most budgeted regional projects belong to the modality main roads (Ministerie van Infrastructuur en Waterstaat, 2020). Focussing on this modality will thus give insight in most conducted projects at IenW.

e. MIRT projects included in the analysis are of regional scale.

The MIRT Overview distinguishes regional and national MIRT projects. It is decided to select regional projects, because it is found in easier to assess social impacts in smaller-scale issues (Barrow, 2002), so it is expected that it is easier to talk about social impacts in regional projects than in national projects, which is desirable in this explorative research.

f. The MIRT projects are all operating in a densely populated area in the urban environment

The urban context in which the MIRT projects operate is expected to influence the handling of social impacts. It is expected that it is more challenging to deal with social impacts when more people live around the project area. Therefore it is expected that people working on MIRT projects in a densely populated area can tell more about social impacts than people working on MIRT projects in less densely populated areas. Since it is desirable that interviewees can tell as much as possible about social impacts, MIRT projects operating in densely populated areas will be included in the analysis.

g. Selected projects have the duty to assess whether an Environmental Impact Assessment (EIA) ("milieueffectrapportage" (m.e.r.)), should be conducted ("m.e.r. –beoordelingsplicht").

EIA assesses the environmental impact of projects. EIA is already required in specific cases in the Netherlands, including most MIRT projects (Commissie voor de milieueffectrapportage, n.d.). It is

expected that environmental impacts often are also social impacts. When a project is obliged to check whether they should undertake the EIA, it is likely that social impacts are also interesting to analyse within the projects. This makes the projects with the duty to assess whether EIA should be conducted interesting to analyse for this research about SIA.

h. The selected MIRT projects all explicitly stated in the MIRT overview 2021 that they aim to improve the liveability of the area.

It is expected that projects that explicitly state that they aim to improve the liveability, already have to take the social impacts of the project into account. This implies that those projects are likely to have experience with handling social impacts of the project.

i. The selected MIRT projects are constructing completely new infrastructure in the area and not solely broadening existing roads.

It is expected that existing roads that get an extra lane have less social impact than projects that are developing new infrastructure, for example a new road, new tunnel or new river crossing point. Therefore projects that are constructing new infrastructure are chosen for the case analysis, since those projects are more likely to have experience with social impacts.

	Utrecht after 2030 Utrecht na 2030	River Crossings Rotterdam Oeververbindingen Rotterdam	N65 Vught-Haaren N65 Vught-Haaren	A16 Rotterdam A16 Rotterdam	Criteria met
a. Case is a project, not a policy	✓	✓	✓	✓	✓
b. Case is a MIRT project	✓	✓	✓	✓	✓
c. Each project in in another phase of the MIRT process	MIRT Study	MIRT Exploration	MIRT Plan Elaboration	MIRT Realisation	✓
d. MIRT project falls under the modality 'main roads'	The modality is undefined in the MIRT Study, but it considers all modalities including main roads	✓	✓	✓	✓
e. MIRT project is of regional scale	✓	✓	✓	✓	✓
f. The MIRT project is in an urban environment	Project within and around the city Utrecht	Project within the city Rotterdam	Project on road through villages Vught, Haaren, Helvoirt	Project at the border of Rotterdam and surrounding villages like Cappelle aan de IJssel	✓
g. MIRT project has duty to assess whether EIA should be conducted	Undefined, because project is MIRT Study	EIA obligatory	Duty to assess whether EIA is needed, EIA turned out to be not obligatory	EIA obligatory	✓
h. In MIRT overview 2021 the project stated that it aims to improve the liveability of the area	Project aims to sustain the liveability, health and accessibility in the region by responding to the growth of the population and the amount of jobs in the region	Within the five main project goals, there is the goal to improve the urban liveability and to increase the opportunities for people (improving the accessibility of jobs)	Project challenge is to improve liveability: noise, air quality, traffic safety, cut-through traffic and decrease the barrier between the two sides of the road	The new road aims to improve both the capacity and the quality of the living environment.	✓
i. MIRT project is constructing new infrastructure	Unknown, since project is a MIRT Study, but constructing new infrastructure is not excluded as possible solution	The MIRT Study already showed that broad list of infrastructural solutions could help to reach the project goals. One of those considered solutions is new multimodal River Crossings across the Nieuwe Maas.	Preferential Decision ('Voorkeursbeslissing') includes: new intersections in Helvoirt and Vught, a bicycle tunnel and two ecoducts	The solution that will be implemented is a new road of 11 kilometres.	✓

Table 1- Overview MIRT project cases and how these meet the case selection criteria (Ministerie van Infrastructuur en Waterstaat, 2020)

2.2.2 Analysis of the MIRT project cases

Explorative analysis is used to describe how IenW is currently handling the social impacts of regional 'main road' MIRT projects and what could be improved. This explorative analysis is qualitative, because it aims at exploring and understanding the meaning people ascribe to the current situation in an inductive manner (Creswell, 2014; Leavy, 2017). The two data sources that are simultaneously analysed are: [1] interviews with people who are working on the four selected MIRT project cases and [2] existing documents about the four selected MIRT project cases and the related processes. Those two data sources and the methods to analyse those data sources are now elaborated upon, after which the qualitative validity and reliability of this analysis is described.

Interviews

Interviews with people who work on the four selected MIRT project cases are conducted in order to get insight in the way those people see social impacts in the MIRT projects. Two people are interviewed in each of the four selected MIRT project cases, to ensure that multiple perspectives on each project are heard. A total of eight interviews is thus conducted.

The interviewees are selected based on purposeful sampling, which means that the people who are expected to give most relevant information for the study are interviewed, because this will result in the best data to answer the research question (Leavy, 2017). First the project manager, assistant project manager or contract manager of each project were selected as interviewees, because it is expected that those managers have a more general overview of the project and can place the social impacts of the project in the context of the whole project. Then snowball sampling is used to identify the second person to interview in each project, which means that the selection of the first interviewees leads to the selection of the next interviewee (Leavy, 2017). In other words, the first interviewee selected were asked who else working on their MIRT project could give more insights about the social impacts of the project. Table 2 shows the interviewees and their characteristics. All interviewees work at least half a year at the MIRT project, most of them more than two years. It is expected that the interviewees thus work long enough on the project to tell their experience in the MIRT phase they are currently working on. The interviewees are employed by different organisations to work on their MIRT project, based on which it is expected that the interviews give a broad perspective on social impacts in the projects.

MIRT Project phase	MIRT Project case	Function of interviewed person	Works on project since	Employed by
MIRT Study	Utrecht after 2030	Project manager	2018	IenW ('projectenpool')
		Project manager content '*contour integraal Ruimtelijk Perspectief (REP)*' that collaborates with the MIRT Study Utrecht after 2030	2018	U16 (16 collaborating municipalities in Utrecht)
MIRT Exploration	River Crossings Rotterdam	Assistant project manager	2018	TwynstraGudde (consultancy company)
		Stakeholder relationship manager ('omgevingsmanager')	2019	TwynstraGudde (consultancy company)
		Project manager	2015	Municipality Vught

MIRT Plan Elaboration	N65 Vught-Haaren	Stakeholder relationship manager	2020 (April)	Province Noord-Brabant
MIRT Realisation	A16 Rotterdam	Contract manager	2012	Rijkwaterstaat
		Communication manager in stakeholder relationship team ('omgevingsteam'))	2013	Rijkswaterstaat

Table 2- Overview of interviewees

The interviews are inductive, open-ended and in-depth. The interviews are semi-structured, which allows interviewees to provide long and detailed responses and go in any direction they want in their response (Leavy, 2017). Interviewees thus can tell about anything that is relevant for managing social impacts in their MIRT project, even if the research protocol did not identify a topic beforehand, which is possible since this is explorative research. An interview guide is developed that describes the basic interview protocol, including the main questions that are asked (Creswell, 2014; Leavy, 2017). The interview guide is defined based on the literature review in step 1 and the IenW documents also collected in the explorative analysis. The interview guide does not directly ask how the interviewees see social impacts within their project and what they think SIA could offer, but aims to ask questions related to these topics. This decision is made because it is expected that the interviewees might not be fully conscious about the social impact and SIA concepts, but can tell about their experience with residents in their projects. Since conducting and analysing interviews is an recursive process (Leavy, 2017), the interview guide is updated based on new insights generated after the first four interviews were conducted. Some questions were deleted because the answers seemed not relevant for answering the research question and one final question was added that asked more directly about what interviewees would think about implementing SIA. The final interview guide can be found in Appendix C.

The interviews were conducted via online video calls or by phone. Each interview took around one hour, the longest duration was 1 hour and 9 minutes and the shortest duration was 54 minutes. The interviews were recorded, after which the audio records were transcribed. Only the relevant parts of the records are transcribed, which means that the parts are left out in which interviewees repeat themselves or explain things that are not generating insights that help answering the research question. This approach comes with the risk of losing information early in the process (Leavy, 2017), but since all interviews are conducted and transcribed by the same researcher, the researcher has heard all information at least twice and thus is able to select the parts that can be left out of the transcription.

Next, the coding of the interviews is supported by the qualitative computer data analysis program NVIVO 12 Pro. First, all interviews are read to generate a first idea about the data. Next, a preliminary codebook is defined that includes the basis of codes with a description about the content of each code. The preliminary codebook aims at keeping the coding system consistent (Creswell, 2014). Next, the codes are categorized in seemingly related codes. Based on this, main themes are defined, which can be an extended phrase that describes the larger meaning behind a code or category of codes. Meanwhile, memos are written that describe the first interpretations of the data (Leavy, 2017). If necessary, the codebook might be improved during coding and interviews can be recoded following the improved codebook, since coding is an iterative process (Creswell, 2014; Leavy, 2017).

Existing documents

Besides the information generated with the interviews, existing documents about the MIRT process and MIRT project cases will be used to retrieve more information about the processes of the MIRT project cases. The documents used are publicly available and can be found on the websites of IenW and the specific MIRT project cases.

Qualitative validity and reliability

The qualitative validity of this step is based on determining whether the researchers, interviewees or readers would define the analysis as accurate. The qualitative validity of this step is strengthened in multiple ways. Using two data sources, interviews and existing documents, ensures that all aspects are covered. A rich and thick description of the results will give many perspectives about a theme to make the results realistic. By also presenting negative or discrepant information, insight is generated in the complexity of real life, which increases the validity (Creswell, 2014).

The qualitative reliability describes the consistency and stability of the research findings. This can be warranted by documenting as many steps of the research procedures as possible, so small mistakes are detected and others can follow the procedure. This means for example checking transcripts precisely so that no obvious transcription mistakes are made and documenting the coding process precisely so that changes of code definitions are clear (Creswell, 2014).

2.3 Drawing conclusions: how to implement SIA at IenW in a value adding way?

In this last step, the insights from the literature review in step 1 are combined with the insights from the MIRT project cases in practice from step 2. Based on this, a final analysis is done on what SIA has to offer for MIRT projects and how SIA could be implemented in the MIRT process.

3. Literature Review

This chapter will give insight in existing literature. Paragraph 3.1 will give a general overview of SIA. Next, paragraph 3.2 will discuss the relation between SIA and EIA.

3.1 General SIA Overview

The general SIA overview in this paragraph aims to give insight in the international development and current status of SIA literature, by explaining the definition of SIA, the brief history of SIA, the usage of SIA today and the indicators, process and methods used when conducting SIA. Therefore the literature included in this review is written in a general context and thus applicable to the MIRT projects.

3.1.1 Definition of SIA

The literature works with different definitions of SIA. These will not be discussed in this report, but instead a commonly used definition will be discussed in order to get basic understanding of what SIA is. Following the often used definition of SIA by the International Association for Impact Assessment (IAIA), SIA can be defined as *"the process of analysing, monitoring and managing the unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions"* (Vanclay et al., 2015, p. 1). This definition underlines that SIA not only includes an analysis of social impacts, but also the monitoring and managing of social impacts. SIA therefore should be undertaken during the whole project time span, starting before decisions are made (Barrow, 2002; Becker, 2001; Becker & Vanclay, 2003; Vanclay, 2003). In this way, the SIA findings have the opportunity to influence the decision-making during the entire project (Barrow, 2002) and mitigation measures can be implemented to minimise the harm and maximise the benefits of the planned intervention (Burdge et al., 2003; Vanclay, 2003). Besides, the definition points out that SIA focusses on both the positive and negative social impacts. A planned intervention is never fully positive or fully negative, since there is a differential distribution of the positive and negative social impacts among the affected community. People can benefit and be harmed by the planned intervention at the same time (Vanclay et al., 2015).

SIA is not a synonym for public participation. SIA is an analytical process aiming to influence decision-making and management of social issues, which requires community engagement, allowing the community to influence the management of social issues. Public participation, is most of time statutory regulated as the requirement to inform the public and allow them to comment on planned interventions, which often results in an attempt to legitimate the planned intervention while limited attention is paid to the perceptions of the public (Vanclay et al., 2015). This difference between SIA and public participation will be taken into account when it is analysed what attention IenW is already paying to social impacts of their projects. Knowing the difference will help to say which attempts of dealing with social impacts that are currently used fit with the SIA methodology and which not.

3.1.2 SIA Usage Today

Today SIA is used in different contexts and for different purposes all over the world. Most of time SIA is undertaken in planned projects, but SIA also allows the impact assessment of policies and legislations (Becker, 2001). SIA can be used by companies, NGOs and governments, based on own initiative or on regulatory or funding requirements (Vanclay, 2003). The International Financial Institutions and Equator Principles banks all require SIA before investments are made (Vanclay, 2020), and are setting standards for SIA (Vanclay et al., 2015). Some countries have legislative instruments in place to guide SIA processes; for example Canada and the U.S. (Takyi, 2014). In some Western countries SIA is made obligatory for government actions (Becker, 2001). So, SIA is applicable in multiple contexts and for multiple purposes, including governmental actions. This confirms that there might be opportunities to use SIA in MIRT projects as well.

The different contexts and purposes for conducting SIA resulted in different ways to conduct SIA, because all SIAs are adjusted to fit the context and purpose of that specific SIA (Arce-Gomez, Donovan, & Bedggood, 2015; Esteves, Franks, & Vanclay, 2012; Vanclay, 2003). This led to a debate about the extent towards which SIA guidelines should be flexible or standardized. Proponents for flexible SIA guidelines argue that the flexibility is needed to allow for practical application of SIA processes, allowing practioners to choose the most suitable process and methods (Arce-Gomez et al., 2015; Becker, Harris, Nielsen, & McLaughlin, 2004; Vanclay, 2003). Another argument for flexibility in SIA, is that SIA standardization might lead to less quality of SIA, because the standardization might be used by non-experts as a checklist instead of having a proper SIA process (Vanclay, 2002). On the other hand, standardization of SIA guidelines is advocated, because standardization of the SIA process is seen as important to guide practioners through the process (Arce-Gomez et al., 2015). Besides, standardization of SIA is argued to help achieving consensus among results from different studies and will help consolidating knowledge and generalizing results of individual studies (Bonilla-Alicea & Fu, 2019).

Different documents describing the state of the art and best practices of SIA have been developed over the years, each developed as response to unease about the already existing SIA literature (Esteves et al., 2012). Despite the lack of consensus in the SIA literature, different organisations defined the state of the art, best practices, guidelines and standards for SIA; *the International Association for Impact Assessment (IAIA)* (Vanclay, 2003), the US *Interorganizational Committee on Guidelines and Principles (ICGP)* (The Interogranizational Committee on Guidelines and Principles for Social Impact, 1994) and *the International Finance Corporation* (Esteves et al., 2012) all made documents for this. On top of that, a range of books and articles are written by different authors to give guidelines for conducting SIA (Arce-Gomez et al., 2015). In addition, different authors aimed at including a specific focus in conducting SIA (Arce-Gomez et al., 2015); for example focus on risk management (Esteves, Factor, Vanclay, Götzmann, & Moreira, 2017; Mahmoudi, Renn, Vanclay, Hoffmann, & Karami, 2013), human rights (Esteves et al., 2017; Götzmann, Vanclay, & Seier, 2016) and conflict management (De Groot, 2020; Prenzel & Vanclay, 2014).

So, there is not one way of conducting SIA, since multiple SIA standards and guidelines are available that IenW could use when deciding to include SIA in their processes. All standards and guidelines allow for adjusting the SIA process for the specific context and purposes, which offers the opportunity to adjust SIA so that it fits with the context of MIRT projects. When it is decided to use SIA in MIRT projects, the question is whether SIA for MIRT projects should be standardized or more flexible, following the debate found in literature.

3.1.3 How to Conduct SIA

Although there is no defined consensus about how to undertake SIA, literature shows some general aspects of SIA that will now be discussed to give an insight in what social impact indicators, processes and methods mean when decided to undertake SIA.

Social Impact Indicators

Although there are different definitions of 'social impact' available, most SIA practioners will accept the following definition: *'a 'social impact' is a significant or lasting change in people's lives brought by a given action or actions'* (Barrow, 2002, p.188). Which social impacts are relevant and how they should be weighted might differ between places, context, projects and communities (Vanclay, 2002). Since social impacts are everything that is relevant for people and how they live, SIA cannot start with a checklist of social impacts. Social impacts must thus be identified from an awareness of the project and project stakeholders. (Vanclay et al., 2015). Different authors developed different lists that classify social impacts (Vanclay, 2002). The IAIA classified social impacts in their latest SIA guidance document as changes to one or more of the following: people's way of life, their culture, their community, their

political systems, their environment, their health and wellbeing, their personal and property rights and their fears and aspirations (Vanclay et al., 2015). The flexibility in which social impacts to include in SIA offers MIRT projects the option to undertake SIA with social impact indicators that are relevant to their project context and scope.

SIA Process

The process for conducting SIA is defined by different authors in different ways over the years (Arce-Gomez et al., 2015). Arce-Gomez et al. (2015) developed a consolidated framework for the SIA process based on available literature about the SIA process, with the ICGP *Guidelines and Principles for Social Impact Assessment* as basis for their new framework. The eight steps that were identified to comprise the SIA process are:

1. Screening and planned interventions to identify if an SIA is necessary,
2. Developing profiles of the communities which may be impacted,
3. Scoping the potential impacts that might be caused by a planned intervention,
4. Assessing the significance of the predicting impacts,
5. Formulating alternatives for the planned intervention,
6. Creating mitigation and enhancement strategies and developing a plan to manage social impacts,
7. Monitoring of social impacts,
8. Management plans and evaluation.

The framework can be found in Figure 1. As seen in the figure, the SIA process is not a linear process, but allows going back and forth between the steps in the process (Arce-Gomez et al., 2015).

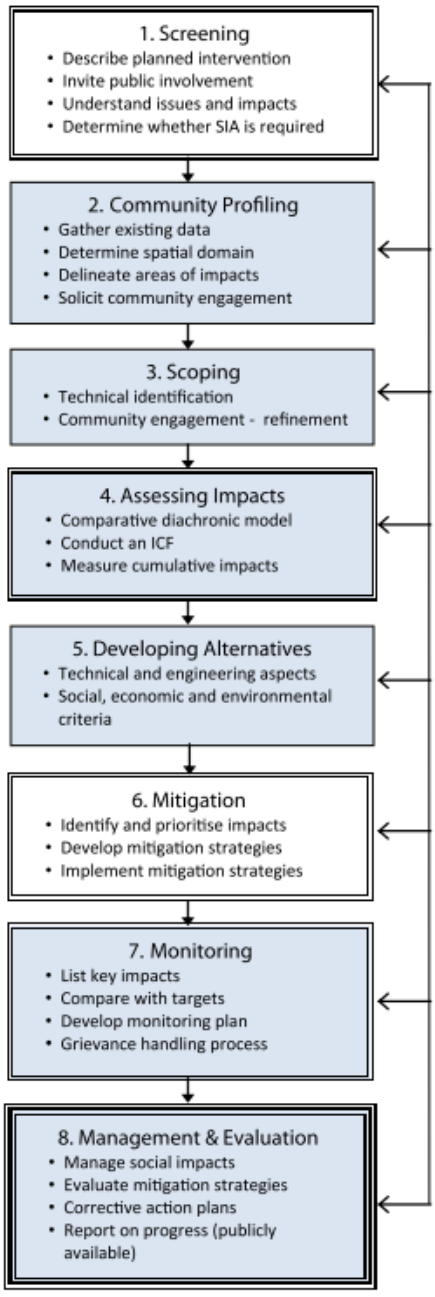

Figure 1 Consolidated framework fort he SIA process (Arce-Gomez et al., 2015)

As discussed before, there is not one official SIA process that IenW needs to follow, since SIA allows to adjust the process to the context and purpose. But, in order be able to analyse SIA offers for MIRT projects, this consolidated framework will be used. It is decided to work with the consolidated framework in the analysis, because this summarizes available processes, so most aspects of the SIA process will be included. This fits with the explorative aim of this study to see what SIA has to offer for IenW. Defining which SIA standard to use at IenW is another questions that follows when this explorative study shows that SIA can be useful for IenW. So by basing the analysis in this research on the consolidated framework, more options that the SIA process has to offer due to its flexibility can be included in the analysis, compared to already suggesting one specific SIA standard to base the analysis on.

SIA Methods

Different tools and methods are available to include in the SIA process. There is no predefined set of methods to use for identifying social impacts (Becker et al., 2004). Which methods are used in SIA

depend on *"the stage of the process, the type of data, availability and quality of the data, time, financial and logistical resources"* (Takyi, 2014, p. 220). Commonly used methods are: expert opinion, consultations and questionnaires, checklists, spatial analysis, matrices, carrying capacity analysis and modelling. Key of each set of methods chosen to include in SIA is community consultation, because this aims to get insight in the opinion of the community (Takyi, 2014). Again, this flexibility in the SIA method allows to match the SIA process with the specific needs of social impacts in IenW projects and processes.

3.2 How does SIA relate to EIA?

Now that the SIA concept is described, this paragraph will elaborate on the relation between SIA and EIA. EIA is a process that aims to identify and predict the potential environmental impacts of proposed actions, policies, programs and projects (Barrow, 2002; Suopajärvi, 2013; Vanclay, 2004). The EIA is used to communicate the environmental impacts to the decision makers before they make decisions (Barrow, 2002; Suopajärvi, 2013; Vanclay, 2004). EIA encourages decision makers to 'look before they leap' (Barrow, 2002) which results in better decision-making that eventually saves money because the negative project impacts are reduced and there is more project acceptance (Becker & Vanclay, 2003). So, both SIA and EIA aim to inform decision makers about the impacts of the planned intervention beforehand. The difference between SIA and EIA is that SIA assesses the social impacts and EIA the environmental impacts. Most MIRT projects are obliged to undertake EIA, so therefore it is interesting to see how SIA relates to EIA.

Social impacts and environmental impacts often include similar types of impacts. Impacts like air quality, noise pollution, water quality and soil pollution can be addressed in both SIA and EIA. However, the way those impacts are assessed differ between SIA and EIA. Since SIA assesses social impacts as they are perceived by people, SIA often results in different findings than the EIA that measures those impacts without taking the experience of people in mind. Besides, SIA can include other social impacts that are not included in EIA, like for example the influence of the project on tourism, employment opportunities and culture history (De Groot, 2017). Another difference between SIA and EIA is that SIA should assess the social impact earlier in the project process than EIA should assess environmental impacts. This is because other than environmental impacts, social impacts can occur from the moment that there are changes in social conditions, so from the moment the project is anticipated, because from that moment on people can have emotions related to the announced project (Becker & Vanclay, 2003).

When the first SIA was developed, this occurred as part of EIA development in the 1970s (Arce-Gomez et al., 2015; Esteves et al., 2012; Vanclay, 2018, 2020; Vanclay et al., 2015), because the assessment of social impacts became part of environmental legislation in the USA (Vanclay, 2006). Later SIA and EIA were separated into two separate fields of impact assessment. Today, there are new attempts to integrate SIA and EIA. One common form of an integrated SIA and EIA framework is Environmental and Social Impact Assessment (ESIA). There is no consensus among SIA practioners about whether SIA should be practiced separately from, as part of, or equally integrated with EIA (Antonson & Levin, 2020; Barrow, 2002; De Groot, 2017). Since most MIRT projects are already obliged to undertake EIA, it will be interesting to see how SIA fits with the current process of conducting EIAs in MIRT projects. If it is decided to undertake SIA in the MIRT process, a decision has to be made about the position of SIA in relation to EIA. This paragraph aims to give insight in the arguments for and against the different options of this positioning. The literature included in the paragraph has either no specific context to which the literature applies or the literature is written in the context of the Global North.

3.2.1 From SIA as part of EIA, towards two separate approaches

When SIA first emerged in the 1970, SIA was part of EIA as result of new environmental legislation in the USA (Vanclay, 2006). The degree in which social impacts are assessed in EIA depends on the way environmental impacts are defined (Becker & Vanclay, 2003; Dendena & Corsi, 2015; Larsen, Hansen, & Nielsen, 2018; Vanclay, 2004). If environmental impacts assessed in EIA are defined as all impacts on the environment, including both social and biophysical impacts, there is attention for social impacts, but this depends on the specific EIA (Vanclay, 2004).

Undertaking SIA as part of EIA became criticized for several reasons, which led to separating SIA and EIA as a practice as impact assessment fields. The first reason for splitting up SIA and EIA, is that the consensus arose that social impacts occur in a different way than environmental impacts and require different mitigation strategies (Vanclay, 2020). In addition, the approach and amount of weight allocated to SIA in regular EIA was criticized (Antonson & Levin, 2020; Corsi, Oppio, & Dendena, 2015; Dendena & Corsi, 2015; Vanclay, 2004). As a result, SIA and EIA developed as different field of impact assessment as a method in their own right, comparable and compatible with each other (Vanclay, 2004).

3.2.2 Integrate SIA and EIA as both being equally acknowledged

As a result of the movement to separate SIA and EIA, environmental and social impact assessment have operated in separate realms (Becker & Vanclay, 2003). Over the years, the desires and attempts have grown to integrate SIA and EIA as being both equally important (Becker & Vanclay, 2003), so that SIA is no longer a subordinate in the EIA process (Corsi et al., 2015). The original integration in which SIA is part of EIA already received the critique that SIA was subordinate to EIA (Dendena & Corsi, 2015). According to the proponents of the equally integrated SIA and EIA, the separation of SIA and EIA still resulted in SIA being subordinate to EIA (Dendena & Corsi, 2015), and therefore the new equally integrated approach was developed.

A promising framework that integrates SIA and EIA equally, is ESIA (Corsi et al., 2015). The ESIA definition that is most agreed upon is: "*Environmental and Social Impact Assessment (ESIA) is a comprehensive document of a project's potential environmental and social risks and impacts. An ESIA is usually prepared for greenfield developments or large expansions with specifically identified physical elements, aspects, and facilities that are likely to generate significant environmental or social impacts"* (Corsi et al., 2015, p. 2216). The development of equally integrated SIA - EIA frameworks started for various reasons.

The first reason to consider social impacts along with environmental impacts is that those impacts are seen as interrelated (Barrow, 2002; Corsi et al., 2015; Dendena & Corsi, 2015; Domínguez-Gómez, 2016). *"Some social impacts are caused by biophysical changes, and some biopsychical impacts are caused by the social processes that occur because of social impacts"* (Vanclay, 2004, p. 277). Becker and Vanclay (2003) introduce the concept of 'human impacts' to explain the interrelation between social and environmental impacts. They define that all impacts are human impacts, but that there are differences in the pathways in which impacts arise. Some human impacts arise due to changes in the social settings, some human impacts arise due to changes in the biophysical setting. Therefore they argue that the biophysical and social environment should not be separated in impact assessment (Becker & Vanclay, 2003).

Another reason to integrate SIA and EIA is that this allows for more social learning by the project proponent than would be when SIA and EIA were separated. More social learning will lead to more successful project implementation (Burdge, 2003). The participatory processes of SIA can be beneficial for the EIA process when SIA and EIA are integrated (Burdge, 2003). The SIA process can inform EIA

whether environmental degradation might occur or whether conservation efforts might be successful, by using regional knowledge (Barrow, 2002). In addition, the social learning in the integrated approach can avoid social and environmental conflicts, which reduces the direct, indirect and social costs of conflict management (Corsi et al., 2015).

Besides, integration of SIA and EIA often makes the logistic operation of the assessment process more manageable and efficient. Two separate assessment processes might be more difficult to operate than one integrated assessment process (Dendena & Corsi, 2015; Vanclay, 2004).

Another benefit of integrating SIA and EIA is based on the fact that EIA often already is legally required, as is the case in the Netherlands. Since EIA already has legal mandate, SIA can piggy-back on EIA to achieve greater consideration (Vanclay, 2004).

The equally integrated SIA and EIA approach is also criticized. One downside of integrating SIA and EIA is that although it is already used by different institutions and agencies, there is a lack of scientific foundation and scientific publication (Corsi et al., 2015). There is some grey literature about ESIA in case studies, but the opportunities and limits of ESIA are not widely discussed in literature, especially not compared to the big amount of literature about SIA and EIA (Dendena & Corsi, 2015). Another critique on ESIA is that the integration may lead to less attention to the social or environmental aspects (Dendena & Corsi, 2015). This is the same critique that the option in which SIA is part of EIA and the option of separating SIA and EIA also received.

3.2.3 What does this imply for MIRT projects?

The different options to position SIA in relation to EIA show a development from first having SIA as part of and subordinate to EIA based on legislation, to SIA being separately and complementary to EIA, to SIA being strictly necessary in ESIA (Corsi et al., 2015). However, there is no consensus about the optimal configuration of SIA and EIA, since all three options have arguments for and against. One main concern for all three options to position SIA in relation to EIA, is the potential of SIA being ignored and being subordinate to EIA. Whether this is because of lack of weight to social impacts when SIA is part of EIA, or because SIA can be ignored if separated from EIA, or because social impacts being subordinated in terms of all the other things that need to be considered in an equally integrated SIA and EIA framework, for each option there is the concern that social impacts become subordinated to the environmental impacts (Vanclay, 2004).

Vanclay (2004) suggests that there is no easy answer to this concern. In any way, neither option for positioning SIA in relation to EIA will succeed if there is no commitment to the attention for social impacts. Vanclay (2004) suggests that the commitment to social impacts within each option is perhaps more important than the decision about the option to pick itself.

So when deciding about positioning SIA to EIA, there should be awareness for the commitment to the social impacts, so that the social impacts cannot become subordinate to the environmental impacts. Since this holds for every option, the options should be thoroughly analysed in order to see which options fits best for the MIRT projects.

4. Empirical Analysis

The analysis of the interviews and existing documents is structured into three topics: [1] the current place of social impacts in the MIRT process, [2] challenges in the MIRT process and [3] where to implement SIA in the MIRT process. Per topic, the results of the analysis of documents and interviews will be presented and analysed by combining the empirical results with the findings of the literature review.

4.1 Current place of social impacts in the MIRT process

This paragraph will first give an overview of MIRT process, after which each MIRT phase is explained in more detail. Per phase an description and analysis will be given of the key tasks and attention paid to social impacts, and the project cases will be introduced in more detail. Next, the awareness of social impacts among the project team members is analysed. This paragraph ends with a conclusion about how the MIRT process is currently considering social impacts.

4.1.1 Overview of the MIRT process

MIRT projects are projects in which the national government and regional governments collaborate in order to improve the competitiveness, accessibility and liveability of the Netherlands. IenW is always part of each MIRT project. In addition, other departments and regional partners can be participating or responsible for the MIRT projects as well, like provinces, municipalities, Regional Transport Authorities ('Vervoerregio's') and District Water Boards ('Waterschappen'). The involved parties define a common goal, which combines national challenges for infrastructure, flood risk management and liveability, which are the responsibilities of IenW, with regional challenges like the spatial-economic development of an area. By combining efforts in working on governmental challenges on both the national in regional level, there is aimed for a better result (Ministry of Infrastructure and Water Management, 2018).

Key point of attention in the MIRT process is 'adaptive planning'. Since the projects can take more than one decade, it is considered necessary to start on time with the project plan. On the other side, society is in constant change and the future can be insecure. To deal with this dilemma, the MIRT decision-making is adaptive, which allows for more flexibility so that governmental agencies together define the scope of the solutions and take step by step decisions about the final solution (Ministry of Infrastructure and Water Management, 2018). The MIRT process therefore is based on funnelling and transparency; start with a broad challenge, and by transparent decision-making there is worked towards a feasible project. The MIRT process consists of four different phases: MIRT Study, MIRT Exploration, MIRT Plan Elaboration and MIRT Realisation. At the end of each phase, the involved governments decide which challenges and solutions they are going to work on in the next phase, and how each partner will contribute to these tasks (Ministry of Infrastructure and Water Management, 2018).

Key decisions about the MIRT projects are made in the MIRT Consultation Committee ('Bestuurlijk Overleg MIRT', BO) where IenW, decentral governments and other involved parties decide about starting MIRT Study and MIRT Exploration and about the ongoing projects and how these should be executed further. The MIRT project team delivers transparent information to base these decisions on. The status of the MIRT projects are yearly documented in the MIRT Overview, which is every year shared by the minister with the House of Representatives ('Tweede Kamer') (Ministerie van Infrastructuur en Milieu, 2016). Starting a MIRT process does not automatically mean that the project has to be completed, it is also possible that based on the information generated by the project team it is decided to stop the project (Ministry of Infrastructure and Water Management, 2018). Figure 2 shows the MIRT project phases and the key decision moments at the end of each phase.

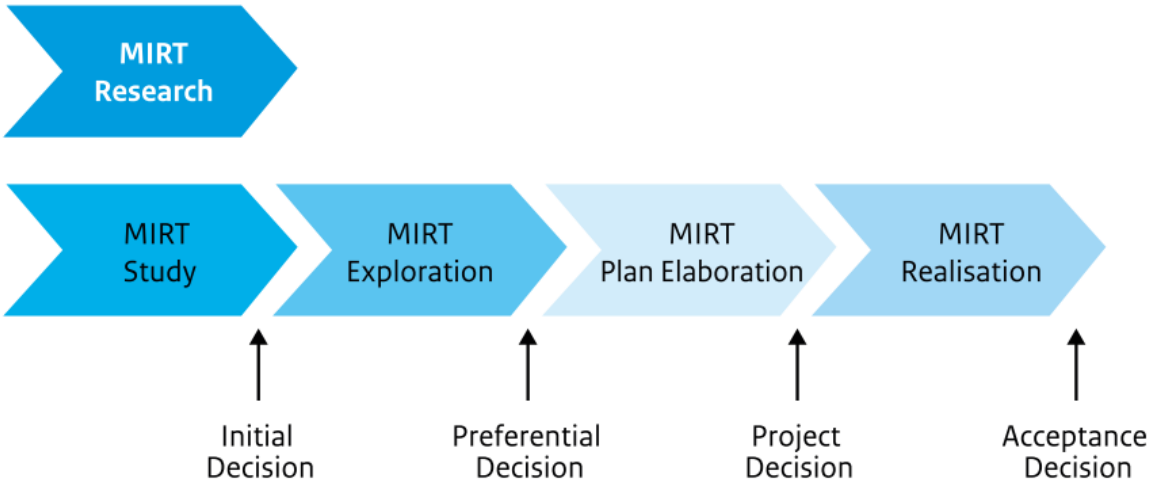

Figure 2 - The MIRT process and key decisions at the end of each phase (Ministry of Infrastructure and Water Management, 2018)

4.1.2 MIRT Study: Utrecht after 2030

MIRT Study is conducted in order to define the challenges in a region in more detail and get insight in the scope and stakeholders. The MIRT Study can be initiated by the national government or a regional government. Others can only suggest a MIRT Study via a governmental agency in the BO. The outcomes of a MIRT Study define whether there is no further action needed on the challenges for now, whether the challenges can be solved without a MIRT procedure and whether the challenges need to be solved with governmental financing that requires a MIRT procedure (Ministerie van Infrastructuur en Milieu, 2016). If a MIRT procedure is considered to be the best solution, an Initial Decision ('Startbeslissing') should be prepared by the project team. The Initial Decision states the central challenges in the MIRT project and the scope of the solutions that can be considered. The Initial Decision also describes the roles, tasks and authorizations each partners in the project has. To make an Initial Decision, it is mandatory that there are clear plans on how to finance 75% of the expected costs of the most likely solution. The project team is free to decide in which way the MIRT Study is executed, because the MIRT Study has a 'free format ('vormvrij'). When the Initial Decision is accepted, the MIRT Exploration can start, which can be seen as the formal start of the MIRT project. (Ministry of Infrastructure and Water Management, 2018).

MIRT Study Utrecht after 2030 is analysed to understand the MIRT Study in practice. MIRT Study Utrecht aft 2030 is part of the program U Ned (Ministerie van Infrastructuur en Waterstaat, 2020), in which multiple partners are collaborating to generate insight in an effective way to respond to the challenges that come with the urbanization of metropolitan region Utrecht (U Ned, n.d.). It is expected that both the population and the number of jobs in the area will grow, which requires an appropriate response to sustain the liveability and health in the region, and guarantee the accessibility of the region. In the MIRT Study 2030 the accessibility of the region is considered, in which all modalities are taken into account (Ministerie van Infrastructuur en Waterstaat, 2020). The interviewees explained that the MIRT Study just finished and the involved governments have agreed on the outcomes. The project team is now identifying the next steps to take so that the MIRT Exploration can start.

In order to get an accord on the Initial Decision from the national government, multiple requirements on the Initial Decision need to be met. Regarding participation, there are two requirements for aspects that need to be part of the Initial Decision. First, the description of the project should include an overview of the interests of involved parties like the national government, regional governments and

other involved stakeholders. A description of which information is needed from who for decision-making needs to be included. Second, information should be included about how the project will consider the Code for Public Participation in the next MIRT phases ('Code Maatschappelijke Participatie'). The Code for Public Participation is the one-pager that states some key points for participation MIRT procedures (Ministerie van Infrastructuur en Milieu, 2014). So, the MIRT procedure requires that the Initial Decisions includes a description of the way stakeholders will be involved in later MIRT phases, on both the level of governments and residents. How this will be exactly organised within the later project phases, is up to the project team to decide (Ministerie van Infrastructuur en Milieu, 2016). So the MIRT Study does require to make plans for stakeholder involvement in later phases, but does not require stakeholder involvement in the MIRT Study itself because the MIRT Study has a free format.

Interviewees explained that for the MIRT Study Utrecht after 2030 this meant that no direct public participation for residents was organised. According to the interviewees, this could happen because participation was not required, the project team did not initiate to include to include participation in their research plan and the involved governments accepted this research plan. No other forms of assessing the interests of residents were identified in the interviews about MIRT Study Utrecht After 2030.

Interviewees described that MIRT Study Utrecht after 2030 aimed to generate input from residents in indirect ways. First, the interviewees explained that the input on the MIRT Study was asked from the involved municipalities and the province. The councillors of the U16, which are all the collaborating municipalities in the province Utrecht, and the province were asked for their opinion about the assessment framework ('beoordelingskader') and starting point memo ('uitgangspunten notitie'). This was identified as participation on governmental level. Another form of participation identified by the interviewees is that when the vision that results from the MIRT Study, should be implemented in the policies of each involved government and therefore each government is advised to organise its own public participation for this. But, this is after the vision is already defined.

Additionally, the interviewees clarified that output of participation processes about the broader program about the future of Utrecht also informed the MIRT Study Utrecht After 2030. First of all, the participation in this broader programme is organised 'getrapt', which means that there is one person responsible for each subtheme that is discussed about the future of Utrecht. That one person organises participation about that theme with officials from each of the U16 municipalities. Per theme it is possible to organise public participation. All the different themes come together to discuss their ideas. Besides, output of the 'Hart voor U Ned' gatherings from the broader U Ned program is also used in the MIRT Study Utrecht after 2030. Everyone interested can join those gatherings, which are held once per three months. At the gatherings, people are informed and can discuss about the U Ned programme. But, one interviewee mentioned that *'honestly, it must be said, but not much people join those 'Hart voor U Ned' gatherings'.*

So in short, the MIRT Study procedure does not require any public participation or attempts to learn about the interests of the residents in the project area. The MIRT Study Utrecht after 2030 did ask input from governments and used outputs of participation in broader programs, but no direct public participation was organised about the MIRT Study Utrecht 2030 and no attempts to learn about the residents in the area were found.

4.1.3 MIRT Exploration: River Crossings Rotterdam

Once the Initial Decision is made, the MIRT project starts the MIRT Exploration. In this phase, the partners search for smart solutions for the challenge of their project. The result of the MIRT Exploration is a Preferential Decision ('Voorkeursbeslissing'), in which a well informed decision is made that identifies the best solution, the legal path to take and the project financing (Ministry of Infrastructure and Water Management, 2018).

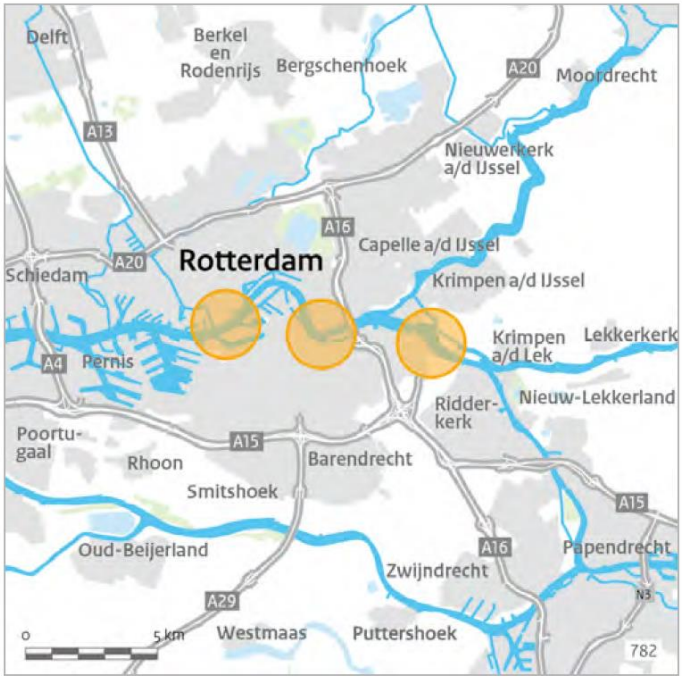

Figure 3- MIRT Exploration River Crossings Rotterdam project location (Ministerie van Infrastructuur en Waterstaat, 2020)

The project under analysis for this MIRT phase is MIRT Exploration River Crossings Rotterdam. The locations that are considered for river crossings in this project are shown in Figure 3. The MIRT Exploration River Crossings Rotterdam works on five project goals: solve bottleneck A16 Van Brienenoordcorridor, solve bottleneck public city transport, urbanisation in relation to increasing agglomeration, increasing urban liveability and increasing the opportunities for people (improving the accessibility of jobs) (Ministerie van Infrastructuur en Waterstaat, 2020). The interviewees explained that at the moment of the interviews the project was in the analytical phase of the MIRT Exploration, which ends with the 'Memo of Promising Solutions' ('Notitie Kansrijke Oplossingen'). Now the project team reviewing the most promising solutions to come to the final decision-making at the Preference Decision.

The Preferential Decision is based on multiple sources of information. A societal cost-benefit analysis (SCBA) is conducted. Besides, it is optional to undertake a business case. In addition, an EIA can be conducted if required or on initiative of the project team, and outcomes of participation are included (Ministerie van Infrastructuur en Milieu, 2016). The Preferential Decision also requires information about the societal support for the Preferential Decision and the alternative options. Besides, a description of the followed Plan for Participation is required, which should follow the Code for Public Participation. The way in which the participation outcomes are considered in the Preferential Decision also needs to be described. Lastly, in the plan for the next phase also a Plan for Participation needs to be included (Ministerie van Infrastructuur en Milieu, 2016). So, the MIRT Exploration requires participation before the Preferential Decision can be made. Besides, the SCBA and EIA assess impacts of the project in terms of money and natural impacts.

The interviewees pointed out that within the project team of the MIRT Exploration River Crossings Rotterdam there is a stakeholder relationship team ('omgevingsteam'), which is responsible for understanding the residents' interests and ensuring that residents bring input into the decision-making. The stakeholder relationship team made a Plan for Participation with the help of participation with residents. The involved governments agreed on this Plan for Participation. The participation forms mentioned in the interviewees used within this MIRT Exploration are newsletters, information nights, joint fact finding and discussion groups. Special attention is paid to the groups of residents that are

often not present at those participation moments. To also get their input, the project teams plans to ask people on the street for their opinion.

MIRT projects do not only require a Plan for Participation, but are also required by law to allow residents to share their *zienswijze* on decisions, which means that residents can respond to a proposed decision or plan as part of a formal public consultation procedure. When *zienwijzen* are handed in, the project team should decide for each *zienswijze* to accept or reject the *zienswijze* and write a response to it. Once this is done, the decision becomes official. MIRT Exploration River Crossings Rotterdam also allowed *zienswijzen* on its Memo of Scope ('Notitie Reikwijdte en Detailniveau'), which states what will be analysed in this phase, even though the option of *zienswijzen* was not required for that memo.

The interviewees mentioned that in the MIRT Study River Crossings Rottterdam no input from residents was asked, which was also the case in the MIRT Study Utrecht after 2030. In the MIRT Exploration River Crossings Rotterdam people could share their ideas about the possible solutions, but the decisions made in the MIRT Study, like the project scope and possible river crossing locations, were not open for public participation. One interviewee from MIRT Exploration River Crossings mentioned that residents were not amused by the fact one possible river crossing location was already excluded from the options in the MIRT Study without involving residents in this decision.

In summary, the MIRT Exploration requires input from residents in the form of developing and following a Plan for Participation and *zienwijzen*. Besides, the SCBA and EIA assess impacts of the project in terms of money and natural impacts. MIRT Exploration River Crossings Rotterdam fulfilled these requirements and is using the outcomes to inform governmental decision-making about the project. Besides, the MIRT Exploration River Crossings Rotterdam is confirming the findings of the MIRT Study Utrecht after 2030 that showed that no direct public participation occurs in the MIRT Study and additionally adds that the lack of direct public participation can lead to incomprehension among residents.

4.1.4 MIRT Plan Elaboration: N65 Vught-Haaren

Once the Preferential Decision is made, the project starts the MIRT Plan Elaboration. In the MIRT Plan Elaboration, the earlier identified solution becomes more detailed, so that the Project Decision ('Projectbeslissing') at the end of the MIRT Plan Elaboration can present a final project design (Ministry of Infrastructure and Water Management, 2018). The interviewees explained that once the Project Decision is made official, the project design is official. From that moment on, the project design cannot be changed anymore, except from really small details like putting a tree a little more to the left, but preferably nothing is changed anymore and the dialogue with residents after the Project Decision is only about hindrance in the MIRT Realisation.

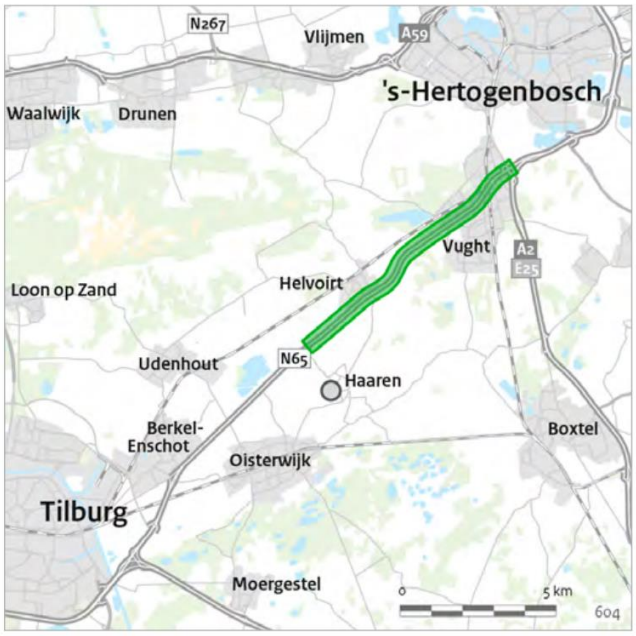

Figure 4- MIRT Plan Elaboration N65 Vught-Haaren project location (Ministerie van Infrastructuur en Waterstaat, 2020)

The MIRT project case under analysis for the MIRT Plan Elaboration is the N65 Vught-Haaren. The area of the project can be found in Figure 4. The main challenge to work on with this MIRT project, as stated in the MIRT overview 2021, is to improve the liveability of the residential areas on both sides of the N65. The liveability considered in this project includes noise, air quality, traffic safety, cut-through traffic and reducing the degree in which the N65 is considered to be a barrier between the two sides of the N65. The Preferential Decision that was made at the end of the MIRT Exploration in 2018, includes new intersections at Vught and Helvoirt, lifting one intersection in Vught, deepening of a part of the N65 in Vught, implementing a new bicycle tunnel, implementing a parallel structure and two new ecoducts (Ministerie van Infrastructuur en Waterstaat, 2020).

In the case of a national trunk road ('rijksweg'), like the N65, the Project Decision is called a *Tracébesluit* (Ministerie van Infrastructuur en Milieu, 2016). Interviewees explained that the MIRT Plan Elaboration N65 Vught-Haaren is currently at the end of the Plan Elaboration and taking the first steps towards a building contractor. It is expected that the first construction work starts in 2021. Residents lodged an appeal ('beroep aantekenen') on the new Zoning Plan ('bestemmingsplan') of the municipality Vught that resulted from project decisions. The final decision about the new Zoning Plan has to be made by the Council of State ('Raad van Staten'), which shows that not all residents agree with the plans for the N65.

Governmental accord on the Project Decision requires, among other things, to have insight in the effects of the different possible solutions. Effects are here defined as effects of the solution on accessibility, traffic safety, water security, water management, living environment (housing, living, nature, and landscape), and usage of the spatial area, water and economy. Additionally, accord on the Project Decision requires a description of the way in which participation outcomes are taken into account in the Project Decision. Further, a Plan for Participation for the next phase should be included, for both governmental and residential level (Ministerie van Infrastructuur en Milieu, 2016).

The MIRT project team for the reconstruction of the N65 also includes an stakeholder relationship manager, who organises the participation. Interviewees specified multiple forms of participation in their MIRT Plan Elaboration N65 Vught-Haaren: *zienswijzen,* stakeholder analysis, conversations with residents, newsletters and information evenings. Besides, also on government level input was asked from the different municipalities. One interviewee admitted that there were made some missteps in participation, but both interviewees stated that the results of participation can directly be seen in the final project design.

In short, the MIRT Plan Elaboration is the last phase in which the project design can be changed after which the project design is made official. Participation is organised in multiple ways. The Participation Report and the output of the required impact assessment are among other things used to inform decision-making. The participation results can be seen in the project decisions.

4.1.5 MIRT Realisation: A16 Rotterdam

Once the Project Decision is made, the project design can be constructed. A building contractor will be assigned to realise the project in collaboration with the project team (Ministry of Infrastructure and Water Management, 2018). At the end of the MIRT Realisation, the Acceptance Decision ('Opleveringsbesluit') is made, in which responsibility is taken for the realisation of the project (Ministerie van Infrastructuur en Milieu, 2016).

MIRT Realisation A16 Rotterdam is analysed to learn more about the MIRT Realisation. This project aims to improve the capacity and accessibility at the A20 between Terbregseplein and Kleinpolderplein. Additionally, the project aims to improve the liveability around the A13 and A20 en

respond to the problems with the traffic flow at the underlying road network. The solution that is now being implemented in this MIRT Realisation, is a new national trunk road between the A13 (junction Berkel en Rodenrijs) and Terbregseplein (A16). The project already has a building contractor assigned and the actual construction tasks started in 2019 (Ministerie van Infrastructuur en Waterstaat, 2020). Figure 5 maps the project location of this project.

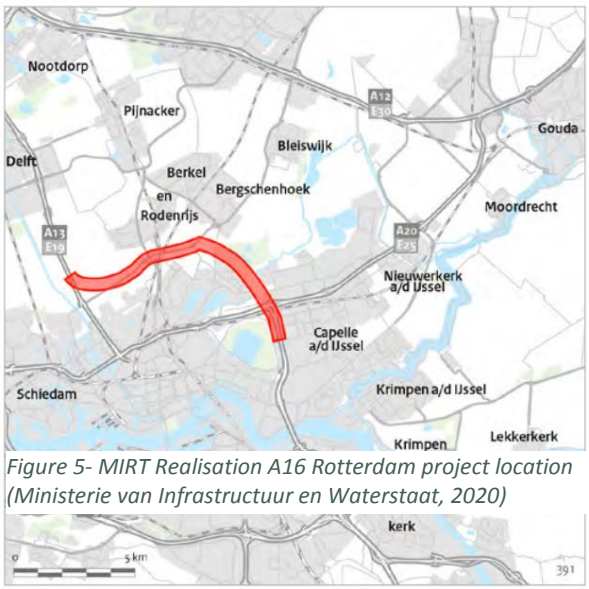

Figure 5- MIRT Realisation A16 Rotterdam project location (Ministerie van Infrastructuur en Waterstaat, 2020)

The interviewees explained that during the MIRT Exploration A16 Rotterdam and MIRT Project Elaboration A16 Rotterdam, outcomes and the EIA informed decision-making among other things, in the same ways as in the MIRT Exploration River Crossings and MIRT Plan Elaboration N65 Vught-Haaren, which confirms the findings of those phases. However, one interviewee mentioned that the participation process experienced some difficulties, which eventually had led to an external assessment and evaluation of the participation process used in MIRT project A16 Rotterdam.

Interviewees described that once the MIRT Realisation has started, almost no changes are possible in the project design and the only thing that is subject of the conversation with residents is the hindrance they experience. Among the requirements for the Acceptance Decision no items were found that relate to participation or social impacts. Residents are not asked for their about the organisation of hindrance, because according to the interviewees, people will preferably experience no hindrance, which will make the realisation of the road impossible. The project has to follow strict rules about what hindrance is allowed. The stakeholder relationship team aims to inform the residents about the hindrance and aims to reduce the hindrance for residents if possible. For example, residents who worked from home every day and experienced much noise hindrance were offered an external office outside the area of noise hindrance.

One interviewee detailed that one follow-up assessment is required after project completion: based on the *Tracébesluit* it is obligatory to assess if the project followed the noise requirements. But, no plans are made to assess whether the project created the impact it aimed for and if it still creates that impact after a few years.

To conclude, the MIRT Realisation does not allows residents to give input on the design or hindrance management, but the project team informs residents about hindrance and aims to reduce hindrance. Besides assessment of noise requirements, no follow-up assessment of the project impact is planned.

4.1.6 To what extent is are social impacts considered to be important by the MIRT project team?

This section presents how interviewees, who are part of the MIRT project team, see the importance of social impacts. When asked what interviewees like about their job, they name at least one aspect that involves society: they like to contribute to a brighter future, to make society better, to help people and some mention that they like to connect the project with society. Besides those societal aspects, most interviewees mentioned aspects of their work environment and managerial challenges as aspects they also like. The fact that almost all interviewees like it that they are contributing to society, shows that interviewees are aware that their projects might impact society.

Interviewees from all project cases have the feeling that there is enough time and money available to understand and consider the residents' interests. In the case of the MIRT Study Utrecht after 2030, in which the interviewees concluded that no efforts were taken to understand and consider residents' interests, one interviewee elaborated that there probably had been enough time and money if residents' interests were considered to be important. Another interviewee mentioned that it can be challenging to get the project team to agree with the plans of the stakeholder relationship team, because the project team sees risks in sharing information with residents. So although all projects have the feeling that there is enough time and money available to consider residents' interests, there might be specific cases in which not all plans to involve residents are accepted by the project team.

Next, interviewees from all projects, except the MIRT Study Utrecht after 2030, state that they organise participation because this is required by the MIRT procedure, and also organise additional participation based on their own initiative. This implies that the importance of participation seems to be known in most MIRT projects. In the case of the MIRT Study Utrecht after 2030, no participation was required by the MIRT procedure, which was given as one of the reasons for not organising participation. So some MIRT projects organise extra participation outside the requirements, but not all MIRT projects do that.

Some interviewees question with what weight social impacts are considered in the final decision-making by the governments. They wonder whether the whole MIRT project will be slowed down or stopped if the quality of the participation process was being low, for example due to corona measures or due to inadequate organisation of the participation process. They suggest that it might be possible that low quality participation would not be a reason to stop the whole MIRT Project.

Since interviewees like that they are contributing to society, have the feeling that there is enough time and money in their project available to consider residents' interests and organise participation outside the required participation, social impact seems to be considered important by most members of the MIRT project teams. The degree in which social impacts are considered to be key in decision-making can be challenged.

4.1.7 Analysis: current place of social impacts in the MIRT procedure

The four MIRT process phases all end with an official decision that allows for proceeding into the next phase. All four official decisions are made by the involved governments, which base the decision on all information provided by the MIRT project team.

In the case of the MIRT Study, no requirements are set for participation or assessing residents' interests and MIRT Studies do not initiate this by themselves. MIRT Study Utrecht 2030 mainly based its findings on input from governmental officials and participation in broader programs and interviewees concluded that the opinion of residents is not really heard in the MIRT Study. SIA on the other hand, requires that SIA is undertaken during the whole project time span, starting before decisions are made, so that SIA can inform all decisions that will be made (Barrow, 2002; Becker, 2001; Becker & Vanclay, 2003; Vanclay, 2003). For the MIRT process, this would mean that the awareness, assessment and management of social impacts, and thus involvement of residents' interests, should be part of the MIRT Study. Good SIA practice would offer early assessment (Barrow, 2002; Becker, 2001; Becker & Vanclay, 2003; Vanclay, 2003).

During the MIRT Exploration and MIRT Plan Elaboration, there are obligations regarding participation and assessment of impacts. Those impacts assessed relate to societal costs-benefits and environmental impacts, which might give some insight in social impacts, but it does not cover all social impacts, since social impacts assessed in SIA are everything that changes in peoples' lives after project

implementation (Barrow, 2002). That means that impacts not only should be assessed in monetary terms and related to the natural environment, but also directly from the perspective of residents. SIA could offer a structure to assess all social impacts.

In the MIRT Realisation, the project design is already official and the contact with residents is only about hindrance. The project team is open for discussing option to reduce hindrance and has to follow strict rules that set what hindrance is allowed, but the assessment of hindrance is not part of the MIRT project. SIA requires assessment and management of social impacts in all project phases (Barrow, 2002; Becker, 2001; Becker & Vanclay, 2003; Vanclay, 2003), which would mean that also the hindrance in the MIRT Realisation should be assessed. This could support the hindrance mitigation, which is already aimed for by the project team.

Further, the MIRT Realisation is not planning on follow-up assessment of social impacts of the project, except from the noise measurements. As SIA aims to assess and manage social impacts during the whole project time span, even after project completion (Vanclay et al., 2015), because there might occur unforeseen negative social impacts that need to be mitigated (Mottee, Arts, Vanclay, Miller, & Howitt, 2020b). Good SIA practice could offer proper set-up of the follow-up assessment of social impacts after project completion (Mottee et al., 2020b).

Project team members seem to be aware of the importance of social impacts, but interviewees express some doubt about the amount of weight social impacts have in decision-making. As concluded in the literature review, independent of how SIA is organised, the way social impacts are taken into account depend in the end fully on the weight of social impacts in decision-making (Mottee et al., 2020b; Mottee, Arts, Vanclay, Miller, & Howitt, 2020a).

4.2 Challenges in the MIRT process

This paragraph will describe the challenges in the MIRT projects as identified by the interviewees. Three categories of challenges can be distinguished: challenges in public participation, challenges in collaboration and decision-making of governments and challenges in process management. For each category, the challenges will be explained after which analysis is done on the extent in which SIA has something to offer that could help to solve those challenges.

Only a few interviewees briefly mentioned technical challenges in the MIRT project, like making a circular design or building on a specific type of soil. The limited mentioning of technical challenges might be the result of interviewee selection, because the interviewees are all people who are expected to explain something about the social impacts in their MIRT project, which might have resulted in an interviewee selection that is less aware of the technical aspects of the MIRT project. Since inappropriate information about technical challenges was found, the technical challenges will not be included in further analysis.

4.2.1 Challenges in public participation

In all four MIRT projects it is observed that only a part of society uses the option to have a say in the MIRT projects at the moments for participation. Interviewees mentioned that most of time the group participating consists mainly of well-organised activist groups. Interviewees identified several reasons for why other residents do not contribute in the participation processes. Most residents do not participate because:

- residents did not know that they could participate;
- and/or or residents have no opinion about the MIRT project because they will agree with whatever decisions will be made by governments;

- and/or in the case of the MIRT Study, the project team can easily answer input of residents with 'we will look into your input later', which makes participating unattractive for residents;
- and/or residents have the feeling that the realisation phase is far away in time, which gives residents the perception that participation today is unimportant;
- and/or residents do not understand the MIRT project and therefore do not feel the need for participating.

Interviewees identified multiple reasons for the lack of understanding of the MIRT project by residents, which withholds residents from participating. Multiple aspects of the MIRT projects are experienced to be hard to explain, which are:

- Residents can get the feeling that the project team takes big steps without involving residents, because the project team works further on the project on steps that seem logical to take for the project team. Sometimes explaining those steps taken behind the scenes to residents can be challenging. When residents do not understand why steps are taken without their involvement, this might withhold them from participating.
- On the other hand, it can be challenging to explain that proper research can take its time and therefore decision-making can be experienced as taking a long time, especially for residents who think that they already know the final solution. It can be challenging to explain that even though residents already have in mind what the decision should be, the project team wants to base decisions on research findings.
- Most heard challenge in explaining the MIRT project to residents, is that the projects start with abstract questions and thus with participation about abstract questions. The more steps are taken in the project, the more concrete and tangible the questions become and thus the more the participation is about concrete and tangible questions. This phenomenon comes with two aspects that can be difficult to understand for residents.
    - First, the abstract level of questions might be challenging to understand for residents, because the questions are not tangible.
    - Later, when the project becomes more concrete and tangible, the project design is made official at a certain time, after which no design changes can be made anymore. It can be challenging to explain residents that although they might understand the project better now that it is more tangible, residents have had their chance for participation and from this moment on cannot change anything about the design.
- Residents often ask questions about the hindrance that might occur during the MIRT Realisation, but in the MIRT phases prior to the MIRT Realisation it is unclear what the final design will be and thus in those phases it is unclear what hinder will occur. During the MIRT Study, MIRT Exploration and MIRT Plan Elaboration it can be challenging to explain that the project team cannot answer all questions about hindrance yet. When residents do not understand why questions cannot be answered at the moments for participation, they might not join participation.

So not all residents are part of the participation, for several reasons. In this way, not all interests of all residents can be taken into account in the MIRT projects. SIA includes a step that identifies all communities likely to be affected and *"considers people's existing way of life, culture, community characteristics, health and well-being, personal and property-rights, fears and aspirations, and include the broader aspects of environment and political aspects"* (Arce-Gomez et al., 2015, p. 89), which might help to understand the differences between residents and first ideas about their interests. Additionally, SIA does not only have to assess social impacts via participation, but can also measure and calculate social impacts (Arce-Gomez et al., 2015). In this way, social impacts can be taken into account and negative social impacts can be avoided, also for residents that are not present in the participation opportunities. Ideally, SIA also includes all resident groups in participation, so the

participation challenges identified in the interviews also should remain attention, but SIA could offer a way to get more insight in social impacts for all residents, even when not all residents are participating.

4.2.2 Challenges in collaboration and decision-making between governments

Interviewees also identify challenges in the MIRT process that relate to the collaboration and decision-making between the multiple governments involved in the MIRT projects. As explained in paragraph 4.1, IenW is always part of each MIRT process and additionally other departments or regional governments can work in a MIRT process. By involving governments of multiple levels and regions, the MIRT procedure aims to work on common goals that relate to both national and regional challenges which should lead to better project outcomes (Ministerie van Infrastructuur en Milieu, 2016). However, interviewees explain that the collaboration between the several governments can be challenging, especially when common decisions have to be made and common goals have to be defined. In all four MIRT project cases in this study, multiple governments are involved, including both national and regional governments. Interviewees referred to several causes of the challenges in the collaboration and decision-making of the multiple involved governments in the MIRT projects, which are:

- Collaboration and decision-making of governments is experienced to be difficult, because there are 'so much' organisations involved that all have an opinion about the MIRT project.
- Involved governments often have different interests in the project. So the multiple opinions included about the project often are also different opinions about the project.
- Some interviewees specifically mention challenges in the communication and decision-making between the governments from the different governmental levels. The differences in interests between national governments, most of time IenW, and regional governments, most of time municipalities, are specifically mentioned by interviewees. Interviewees experienced that the national government most of time contributes to the MIRT project because they want to improve the flow through of traffic at the national roads. On the other hand, regional governments are more interested in improving the liveability of the region and put more priority to local infrastructure like local bicycle lanes. The differences in the level at which the interests can make it challenging to have clear communication between the governments of different levels and can make it challenge to align all interests into common project goals.

SIA practioners can help identifying the scope of SIA on which all governments can agree (Vanclay et al., 2015). Although SIA is an iterative and participatory process and therefore not the complete outset can be defined at the start of the process (Vanclay et al., 2015), SIA could bring attention to the need for defining the scope of participation and impact assessment, so that is clear at the start of the MIRT project for all involved governments. So SIA does not change the different interests of the governments and will not be the "silver bullet" in coping with challenges in communication and decision-making between governments, but helps formulating a common goal for assessing and mitigating social impacts.

4.2.3 Challenges in process management

Several challenges in the MIRT process management were identified that did not relate to public participation or governments. Those challenges are:

- It can be challenging to complete the project within time and budget.
- The planning of the project can be challenging, as you have to be aware of the sequence in which you complete tasks and keep in mind what you need to know or do before you start another task.

- In the MIRT Study, the project team has to align the project goals on mobility with other goals in the region like the planning of housing and work locations. The MIRT Study experienced difficulties in communication between and formulating common goals between the different aspects of a region.
- In the MIRT Realisation, it can be challenging to translate the final project design to clear requirements for the building contractor.

For those challenges, no aspects of SIA could be identified that might solve of reduce those challenges.

4.3 Where to implement SIA in the MIRT process

Interviewees were also asked about choices on how to implement SIA in the MIRT process. The interviewees' perspectives are organised around the following questions: making a SIA standard or not, having an external 'SIA committee' or not and having SIA in the EIA or having SIA as separate assessment. Last, some interviewees were explained the SIA concept and were asked whether they think SIA will be useful for MIRT projects. Answers to this question will also be discussed. For each question the results will be presented, after which the results are analysed by combining the results with literature findings.

4.3.1 Making a SIA standard or not

Interviewees were asked if they are interested in a standard for considering social impacts in their MIRT projects. Interviewees from all projects argued that one standard for considering social impacts in MIRT projects is not desirable because all MIRT projects are different, and thus have different needs in how social impacts should be considered. Almost all interviewees mentioned that assessing and responding to residents' interests is challenging in their MIRT project, because the MIRT project operates in a densely populated area. Interviewees explain that projects in a densely populated area require other forms of assessment and responses to residents' interests, than projects that operate in meadows and agricultural landscapes. One interviewee explains that the projects differ in involved parties, interests and politics.

Some interviewees added to this, that a standard is not desirable, because this will limit the freedom of employees in working on their project. This argument was specifically made for the MIRT Study, which is explicitly has a 'free format' that allows employees to do what they consider useful in their case because MIRT Studies differ. Besides differences in the population density, the MIRT Studies vary in the extend in which it already considers possible solutions and in which extend the MIRT Study is investigating what trends occur in an area.

To cope with the differences between MIRT projects, interviewees give several possible solutions. Some interviewees prefer to define no standards or rules, but instead suggestions should be provided for how to involve residents in the different phases of the MIRT process. Others advocate that the different MIRT projects should be organised in different categories, so that each category can receive its own standard. The level of population density might be a good starting point for categorising MIRT projects. Part of the interviewees propose to set a basic standard of what each MIRT project at least has to include in their project about considering residents, like newsletters and information nights, but that additional initiatives for considering residents have to be defined for each individual MIRT project.

What can be concluded from the interviewees' answers, is that for MIRT projects a full standardised approach is not desirable, because the project differ. Interviewees propose different degrees of standardisation, but all proposals have in common that SIA allows for flexibility to adjust SIA towards the needs of the specific project. This argument was also found in the literature review (Arce-Gomez et al., 2015; Becker et al., 2004; Vanclay, 2003). But, although interviewees agree that SIA for MIRT project must have some flexibility interviewees did not agree about the exact degree of

standardisation. The literature review did also not show consensus about the exact degree of standardisation.

4.3.2 Having an external 'SIA committee' or not

Some interviewees think that social impacts are best assessed an external committee, and other argue that it might be valuable to have this assessment done by the MIRT project team itself. One interviewee mentioned that some calculations about traffic impact are already done by an external party. Another interviewee explained that 'joint fact finding' is already used, which means that residents are involved in organisation of research conducted in the MIRT project, so that the chance that residents agree with research outcomes increases.

According to interviewees, arguments that plea for an external committee for assessing social impacts, are:

- An external committee can help to guarantee attention to social impacts, because it is feared that when the responsibility for SIA lies with the project team the SIA might not get enough attention.
- External evaluation of the MIRT project is assessed to be valuable, because others might have a more critical look at your work than you have yourself.
- An external committee makes the assessment independent and avoids political involvement in the assessment. But, another interviewee stated that degree in which residents see assessment as independent might not depend on who assesses, but on who pays for the assessment. This is challenging to solve, because residents are not likely to pay for those kind of assessments.

Arguments against an external assessment committee for social impacts and for making the project team responsible for impact assessment, are:

- The project team is connecting all the aspects of the project with each other, of which residents are one. The interviewee that expressed this argument experienced that when some external party only joins the process for a short time, it can be challenging to have that party fully involved in the process. But this might be solved when an external committee is involved for a longer time period.
- Some interviewees said that their first response would be that adding another external assessment to the MIRT process might be frustrating, because this can influence the planning of the project. But one interviewee argued that frustration might not be valid reason to not have an external assessment.
- One interviewee stressed that if too much weight is laid on the opinion of residents, it can become challenging to realise a road, because there are often groups that are against the road. And if you ask people about hindrance, they preferably have no hindrance so that would mean that no roads can be constructed. But this depends on the exact weight that the external committee might get.

To conclude, some MIRT project are aware that it can beneficial to have assessments done externally and are already doing that. Further, arguments for and against external assessment of social impacts are presented by the interviewees, based on which no conclusions could be drawn.

4.3.3 Having SIA in EIA or SIA as separate assessment

Interviewees were also asked about their opinion on whether SIA should be placed in the MIRT process included in the EIA or placed as separate impact assessment. Only a few interviewees considered themselves as informed enough about the EIA to give an opinion about were SIA should be placed in relation to the EIA. Those interviewees think it would be valuable to assess more social impacts in the EIA. But the transcripts do not give an explanation for this opinion, except from one interviewee who answered that it might be useful to have social impacts assessed in the EIA, because the EIA is really strict and legislated, which might help to give social impacts a voice in the decision-making processes.

This interviewee underscored that the exact position of the SIA in relation to the EIA might not really matter, as long as it is guaranteed that the outcomes of SIA have appropriate weight in the decision-making process. This point was also made in the literature review, that stated that commitment to social impacts is more important than the placement of SIA within the project (Vanclay, 2004)

4.3.4 Using SIA in MIRT projects or not

Only the last few interviewees was explained the SIA concept, after which those interviewees were literally asked how they think about using SIA in MIRT projects. All interviewees asked saw opportunities in using SIA, none of them argued that SIA should not be implemented.

One interviewee describes that residents are already asking about the impact of the MIRT project on their health, like: how does this project influence my life expectancy? How does the hindrance impact my psychical health? The project team receives those questions after residents had sent them to the Municipal Health Service ('Gemeentelijke Gezondheidsdienst', GGD). Impacts like air quality and noise are being assessed in MIRT projects, but there are no assessments done on how the changes in noise and air quality impacts residents. There is currently no obligation to assess this impact on residents, but more and more people start asking about the consequences of the project for them. The interviewee stated that it might be good to do ask those questions beforehand.

Another interviewee also thinks that it might be valuable to not only asses the air quality and noise, but also assess what that would mean for residents. An comparison with the EIA was made:

"*With the EIA we have a detailed look at the nature in the area. We say 'alright we have some bats, these types of birds and a special group of owls, so each of them gets its own chapter in which we describe what they need and how we can protect them. But there is never a chapter about the residents in the area: who are those people? What are they sensitive for? What do they need? I think it would be great idea to use SIA."*

The interviewee also explained that currently residents are asked for their opinion, but that that is always in the context of a design or decision that is already selected. SIA would change the starting point of the conversation with residents from talking about a design, towards talking about the desires and need of residents. Instead of asking *'we are planting trees here and put the bicycle lane here, do you agree or do you have other suggestions?'*, the focus of SIA will be on '*what do residents need from our MIRT project?'*. Other interviewees mentioned in the context of other questions that participation is often organised around a design or a decision that is already selected, and that residents are then asked for their opinion. Changes in the design or decision on which input is asked, are still possible, but the starting point of the involvement of residents is that there already is a design or decision in mind.

The interviewee described that different residents in the area also have different interest in the MIRT project, and that it might be interesting to see whether SIA can help to get better insight in the interests of different residents. Other interviewees mentioned in the context of other questions that there are different residents with different interests.

The interviewees who were asked about SIA, are enthusiastic about the opportunities SIA has to offer. Interviewees identified SIA as an opportunity to assess what the project means for the residents. Besides, interviewees see SIA as on opportunity to not only focus on residents' input on a design or decision that is already presented, but also to learn about the needs and desires of the residents which can inform the design beforehand. Last, SIA was identified as an opportunity to learn more about the different residents in the area. All identified opportunities by residents can indeed be offered by SIA (Vanclay et al., 2015).

5. Conclusion and Discussion

To conclude, first the opportunities that SIA offers MIRT projects are listed, after the which the placement of SIA within the existing MIRT process is discussed. Last, directions for further research are identified.

SIA is an opportunity for MIRT projects

Multiple aspects of SIA offer support in the MIRT process to assess, manage and mitigate the social impacts of the regional MIRT projects in the modality 'main roads' in densely populated areas. But, SIA cannot guarantee perfect outcomes regarding the assessment, management and mitigation of social impacts.

One opportunity that SIA has to offer to the type of MIRT projects under analysis, is the broadening of the scope of social impacts assessed in the MIRT projects. Taking more aspects of residents' interests into account, can lead to a reduction of negative social impacts, increasing of positive social impacts and better community acceptance of the planned intervention. SIA could broaden the scope of social impacts assessed in MIRT projects three ways:

- MIRT projects currently assess project impacts in monetary terms and related to the natural environment, which can give an insight in social impacts. But, SIA could offer a structure to identify the broader range of social impacts, so that everything that changes in peoples' lives by the project implementation is taken into account.
- SIA also offers the opportunity to involve residents by asking them what their needs and desires are, instead of asking residents their opinion about a design that is already made. By taking residents' interests into account before any design is made, all residents' interests can be taken into account and residents can be involved in the MIRT project directly from the beginning of the project.
- SIA could offer assessment of the social consequence of hindrance. The MIRT Realisation brings hindrance during the construction of the infrastructure, which currently is aimed to be mitigated, but not assessed. Assessing the social impact of the hindrance could support the hindrance mitigation.

Besides, SIA can be part of the answer to the current challenge of having not all residents being present in the participation processes governed by the MIRT project. SIA can be an opportunity to create better insight in interests of *all* residents, including residents who are not present in the participation processes. In this way, negative social impacts can be reduced and positive social impacts can be increased for all residents and it can lead to better community acceptance of the project. Better insight in all residents' interests can be created in two ways:

- SIA could be an opportunity to get better insight in the characteristics of the residents in the area, because SIA aims to identify and analyse all communities likely to be affected, also residents who are not present in the participation process governed by the MIRT project.
- Additionally, SIA not only analyses social impacts via participation, but also by measuring and calculating social impacts. By measuring and calculating social impacts, also residents who are not present in participation processes are taken into account.

Also, SIA offers help in identifying the scope of impacts assessed, on which all the different government organisations have to agree in the MIRT process. This offers help in the communication and decision-making between e.g. provinces, municipalities and water boards, which is experienced to be challenging in MIRT projects. This can thus make the MIRT process more efficient.

Additionally, MIRT projects currently do not take social impacts into account in all project phases. SIA could offer a structure that assesses social impacts during the entire project timespan, by also taking social impacts into account at the following two moments at which this is currently not done:

- The MIRT Study does not require the assessment of residents' interests and MIRT project teams do not initiate to assess residents' interests by themselves. Social impacts are everything that residents experience as a consequence of the project, which can occur from the moment that residents have feelings regarding the project announcement. Therefore, SIA assesses social impacts from the beginning of the project. This could be an opportunity to include residents' interests in decision-making from the moment the project starts with the MIRT Study, which will help increasing the positive social impacts, mitigating the negative social impacts and better community acceptance.
- Besides, the MIRT Realisation currently does not plan on follow-up impact assessment, except from noise assessment. SIA would also be conducted as follow-up assessment after project completion, which offers the opportunity to assess whether the project still has the desired impact after several years and plan mitigation strategies if necessary.

IN SHORT: SIA OFFERS MULTIPLE OPPORTUNITIES FOR MIRT PROJECTS

Opportunities of using SIA in MIRT projects:

- **SIA can broaden the scope of social impacts assessed, by:**
  - Not only assessing in monetary terms and related to the natural environment
  - Not only ask input from residents on designs, but also look into residents' desires and interests beforehand
  - Also assessing the impact of the hindrance during the construction of infrastructure in the MIRT Realization.
- **SIA also generates insight in residents who are not present in participation processes, by;**
  - Identify and analyse all communities likely be affected
  - Not only using participation, but also measure and calculate social impacts
- **SIA can help identifying and agreement on the scope of impacts assessed with all involved governments**
- **SIA will assess social impacts in all MIRT phases, by adding assessment at:**
  - The MIRT Study phase
  - The follow-up after project completion

Placement of SIA in MIRT process

Further research should be conducted to define how SIA could be placed in the existing MIRT process. Interviewees agree that some amount of flexibility in SIA for MIRT projects is desirable, because all MIRT projects differ and this requires different assessment and mitigation strategies. But, interviewees had various opinions about the exact desirable degree of flexibility in a SIA standard for MIRT projects. Literature also could not reach consensus about the degree of flexibility in standardisation. Besides, interviews presented arguments for and against external assessment of social impacts, based on which no conclusions could be drawn. The interviewees' answers on the question whether SIA should be part of EIA or implemented as separate assessment did also not result in conclusions.

When it is decided to implement SIA in the MIRT process, those questions about the placement of SIA in the existing MIRT process need to be taken into account and need further research. But, independent of the placement of SIA in the MIRT process, the way social impacts are taken into

account depend fully on the weight of social impacts in decision-making, which was concluded by both the literature review and the interview analysis.

IN SHORT: MORE RESEARCH NEEDED ON HOW SIA CAN BE IMPLEMENTED IN MIRT PROCESS
Suggested further research on implementing SIA in the MIRT process:

- All MIRT projects are different thus an amount of flexibility in the SIA process is desirable. The question is: to what degree should SIA for MIRT projects be flexible and to what extent standardised?
- To what extent should SIA in MIRT projects be conducted by an external party or by the MIRT project team?
- Should SIA be embedded in the already used EIA or should SIA be used as separate assessment?

No matter how SIA will be exactly implemented, the success of social impact assessment and mitigation depends on the weight social impacts will have in decision-making.

Identifying directions for further research

First of all, when decided to implement SIA in the MIRT process, more research is needed about how SIA could be placed in the MIRT process. Questions about the degree of flexibility in the SIA standard, assigning an external SIA committee and the placement of SIA in relation to the EIA are questions that need to be considered, because to conclusions could be drawn about those aspects in this research. Also, research can be done on which SIA standard might be most suitable for MIRT project, or whether there should be developed a new SIA standard specifically for MIRT projects.

Besides, most interviewees mentioned that the Dutch new Environment and Planning Act ('omgevingswet') also might be interesting to look into in relation to the interview questions asked. The Environment and Planning Act is expected to be applied in 2020 and aims to integrate all existing legislation for environmental planning, to make legislation for environmental planning more clear and coherent (Aan de slag met de omgevingswet, n.d.-a). The Environment and Planning Act includes requirements for participation, which means that it should be documented how residents and other stakeholders are involved in the process (Aan de slag met de omgevingswet, n.d.-b). The Environment and Planning Act will thus require that projects present that they are organising participation, but does not require any specific form of participation. SIA could be a way to comply to the requirement to show how participation is organised within the project. Some other parts of the Environment and Planning Act will require some parts that are also in line with steps that have to be taken in SIA (De Groot, 2017), but for the specific case of MIRT projects more research is needed to see what SIA offers to comply with the Environment and Planning Act.

Further research on what SIA could offer MIRT projects should include more interviewees per MIRT project. According to methodological guidelines, the amount of interviewees should be determined based on the amount of interviewees needed to reach saturation. This means that the collection of data stops when data no longer brings new insight (Creswell, 2014). In this study, the amount of interviewees was based on practical considerations, which resulted in data saturation for some topics, but not for all topics. So in order to understand the opportunities of SIA better, more research should be done that includes interviews with more interviewees.

Additionally, not only more interviewees per MIRT project should be researched, but also more MIRT projects should be taken into account in further research. Interviewees often explained that all MIRT projects are different. Population density was identified as important aspects on which MIRT project differ in relation to assessment, management and mitigation of social impacts. Since the MIRT projects in this study were selected because they operate in an urban setting, which is a densely populated

area, it is recommended to also analyse the opportunities of SIA specifically for MIRT projects in a less densely populated area. Besides, the influence of other MIRT project characteristics on the opportunities of SIA could be investigated, like other modalities and MIRT projects at national scale. In this way, it can be learned to what extent the findings for regional 'main road' MIRT projects in densely populated areas also hold for other MIRT project contexts. It is expected that there will be similar findings in other MIRT project contexts for most topics, since all MIRT projects follow the same structured process, but this should be verified with more research.

Last, this study only includes perspectives from people working on MIRT projects, which was an useful way to get a first understanding of what SIA offers for MIRT projects in this explorative research. However, since SIA is undertaken to understand the social impacts for all people in the project area, the opinion of residents should also be taken into account when concluding whether SIA has something to offer for MIRT projects, which is recommended for further research.

IN SHORT: MULTIPLE DIRECTIONS FOR FURTHER RESEARCH IDENTIFIED

Suggestions for further research:

- How could SIA be placed and implemented in the MIRT process?
- What has SIA to offer to let MIRT projects comply with the new Environment and Planning Act ('omgevingswet')?
- Include more interviewees per case to get a deeper understanding
- Include more MIRT projects to see: to what degree do the findings of this research hold for other types of MIRT projects?
- Interview not only people who are part of MIRT project teams, but also residents, to analyse: what do residents see as opportunities of using SIA in MIRT projects?

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Appendix A – List of Abbreviations

ABBREVIATION	ENGLISH	DUTCH (IF USED)
BO	MIRT Consultation Committee	Bestuurlijk Overleg MIRT
DP	directorate for Public Participation	directie Participatie
EIA	Environmental Impact Assessment	Milieueffectrapportage (m.e.r.)
ESIA	Environmental and Social Impact Assessment	Milieu en sociale effectenrapportage
GGD	Municipal Health Service	Gemeentelijke Gezondheidsdienst (GGD)
IAIA	International Association for Impact Assessment	
IenW	Ministry of Infrastructure and Water Management	Ministerie van Infrastructuur en Waterstaat
IFC	International Finance Corporation	
MIRT	Multi-Year Programme for Infrastructure, Spatial Planning and Transport	Meerjarenprogramma Infrastructuur, Ruimte en Transport
NKO	Memo promising solutions	Notitie Kansrijke Oplossingen
NRD	Memo of scope	Notitie Reikwijdte en Detailniveau
RWS	*Rijkswaterstaat,* Directorate-General for Public Works and Water Management	Rijkswaterstaat
SCBA	Societal cost-benefit analysis	Maatschappelijke kosten-batenanalyse (MKBA)
SIA	Social Impact Assessment	Sociale effecten rapportage
SLR	Systematic Literature Review	Systematisch Literatuur Onderzoek
TB	No translation, *"Tracébesluit"* used as term, which is a form of infrastructural decree	Tracébesluit

Appendix B – List of Translations

ENGLISH	DUTCH	ABBREVIATION (IF USED)
Acceptance Decision	Opleveringsbeslissing	
building contractor	aannemer	
Code for Public Participation	Code Maatschappelijke Participatie	
Council of State	Raad van Staten	
directorate for Public Participation	directie Participatie	DP
District Water Board	Waterschappen	
Environment and Planning Act	Omgevingswet	
Environmental and Social Impact Assessment	Milieu en sociale effectenrapportage	ESIA
Environmental Impact Assessment	Milieueffectrapportage (m.e.r.)	EIA
Free format	vormvrij	
House of Representatives	Tweede Kamer	
Initial Decision	Startbesluit	
lodge an appeal	Beroep aantekenen	
Memo of Scope	Notitie Reikwijdte en Detailniveau	NRD
Memo Promising Solutions	Notitie Kansrijke Oplossingen	NKO
Ministry of Infrastructure and Water Management	Ministerie van Infrastructuur en Waterstaat	IenW
MIRT Consultation Committee	Bestuurlijk Overleg MIRT	BO
MIRT Exploration	MIRT Verkennnig	
MIRT Plan Elaboration	MIRT Planuitwerking	
MIRT Realisation	MIRT Realisatie	
MIRT Study	MIRT Onderzoek	
Multi-Year Programme for Infrastructure, Spatial Planning and Transport	Meerjarenprogramma Infrastructuur, Ruimte en Transport	MIRT
Municipal Health Service	Gemeentelijke Gezondheidsdienst (GGD)	GGD
national trunk road	rijksweg	
Tracébesluit	Tracébesluit	TB

zienswijze	zienswijze	
Rijkswaterstaat, Directorate-General for Public Works and Water Management	Rijkswaterstaat	RWS
Preferential Decision	Voorkeursbeslissing	
Project Decision	Projectbeslissing	
Regional Transport Authority	Vervoerregio	
Social Impact Assessment	Sociale effecten rapportage	SIA
Societal cost-benefit analysis	Maatschappelijke kosten-batenanalyse (MKBA)	SCBA
stakeholder relationship manager	omgevingsmanager	
stakeholder relationship team	omgevingsteam	
Systematic Literature Review	Systematisch Literatuur Onderzoek	SLR
Zoning Plan	Bestemmingsplan	

Appendix C – Interview Protocol

Introductie

1. Voorstellen
2. Kort uitleg onderzoek: het onderzoek gaat over de sociale impact van MIRT projecten. Hierin is sociale impact alles wat door omwonenden en andere belanghebbenden als gevolg van het project wordt ervaren.
3. Mag ik het interview opnemen?

Functie: hoe ervaar je je baan?

4. Wat is je functie binnen het MIRT project?
    a. Hoelang al betroken?
5. Wat vind je leuk aan je functie?

Project: wat speelt er?

6. Wat is de huidige status van het project?
7. Wat zijn de uitdagingen in deze MIRT fase in het project?
    a. Is dat uniek voor deze fase?
8. Wanneer is het project geslaagd?

Gevolgen en betrekken bewoners

9. Hoe ga je in het project om met de gevolgen voor omwonenden/stakeholders?
    a. Naar welke gevolgen wordt er gekeken? Wie bepaalt wat wel/niet binnen inspraak valt?
        i. In hoeverre gaat het om de gevolgen van het eindresultaat?
        ii. En in hoeverre over de gevolgen van het aanleg proces en de hinder?
    b. Hoe kom je erachter wat mensen belangrijk vinden?
    c. In hoeverre heb je het idee dat iedereen meedoet? Mis je groepen?

10. Op welke manier zijn omwonenden/stakeholders betrokken bij het project?
    a. Hoe is de balans tussen alleen informeren en de invloed die omwonenden/stakeholders hebben?
    b. Waarover kunnen mensen wel/niet meepraten?
    c. Op welke momenten?
    d. Timing: vind je dat op tijd, te vroeg, te laat?
    e. Is dat voldoende?

11. Wat zijn uitdagingen in het ophalen van belangen?
    a. Hoe ga je daar mee om?
    b. Is dat specifiek voor deze fase?

Invloed besluitvorming

12. In hoeverre hou je rekening met de behoeftes van stakeholders/omwonenden in besluitvorming?
    a. Hoe? Voorbeeld?
    b. Nee? -> waarom niet?
13. Wat kunnen mensen nog wijzigen in deze fase?
14. Wat zijn uitdagingen?

m.e.r.

15. In hoeverre worden de meningen van omwonenden/stakeholders bekeken in m.e.r.?
    a. En in hoeverre in de m.e.r. besluitvorming?
16. Doel m.e.r. is milieu impact plekje geven in besluitvorming, zou iets vergelijkbaars handig zijn voor sociale impact?
17. Denk je dat meer aandacht voor sociale impact in de m.e.r. zou helpen? Of beter een los proces?

Procedureel

18. Wat je nu doet aan omgang met omwonenden/stakeholders; is dat uit eigen initiatief of vanuit MIRT procedure?
19. Is er voldoende tijd om de mening van omwonenden/stakeholders mee te nemen?
20. In hoeverre is er voorafgaande aan de huidige MIRT fase genoeg naar omwonenden geluisterd en meegenomen in besluitvorming om nu goed je werk te kunnen doen?
    b. Mis je iets specifieks?
    c. Mis je iets in een bepaalde fase?
21. Zou je meer ondersteuning/structuur willen in…
    d. De omgang met omwonenden/stakeholders?
    e. het meenemen van de mening van omwonenden/stakeholders in de besluitvorming?
22. In hoeverre denk je dat er één proces voor de omgang met sociale impact gedefinieerd kan worden dat werkt voor alle MIRT project? Is het te standaardiseren?
    a. Waar zitten eventuele verschillen?
23. Denk je dat je de omgang met sociale gevolgen van een project beter de verantwoordelijkheid kan laten van de mensen die aan het project werken, of van een externe partij?
24. Wat zou er beter kunnen in de algemene omgang met omwonenden/stakeholders?
25. Het onderzoek gaat ook over Social lmpact Assessment (SIA), dat is een soort m.e.r., maar dan speciaal voor de belangen van omwonenden. In hoeverre denkt u dat dat iets te bieden heeft?

Afsluiten

26. Bedankt, ik zal het eindresultaat opsturen!
27. Zou ik nog terug mogen komen met een kleine vraag indien nodig?
28. Heel erg bedankt!