



## **EIAplus - Subreport 3: Limitations and possibilities for social consequences in EIA**

**Larsen, Sanne Vammen; Nielsen, Helle; Lyhne, Ivar ; Rudolph, David Philipp; Clausen, Niels-Erik**

*Publication date:*  
2017

*Document Version*  
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

*Citation (APA):*  
Larsen, S. V., Nielsen, H., Lyhne, I., Rudolph, D. P., & Clausen, N-E. (2017). *EIAplus - Subreport 3: Limitations and possibilities for social consequences in EIA*.

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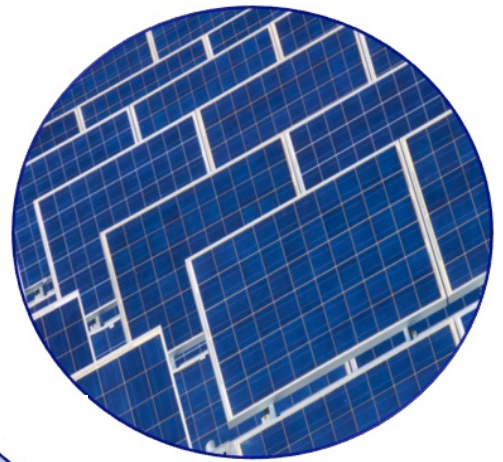
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## SUBREPORT 3 – LIMITATIONS AND POSSIBILITIES FOR SOCIAL CONSEQUENCES IN EIA

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February 2017



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Title: VVMPlus – Subreport 3: Limitations and possibilities for social consequences in EIA

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Publication date: January 2017

Project partners: Nordic Folkecenter for Renewable Energy

Financial support: ForskEI

Citation: Larsen et al. 2016. *VVMPlus – Subreport 3: Limitations and possibilities for social consequences in EIA*. The Danish Centre for Environmental Assessment, Department of Planning, Aalborg University

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# 1 PROJECT DESCRIPTION

This report presents methods and results from the third part of the research project EIA plus. The project is carried out by a project group from The Danish Centre for Environmental Assessment at AAU, DTU Wind Energy and Nordic Folkecenter for Renewable Energy with financial support from ForskEI.

With the Danish energy accord from 2012<sup>1</sup>, it was decided at a national level, to future-proof Danish society through a growing green economy. The initiatives in the accord point towards a long-term goal to be supplied with 100% renewable energy (RE) in 2050, and to secure a continued high security of energy supply. At the same time this transition is challenged by a lack of public acceptance, due to public resistance against wind turbines and biogas plants, but also for example photovoltaic power plants. From this point of departure, EIAplus aims to study the conditions for public acceptance of RE-projects and the barriers that result from public resistance against RE-projects. Part of what occupies and concerns the public are social consequences, for example impacts on health, recreational values, local identity, security and property prices.

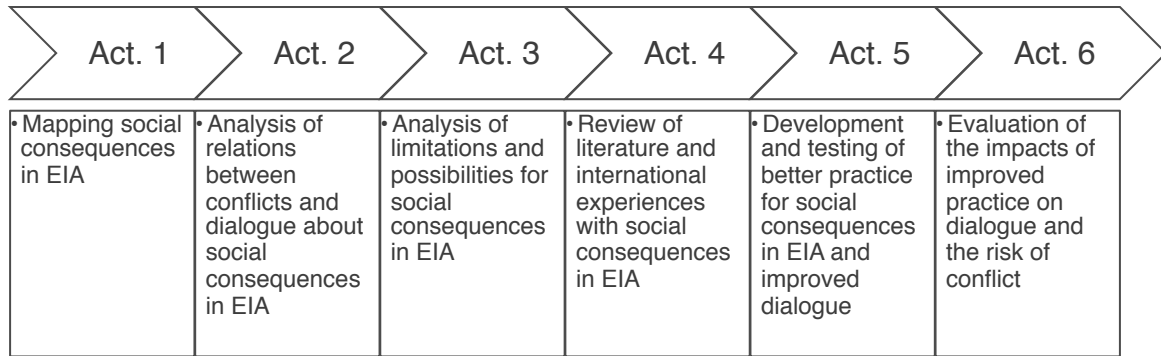
Within RE, new facilities such as wind turbines, biogas plants, photovoltaic power plants and biomass fuelled heating CHP plants, are covered by legislation demanding an Environmental Impact Assessment (EIA) before construction. EIA is a significant arena for dialogue between proponent, authority and the public concerning the consequences of the project in questions, including the social consequences. However, research findings indicate that social consequences are often not included in EIA-processes. The hypothesis is that when the decision-making process do not handle what are perceived as significant negative consequences, this can create mistrust, concern and discontent among citizens. This in turn can grow to active resistance against the RE-project. This is the issue, which EIAplus aims to shed light on and to improve.

EIAplus is thus to contribute with new knowledge of how a transition of the energy system to RE can happen in a more expedient way, through more qualified focus on and dialogue about social consequences in EIA. In the first phases of the project, knowledge about social consequences in EIA of Danish RE-projects is built. Based on this, the project will move on to test new ways of including social consequences in EIA as well as new ways of engaging the public in dialogue regarding this. This will be done on cooperation with a range of central RE-businesses and EIA consultants. In order to secure this cooperation, the project has a reference group. The reference group will follow the progress and results of the project and contribute knowledge and cases for the test phase. The reference group consists of professionals working with EIA and RE, and consists of representatives from the Danish Nature Protection Agency, Rambøll A/S, Grontmij A/S, COWI, PAnEnergi, the Danish Wind Turbine Owner's Organisation and the Danish District Heating Association.

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<sup>1</sup> <http://www.ens.dk/politik/dansk-klima-energipolitik/politiske-aftaler-pa-energiomradet/energiaftalen-22-marts-2012>

The project is primarily a research project, and consists of activities as shown in the figure below.



The present report concludes activity 3.

## 2 RESEARCH DESIGN

In this chapter the purpose and research question for this sub-report is presented. This is followed by an account of the applied methodology.

### 2.1 PURPOSE AND RESEARCH QUESTION

Work package 3 primarily aims at answering the question:

- *What are the limitations and possibilities to handling social consequences in EIA related to RE-technology?*

To answer the question, a series of interviews are conducted with key actors. This is supplemented with a preliminary document analysis of the Danish legislation and guidance, which regulate the EIA process. The methodology and data is presented in detail in section 2.2.

### 2.2 METHODOLOGY AND DATA

There are two parts in the analysis; interviews and a document study as described in the following.

#### 2.2.1 DOCUMENTSTUDY

To analyse the legal barriers and possibilities, a review is made of the Danish legislation. The following documents are analysed:

- Bekendtgørelse om vurdering af visse offentlige og private anlægs virkning på miljøet (VVM) i med før af lov om planlægning. BEK nr 957 af 27/06/2016. (Hereafter named the EIA Act)
- Lov om miljøvurdering af planer og programmer og af konkrete projekter (VVM). LOV nr 425 af 18/05/2016. (Hereafter named Law on Environmental Assessment)
- Vejledning om VVM i Planloven. 2009. Anne-Marie Madsen og Gert Johansen. Miljøministeriet, By- og Landskabsstyrelsen. (Hereafter named the EIA Guidance)

In October 2016, the EIA Act is the legislation in force that regulates EIA. Law on Environmental Assessment enters into force in May 2017 and will subsequently regulate EIA. Thus it is particularly relevant to review Law on Environmental Assessment as the future regulation, however, the EIA Act is also reviewed because there is no guidance published for the new law yet. Thus both sets of legislation are reviewed, and where they are identical, the EIA Guidance is used to nuance what is stated in legislation. This is based on the assumption that what has not been changed in the new legislation, will not be changed in the coming guidance. At least, the content of the current guidance gives an indication of what will be the content of the coming guidance.



The review was carried out by reading through both legislations and noting anything related to social consequences as defined in this project<sup>2</sup>. In the instances where the two sets of legislation are identical, the guidance has been examined afterwards.

### 2.2.2 INTERVIEWS

Two series of interviews have been used in the analysis. First, results from interviews carried out as part of work package 1 (see Larsen and Nielsen 2016) have been used. Second, further interviews were carried out specifically for this work package. The method used for the interviews in work package 1 is summarised below and described in detail in Larsen and Nielsen (2016).

Specifically for this work package seven interviews were carried out with legal experts, consultants, project developers, national and local authorities, covering the main types of actors involved in the EIA process for RE-projects. Further one respondent has given input via email.

Table 2.1 shows an overview of the interviews.

	Organisation	Participants	Interviewer	Date
Work package 1	Danish Agency for Water and Nature Management	Planner Tobias Grindsted	Helle Nielsen, DCEA	23. June 2016
	Aalborg Municipality	Planners Anne-Vibeke Skovmark and Peter Serup	Anne Merrild Hansen, DCEA	28. June 2016
	Kalundborg Municipality	Planner Dennis Ravn	Helle Nielsen, DCEA	29. June 2016
	COWI A/S	Consultant Louise Lundbeck Krogh	Sanne Vammen Larsen, DCEA	28. June 2016
	Rambøll A/S	Consultants Sesse Bang, Karina Damgaard and Claus Fischer Jensen	Sanne Vammen Larsen, DCEA	21. June 2016
Work package 3	Danish Agency for Water and Nature Management	Legal expert Helle Ina Elmer	Sanne Vammen Larsen, DCEA	1. December 2016
	University of Copenhagen	Legal expert Helle Tegner Anker (This respondents answered via email)	Niels-Erik Clausen, DTU	15. November 2016
	COWI A/S	Legal expert and consultant Ulf Kjellerup	Sanne Vammen Larsen, DCEA	30. November 2016
	PlanEnergi	Consultant Mio Schrøder	David Philipp Rudolph, DTU	8. November 2016

<sup>2</sup> See Larsen S and H Nielsen. 2016. *VVMplus – Delrapport 1: Kortlægning af integration af sociale konsekvenser i VVM-praksis*. Det Danske Center for Miljøvurdering, Institut for Planlægning, Aalborg Universitet.

	Vattenfall	Project Developer Arne Rahbek	Niels-Erik Clausen & David Philipp Rudolph, DTU	27. Oktober 2016
	EuroWind	Project Developer Bo Schøler	David Philipp Rudolph, DTU	11. November 2016
	Esbjerg Municipality	Planner René Nygaard Antvorskov	Ivar Lyhne, DCEA	28. November 2016
	Kalundborg Municipality	Planner Dennis Ravn	Helle Nielsen, DCEA	28. November 2016

Table 2.5 Overview of interviews used in the analysis

The interviews for this work package 3 were carried out as open interviews based on the following questions:

- How would you define social consequences?
- What are the barriers for handling social consequences in EIA?
- What are the possibilities for handling social consequences in EIA?

Some of the interviews were carried out via telephone. After each interview a summary was prepared and sent to the respondents for approval and corrections. The respondents are anonymised in the report, when direct quotes are used, a reference is made to their professions in order to provide context of the statement.

### 3 THE LEGAL FRAMEWORK

Various respondents have pointed out the significance of the legal framework during the interviews in WP1 (see section 2.2.2). This includes limitations in the legislation and guidance, which the respondents do not believe focus on social impacts, but rather more narrowly on impacts derived from environmental issues. Based on this an analysis of the legal framework is conducted in the following.

#### 3.1 DOCUMENT ANALYSIS OF LEGISLATION AND GUIDANCE

In the objective of the Law on Environmental Assessment in §1, it is emphasised that *“The purpose of the Law is to secure a high level of environmental protection, and contribute to the integration of environmental consideration during the preparation and approval of plans and programmes and permission of projects...”* Environment and Environmental considerations can however be interpreted in different ways, and environmental considerations are clarified in §1 subsection 2. Here i.a. the population, human health and material goods are mentioned, as some of the parameters that should be assessed in the environmental assessments. This is repeated in §20 subsection 4, specifically aimed at EIA: *“The information about the proposed project, that the proponent has to provide in the EIA report, cf. subsection 2, should appropriately demonstrate, describe, and assess the significant direct and indirect impacts of the project on the following parameters: 1) The population and human health...4) material goods...”* Thus, three parameters related to social impacts are brought into play here: Population, human health and material goods. This is an expansion or elaboration compared to the former EIA Act, where §5 subsection 2 did not include human health, since it demanded only that the EIA report should *“demonstrate, describe and assess the direct and indirect impacts of a project on the following parameters: 1) The population...3) Material goods...”*

In Annex 7 to the legislation, which contains demands for the content of the EIA report, some of the above is repeated. The demands include that the EIA report must contain a description of the *“parameters which can be expected to be significantly impacted by the project: the population, human health...”* Likewise, there are demands that the report must contain a *“description of the expected significant impacts of the project on the environment as a result of e.g.:...d) danger for human health, cultural heritage and the environment (e.g. due to accidents or catastrophes)...”* Annex 4 to the EIA Act contains corresponding demands that the significant impact from the project e.g. on population and material goods must be described. Unlike the new Law on Environmental Assessment, the EIA Act also contains demands for a *“description of the socio economic conditions derived as a possible consequences of the environmental impacts”* – a demand that thus will be annulled with the new legislation.

In the EIA guidance the parameter ‘the population’ is described as: *“...Anyone whose life might be significantly impacted by the environmental consequences of the project regardless of the distance from the project. The population can thus include people living far away from the project, if it implies significant changes in known landscapes or recreational spaces”*. (EIA guidance, p. 58) In relation to material goods, the EIA guidance mentions architectonic and archaeological heritage, churches, memorials etc. Also it is mentioned that the assessment should *“also include local values, which in a regional or national perspective does not have a preservation value. This can e.g. be village halls or the local school”* (EIA guidance p. 59). Besides these two categories of impacts, the EIA guidance mentions in relation to traffic, that traffic safety must also be

assessed, and in relation to landscape that special emphasis should be placed on “...the possibility to move around in the landscape and whether the project will be a hindrance or barrier for the public’s access to nature and landscape” (EIA guidance, p. 59). It is interesting to note that the description of socio economic impacts, which is annulled with the new legislation, includes issues such as “the social structure and trade and industry in an area, including impacts on the revenue base for third parties as a consequences of the expected impacts” (EIA guidance, p. 59-60).

In order to determine whether a project listed in Annex 2 to the legislation must undergo an EIA (the screening), a number of criteria have been set out in Annex 6 to the legislation. Part of this is consideration for the “risk for human health (e.g. due to contamination or water or air)” and for the vulnerability of the location among other things whether it is placed in “densely populated areas”. This is another elaboration compared to the EIA Act, where it is stated in Annex 3 that considerations should be made regarding the capacity of the area including “densely populated areas”. Likewise according to annex 3 to the EIA Act, consideration should be shown for “the extent of the impacts (geographical area and the number of people affected)”. The EIA guidance stated that these criteria emphasise the importance for assessment of significance of how many people might be affected by a negative impact (EIA guidance, p. 50). In the EIA guidance, densely populated areas are interpreted as: “Densely populated areas will normally be urban areas or areas with holiday homes”. Here it should be taken into consideration whether areas designated for sensitive purposes such as housing or institutions can continue to be used for these purposes. Further, it is mentioned in relation to the screening that where “noise, light or heat can affect the use of neighbouring areas, and the nuisances could hinder or limit the planned or actual use of the neighbouring areas” the project will often be assigned a compulsory EIA (EIA guidance, p. 43). In the EIA guidance, the use of thresholds for e.g. noise and smell is emphasised in relation to the screening, since “the guiding thresholds for noise is intended to secure that the majority of a population will not be strongly disturbed by the noise in question at a level below the threshold” (EIA guidance, p. 39). If the thresholds are exceeded the impact is usually assessed as significant – and thus cause for carrying out an EIA.

### 3.2 SUMMARY

In the legislation and guidance a range of options are given for including social consequences in EIA. Below in table 3.1 a summary is shown based on the new Law on Environmental Assessment divided into categories of social consequences defined in the first sub-report in the VVMplus project<sup>3</sup>. Beyond these impacts that are specified in the documents, the parameter *population* is not elaborated as to which impacts can be included. This can be seen as an open opportunity to include the breadth of social impacts.

Categories of social impacts	Possibility for assessment of impacts on:
Way of live	Public access to landscape and nature Recreational areas

<sup>3</sup> See Larsen and Nielsen. 2016. *VVMplus delrapport 1: Kortlægning af integration af sociale konsekvenser i VVM-praksis*. Department of Planning, Aalborg University

	Limits to use of areas
<i>Culture</i>	
<i>Local community</i>	Local values such as village hall and school
<i>Political system</i>	
<i>Environment</i>	Nuisances from noise, light and heat Changes in known landscapes
<i>Health and well-being</i>	Human health
<i>Personal and property rights</i>	Limits to use of areas
<i>Fears and hopes</i>	Traffic safety, risk of accidents and catastrophes

Table 3.1 Overview of specific social impacts that are mentioned in legislation and guidance, and thus are explicitly feasible to include in EIA

In the category *Environment* in table 3.1 it should be mentioned that there are many possibilities for including the impacts of the project on the environment, e.g. in the form of landscape, groundwater and smell. Here are only included those that, in the documents, are related directly to impacts on people.

In relation to assessment of significance of social impacts, it is evident from the EIA guidance that this can include the number of people affected and whether thresholds are exceeded.

## 4. RESULTS: POSSIBILITIES AND BARRIERS

The results of the analysis of the interviews are presented in the following sections by reporting on the views and statements of the interviewees. As an introduction the question about definitions of social impacts is addressed, followed by the main analysis of 'possibilities and benefits' and 'challenges and barriers'. The analysis is rounded off by presenting the respondents' reflections regarding approaches to including social impacts in EIA.

### 4.1 DEFINITIONS OF SOCIAL IMPACTS

Two respondents point directly at the difficulty of defining social impacts as a barrier for inclusion of social impacts in EIA. One respondent states that a challenge is that *"many issues can be addressed, but people can always say it is not enough"* (Legal expert).

Generally, the social impacts mentioned by the respondents seem to fall within four categories:

- Socio-economic impacts, such as on property prices and job creation
- Environmental impacts on humans, such as noise and visual impacts
- Health impacts, such as risk of cancer
- Impacts on culture, everyday lives, and fears and hopes

Some respondents define social impacts as impacts on humans, and emphasising that the impacted public needs to be part of defining social consequences. As one respondent states: *"How would something external influence my daily life"* (Developer). One respondent emphasises the need to focus on concrete and specific issues in order to detail the assessment, such as land use or recreational issues, but that *"resistance alone is not an impact"* (Consultant). Some respondents primarily speak of social impacts as positive social impacts and the possibility to *"leave a positive footprint in the community"*, also explicitly making use of the existing benefit schemes and possibilities for co-ownership provided within the Renewable Energy Act. This hints at an understanding of social impacts that do not only comprise of adverse impacts, but also the possibility of including and assessing potential positive effects in an appraisal.

One respondent states that the social impacts are de-emphasised compared to other impacts: *"The EIA-report can be very long with focus on e.g. the bats, and not the people who live there."* (Planner) At the same time, two respondents speak about a development in the concepts, where dealing with social impacts will become more common practice. As one respondent states, *"there is a new box of social impact assessment, and seeds are beginning to blow across the fence"* (Consultant).

### 4.2 CHALLENGES AND BARRIERS FOR INCLUSION OF SOCIAL IMPACTS

Below the main challenges and barriers found in the interviews are reported. These include legal barriers, lack of competences and tools, no one-size-fits-all solutions, timing, communication, vulnerability to discussions and conflicts, lack of time and resources.

*Legal barriers*

Three respondents mention as a barrier that they find no specific demands in legislation or from authorities for including social impacts and early engagement, which somewhat contradicts an earlier argument saying that EIA legislation already contains social impacts. This may also hint at definatory obscurities of social impacts for practitioners. As one respondent puts it *“probably the most important barrier in practice is that there is no demand to integrate social impacts. If the demand is made, the practitioners will figure out how to meet it”* (Consultant). Two respondents mention that in the EIAs there is a strong focus on living up to the demands in legislation and that it is difficult to include something that is not supported by legislation or guidelines. Another interviewee states that there is no clear demand from the municipalities to conduct a detailed socio-economic impact assessment. One respondent states that the lack of demands should not be a barrier to inclusion of social impacts. Another respondent links the lack of demands to the cross-disciplinary character of the social issues, stating that *“the environmental authorities are in charge of EIA and social impacts are not their home ground”* (Consultant). This entails a lack of competences, authority and instruments and a need to work across several administrative entities.

#### *Competences and tools*

As touched upon in introduction to this part of the report four interview respondents point towards a lack of tools, experience and competences as a barrier for inclusion of social impacts. Specifically, respondents point to lack of competences and tools for describing, assessing and mitigating social impacts, and two respondents mention the fact that social impacts cannot be quantified and that there are no baselines or thresholds to assess them against. There is also a more fundamental issue of the professional approach one respondent mentions the technical approach as a barrier for including more non-technical values: *“Many EIA professionals have a technician’s approach – it is their professional foundation. Thus there can be concerns about opening up for discussions and more emotional issues; this is viewed as being something for the politician and not the technician, but they are valid concerns and would not be swept off the table.”* (Legal expert)

#### *One-fits-all solutions*

Two interview respondents emphasise that it is a challenge that the relevance of social impacts differs from project to project and place to place, and that there are no templates or textbook examples to use as a point of departure. At the same time two respondents mention the current inflexible approach to EIA, as a barrier for including social impacts in the EIA.

#### *Timing*

Two respondents mention different aspects of timing as challenging to the process. One is that it is generally difficult to predict the social impacts at a very early stage of the project, as a specific example the local economic impact is difficult to predict before the tendering process and the distribution of shares, which takes place after the EIA stage. Another issue of timing is that the benefit schemes only come into play after the EIA stage when the project is approved. At this stage in the planning process sometimes the politicians do not want to spend time and resources on using the benefit schemes (the project is approved anyway), and the public tend to forget the connection between the benefits provided and the wind turbines.

#### *Communication*

Several respondents mention different aspects of communication, particularly with citizens, as challenging. One thing mentioned is the written communication in the form of the EIA report, where the often fairly technical language is a problem in terms of effectively communicating social impacts. As stated by one respondent: *“Reading a 300page report is not helpful, it’s easier to follow your neighbours”* (Consultant). Part of the challenge is also the ‘translation’ of impact to something that is meaningful to the citizens, as stated by another respondent *“Ordinary people do not know about thresholds and what they entail, they worry about e.g. how noise will affect their hearing”* (Legal expert). The other aspect is the more direct communication and interaction with local citizens. One respondent mentions that it can be a challenge when you do not have a good contact and sense of the local communities. Another stated, in turn, that it is a great advantage when the proponent has good contact with the local communities. The lack of good contact to the local communities could be part of the barriers mentioned earlier, such as that of finding out how worried people really are about social impacts, creating trust, creating a space to discuss social impacts, identifying the critical elements in a community who are stirring things up negatively and getting citizens to engage actively.

#### *Vulnerability to discussions and conflicts*

Another issue mentioned by two respondents is the fear of opening up for inclusion of social issues because of the risk of opening up for political statements, conflicts or complaints. As one respondent puts it *“It is a barrier that the authorities sometimes hinder inclusion of social impacts because it is politically sensitive. Instead it should be presented openly to the public and politicians”* (Consultant). According to another respondent, this behaviour could be based on a wish from the politicians to see the project honoured. A similar issue is one respondent stating that the impacts have to be specific and not uncertain otherwise it makes the assessment vulnerable. One respondent points out that they choose to not deal with property value in the EIA, as it opens up for a discussion regarding compensation scheme which follows its own separate course, and is viewed as very complicated.

#### *Time and resources*

Three respondents mentioned the lack of time and resources as a barrier to inclusion of social impacts.

### **4.3 POSSIBILITIES AND BENEFITS OF INCLUDING SOCIAL IMPACTS**

The main possibilities and benefits found in the interviews are reported below. These relate to legal possibilities, acceptance, engagement, transparency, a focus on positive impacts and benefits, the influence on decision-makers, and experiences and competences.

#### *Legal possibilities*

It is pointed out by three respondents that the EIA and the legislation for EIA already contain social impacts including impacts on cultural and historical heritage, population and material goods. As one respondent puts it: *“EIA is already a social instrument”* (Legal expert), which may then hint at a mismatch between the legal possibilities and practical implementation. One respondent points out that there are differences in how legislation responds to different impacts. For some impacts legislative tools exist that can help us deal with them, and then we have to deal with them (e.g. noise through environmental permits). For other impacts this is not the case (e.g. peoples hopes and fears) and then



we do not have to deal with them, but can possibly do something to deal with them. The respondent points out that *“we should not exclude anything the citizens point to. We have to look at not only the things we can remedy directly, but also all the other things. We can still address and work with them – categorise, answer”*. (Legal expert) Regarding legislation, one respondent also stated that in her/his perspective the EU commission, who are behind the EU Directives that regulate Danish legislation, would support an integration of environmental and social issues in the EIA process, which is seen as a possibility of strengthening the inclusion of social impacts.

#### *Acceptance*

It was stated that the consideration of social impacts can help increase acceptance, in particular at earlier project stages and avoid some local resistance, and *decrease the risk of local disputes* (Planner). In turn, neglecting an analysis of social impacts may well lead to criticisms of the process.

#### *Engagement*

The consideration of social impacts is also viewed as closely related to public participation and involvement of affected local communities. The respondents view better inclusion of social impacts as an opportunity for better engagement, and a *possibility for a dialogue with the citizens* (Consultant) in general as the *whole process needs to be closer to the people*, and to get the sceptical neighbours on-board. Mandatory early engagement on social impacts can help point out wishes, desires and concerns of local communities while searching for solutions and establishing new pathways. Some of the respondents suggest, that this can involve brainstorming meetings with local politicians and citizens. Dialogue and engagement can provide a basis for overcoming the separation between laypeople and experts, or *to break the ‘us and them’ relationship*, as one interviewee puts it (Planner). A dialogue can create a reciprocal *dependence where the parties cannot do without each other’s contribution* (Planner), which should form the basis for the decision-making process. As one planner states, this can go hand in hand with some sort of community empowerment, *where citizens become involved in the process and become experts about what the social impacts are* (Planner). Thus, this implies that the understanding of social impacts cannot be fully achieved without a thorough consideration of local knowledge.

#### *Transparency*

Similar to the positive effects emerging from the interrelationship with improved engagement, an attentive consideration of social impacts can also ensure a greater transparency of the process. Several respondents highlighted a positive relationship between a detailed discussion about social impacts and an improved transparency of the process and decision. This does not only include a one-sided provision of more information for the sceptic people, but also a proper feedback mechanism so that people can see that ‘they are being heard’. Greater transparency should enable people to be better prepared for the subsequent process and to help them understand the underlying rationales of a project as well as its costs and benefits (i.e. the schemes anchored in the RE Act). In that context, another respondent stressed the importance of an independent municipality when it comes to compensation measures in order to ensure some transparency of the involved actors and their interests and practices. In general, the integration and discussion of social impacts in the EIA allows for a public debate *to get it out in the open* (Consultant) and to ultimately prevent the formation of myths and a loss of control. As a developer puts it, an appraisal of both positive and negative impacts can

help people *to better see what they can get out of the project and how they can benefit* (Developer).

#### *Focusing on positive impacts and benefits*

As indicated in the previous section, a thorough discussion of social impacts does not have to exclusively include adverse impacts, but should also take positive effects into account, as emphasised by all interviewees. A social impact can also be something positive as the assessment of social impacts in the EIA can provide more clarity for instance about local benefits of the project. The respondents see a discussion of positive effects and benefits as a possible part of the EIA process. Supply chain benefits through the employment of local work and business were mentioned as one aspect that could be handled in more detail by means of a tendering process. A dialogue on positive social impacts can also help to sketch out the scope of mitigation measures, whereas *a benefit for the proponent must be the possibility to propose a more strategic intervention and thus more cost-effective mitigation measures* (Planner). However this also shows that a few interviewees also tend to confound potential positive effects emerging from mandatory compensation and mitigation measures enshrined in the RE Act with indirect positive impacts and benefits. However, legally required compensation and mitigation measures should not be confused with an assessment of the direct and indirect positive effects that a project might entail.

#### *Influence on decision-makers*

Several respondents stated that a social impact assessment facilitates and supports the political decision-making process. An integration of social impacts of renewables can also help inform the decision-making process by supporting the politicians in making a considerate and well-founded decision. The respondents believe it can help them in seeing both the negative and positive impacts of a project. The EIA report is still deemed important for politicians, but they *could work with a better socio-economic assessment to have something to lean their decisions on* (Consultant), to form *proper arguments* (Consultant), and to *defend and position themselves on a solid knowledge basis* (Planner). One respondent underpins this by emphasising social impacts as an important case where political judgements are made and as an issue of importance between the local or national politicians and their citizens. Thus if *“you hide away the social issues, you miss out on them as a political question”* (Legal expert). Putting more emphasis on the relevant sections in the EIA report on social and visual impacts can also ensure a greater attention of politicians for these parts (Planner). Reversely, a stronger focus on and demand for assessment of social impacts from politicians could help boost the inclusion of social impacts in EIA. As stated by one respondent: *“One way of strengthening the inclusion of social impacts could be a political goal of increased focus on the social, which is often skimmed over”* (Planner). Another respondent has already experienced this in effect, where the politicians for a specific wind turbine project demanded that the proponent must examine social impacts.

#### *Experiences and Competences*

One interviewee stressed the advantage that SIA is an internationally well-known tool, and that there are professionals in Denmark who have worked with and have experience with SIA from international projects. In some instances when an international proponent is involved in project in Denmark, they might demand a distinct Social Impact Assessment as these are often used in other parts of the world.

#### 4.4 APPROACHES TO INCLUSION OF SOCIAL IMPACTS

During the interviews some respondents also touched upon approaches to how social impacts could or should be included in EIA. Here we have reported on the two main issues mentioned: Communication and providing information, and engagement.

##### *Communication and providing information*

Several respondents argue, that information about the social impacts should be provided both to the public and politicians. One interviewee also states the importance of not “*addressing feelings with feelings*” but instead focusing on explaining the project (Developer). Some respondents point to the need for new ways of providing and gathering information, e.g. arranging visits with local residents at other similar facilities, and thus providing engaged citizens first hand experiences. One respondent emphasises that the desire for better communication, is also rooted in a wish to provide information about both negative and positive impacts as well as the benefit schemes, so that people are properly prepared for the hearing phase.

##### *Engagement*

Several respondents touch upon the need for new ways to communicate with the public. As one respondent puts it: “*We have to do something completely new in the communication considering the effective resistance*”. (Consultant) Two of the respondents mention the importance of early communication compared to the usual approach: “*We would like to have the time and possibility to have a dialogue about good solutions, so that we do not have to spend time justifying the plans*” (Planner). One respondent points at the need for better tools to make it easier for the public to follow the process, as not everyone knows it and can navigate it easily. Two respondents point at specific methods, discussing social impacts at public meetings, and using local focus groups to scope the EIA and determine what is valuable in the local area.

## 5 CONCLUSION

On the basis of the analysis presented in this report, it can be concluded that the Danish legislation offers opportunities to include social impacts in EIA. Part of this is that impacts on, amongst other things, “*the population, human health and material goods*” should be assessed. These terms however are quite broad, and the legislation and guidance do not specify very much what impacts on ‘population’, ‘human health’ and ‘material goods’ cover in practice, and how they should be assessed.

The study infers from the analysis a range of possible barriers and challenges for working with social impacts in EIA in practice:

- Clear definition – The lack of clear definitions and demarcations of what social impacts are.
- Legal barriers – The lack of clear demands to include social impacts in EIA and the lack of guidance for how to work with social impacts in EIA
- Competences and tools – The lack of competences and tool among practitioners to work with especially the very intangible social impacts.
- One-size-fits-all solutions – Due to fact that there are no one-size-fits-all solutions for integrating social impacts, their relevance and characteristics will vary from project to project combined with the lack of regard for social impacts in the current approaches to and templates for EIA.
- Timing – Difficulties predicting social impacts and working with benefit schemes at the early EIA stages.
- Communication – Challenges of communicating especially with citizens, both through the written report and having a good direct contact with the community due to the structure of the EIA.
- Vulnerability to discussions and conflicts – That inclusion of social impacts makes the EIA vulnerable to discussions and conflicts challenging the process and implementation.
- Time and resources – A lack of time and resources to work with social impacts.

The study also infers from the analysis a range of possible benefits or possibilities of working with social impacts in EIA in practice:

- Acceptance – Working with social impacts is supposed to lead to a higher level of acceptance of RE projects.
- Engagement – Working with social impacts might provide opportunities for better and earlier engagement with the public.
- Transparency – Working with social impacts might lead to an improved transparency of the process.
- Focusing on positive impacts and benefits – Working with social impacts might provide opportunities to work more systematically with providing and assessing positive impacts for local communities. However, there is the problem that mandatory compensation and mitigation measures are confused with benefits, which should be prevented in practice.
- Influencing decision-makers – Working with social impacts can improve the support for the decision-making process. Likewise the decision-makers can be important drivers for working with social impacts.
- Experiences and competences – There is a possibility to draw on the experiences and competences of professionals who have worked with social impact assessment internationally.

Overall the impression from the analysis is that the inclusion of social impacts in EIA of RE-projects is possible and could result in various benefits for the process and project. However there are also a variety of challenges and barriers to be tackled for social impacts to be included in EIA in practice.