

# **Expropriation Of Land Rights For Implementation Of Mega Infrastructure Projects.**

*- The case of the Fehmarn Belt connection between Denmark and Germany*

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**Key words:** Participatory processes, expropriation, land tenure rights, mega infrastructure projects, economic development.

## **SUMMARY**

Security of tenure is now placed at the top of the 2030 Global Agenda. This also relates to the issue of safeguarding land rights that is often at stake when implementing major infrastructure projects. There is an oppositional relation between security of tenure rights on the one hand and on the other hand a (public) request to acquire land for infrastructure projects that in the longer term will create economic value for the entire community. This is a paradox because both issues contribute to achieving the Sustainable Development Goals (SDGs). The paper describes the experiences implementing a Northern Europe mega infrastructure project using a participatory approach to expropriation of land rights while also paving the way for economic development.

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## **1 INTRODUCTION - SECURITY OF TENURE RIGHTS IN DENMARK**

Denmark has a long historical tradition of registering and safeguarding tenure rights. The first registrations of real estate took place already in the 1200s. The system being used today has been applied and continuously maintained and upgraded over approximately two hundred years. The current system is highly developed covering detailed mapping, boundary marking, and registration of land and property rights.

In other words, tenure rights are benefiting from extensive protection in Denmark, and the safeguarding of tenure rights is deeply rooted in the constitution talking about "inviolability of tenure rights".

The Constitutional Act of Denmark states in Article 73 "The right of property shall be inviolable. No person shall be ordered to surrender his property except where required in the public interest. It shall be done only as provided by statute and against full compensation." (Danish Parliament, 1953). So the inviolability of land rights are combined with the opportunity of compulsory purchase – but only in the public interest and against full compensation. Implementation of major infrastructure project are considered such a "public interest" However, the constitution does not describe how this kind of "violation" should occur. These matters are regulated in other (sectorial) legislation.

Denmark is a stated democratic society that comes to an expression here: The affected property owners are in an ongoing manner involved in the process, where a line of law provisions ensure that the affected property owners are heard and, also, that an appropriate (full) compensation is provided.

Denmark has thus a long-standing experience, both when it comes to safeguarding and when it comes to violation of tenure rights. These experiences are valuable, for taking a closer look at the management of the paradox that the law on the one hand is safeguarding tenure rights and on the other hand is willing to violate these rights in order to implement publicly relevant infrastructure project. However, both attitudes are in fact prerequisites for achieving the Sustainable Development Goals (SDGs).

In order to safeguard existing land rights, a proper and inclusive process is essential. Such a proper and inclusive process should include:

- Assessment of whether the project is of a significant public interest and has a societal value that exceeds the respect of private tenure rights and thus justifies expropriation.
- Ensuring that interventions in private properties are limited and hence not more extensive than absolutely necessary.
- Ensuring that land owners are involved in an ongoing dialogue and receive full and fair compensation for what is expropriated.
- Attempts to make voluntary agreements rather than expropriation.

When agricultural land is expropriated it can cause certain issues, as the land represents the actual livelihood asset for a farmer. The balance lies in ensuring that farmers are compensated in such a way that they can continue to sustain a living from their property or alternatively be fully economically compensated if their agricultural farm is purchased

## 2 THE FEHMARN FIXED LINK:

Currently, a large mega-infrastructure project is carried out in Denmark named the Fehmarn Fixed Link. The Fehmarn Fixed Link is a tunnel project from Denmark to Germany.

By building the tunnel a transport corridor is formed that will connect Scandinavia with the rest of the Europe. It will thus improve the North- South bound connections through Europe and become a part of the Trans-European corridor Scandinavia- Mediterranean.



*Figure 1: The corridor Scandinavia- Mediterranean along with EU's eight other Trans-European corridors. The arrow marks at the tunnel connection (source: "Green String Corridor", 2014).*

Next to the tunnel itself, the project also includes upgrading and construction of roads and railways respectively on the German and on the Danish sides. The project will therefore form a

connection between regions of Northern Germany and Southern Denmark, and further to the existing bridge connecting Southern Sweden to Denmark.

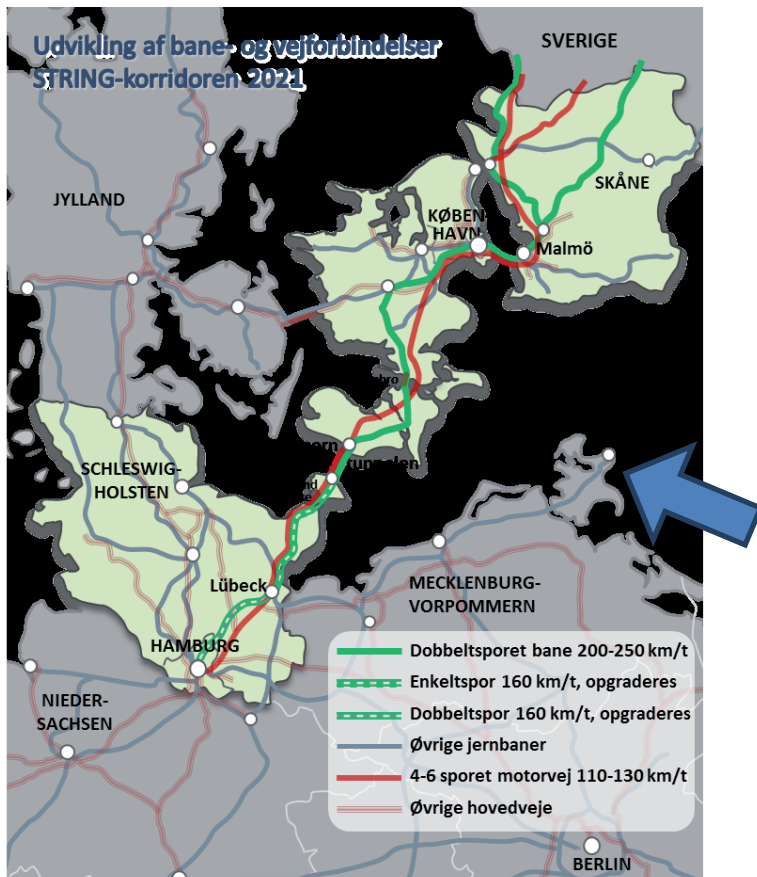


Figure 2: The planned road and lane infrastructure in relation to Femern Project. The arrow marks the tunnel connection. The coloured land areas respectively in Sweden, Denmark and Germany with the tunnel will form an interconnected region (source: “Green String Corridor”, 2014).

In a regional perspective, the tunnel connection will form a united region covering approximately eight million inhabitants. It is expected that a lot of new companies will be established in the region due to improved infrastructures. The travel time for train passengers between Copenhagen and Hamburg will be shortened from 4,5 hours to 2,5 hours. Furthermore, the tunnel will be an extensive gain for the freight trains between Germany and Denmark which will save a detour of approximately 160 km. Besides the gains to the trade and industry, it is expected that the tunnel will have a significant impact on the cultural exchange between Germany and Denmark. It is also expected that tourism will have a significant gain of the connection. Hence, it is the case of an infrastructure project that is underpinned by very strong society interests. This is the argument for the tenure rights giving way for the tunnel to be developed on both the Danish and the German sides.

At 18 kilometres in length, the tunnel will be the world's longest immersed tunnel for both trains and cars. In order to establish the tunnel, a trench must first be dug into the seabed. The trench will be 60 meters wide, 16 meters deep and 18 kilometres long. The tunnel elements, pre-cast on land, will be 217 meters long and weigh 73,000 tons each. The construction budget is approximately 8,3 billion USD. The project is supported economically by EU and, in addition, by the future users through access tolls. The expected payback time is 36 years.



*Figure 3: The future tunnel abutment on the Danish side (source: “Femern A/S”)*

To build the tunnel, large areas of private owned land are required on the Danish side of the project. The areas are to be used for the land abutments of the tunnel, a production area for tunnel elements, a temporary port and temporary accommodation for several thousand workers. In total, the compulsory purchase will include a combined area of over 4 square kilometres - primarily agricultural land - spread over a large number of properties.

In this paper the focus is on the Danish side of the tunnel project. For the sake of completeness, it should be mentioned that the project is currently awaiting approval from the German authorities. On the German side of the project, there has been a large opposition amongst private parties and NGOs, who, amongst other things, are critical of the environmental consequences

of the project. Thus, at the time of writing, the construction work has not been started. According to the current time plan, the tunnel is expected to open in 2028.

### **3 LAND ACQUISITION THROUGH PARTICIPATORY PROCESSES.**

Before a project like this major tunnel project is started, the Danish legislation prescribes that an assessment of environmental consequences has to be carried out (EIA- Environmental Impact Assessment). It is to be understood in a very broad context, so the comprehensive assessment analyses all imaginable consequences for plants, animals and people. The work of analysis is completed and gathered in a report with appertaining attachments that all together cover over 11.000 pages.

As a part of the report, consequences of the affected real estates are covered. It is accounted here, how many real estates are to be expropriated entirely or partly and consequences for owners of the remaining real estates are discussed. This covers also more general consequences for the inhabitants of the surroundings. For example, project's consequences on inhabitants' health and life quality during both the construction phase of approximately 6 years and the following operational phase, are being discussed.

The general public has been continuously involved in relation to the environmental reports: regarding starting-up, the general public could provide input for the upcoming environmental assessments. After the completion of the environmental report, a meeting took place with the directly affected property owners. Here the property owners got an exclusive opportunity to ask questions and comment on the reported consequences for the real estates. It was only after this meeting, the general public got an opportunity to comment on the report. The work with the procurement of the environmental report and the appertaining engagement of the inhabitants took place in the period between 2010 and 2013.

For many years, the property owners in the project area had the expectation that the project is going to be implemented. Yet, there has been a significant uncertainty regarding the projects final layout. Some of the owners are not willing to live in such an uncertainty and have expressed a desire to leave the area. Unfortunately, it is almost impossible to sell a property that is affected by such an upcoming project, while the expropriation first takes place directly before the beginning of the construction work. The owners are therefore trapped in an unlucky situation.

In order to help these property owners, the Danish legislation gives an opportunity to expropriate the properties long before they are needed for implementation of the project. It requires a request from the property owners themselves and certain requirements must be fulfilled. The expropriations are carried out by a special commission - the Expropriation Commission - which is independent of both the project authority and the landowners. It is the same Expropriation Commission that afterwards takes care of the general area acquisitions for the project.

The Fehmarn Fixed Link project has in such a way purchased more than 20 properties. Most of the properties are residential houses, but also companies and agricultural properties are acquired.

#### **4 INTEGRATION OF LAND CONSOLIDATION.**

Most of the already acquired land will be used for the project, but some areas also lie outside the project area. The plots that are not used for the project are included in an organized land consolidation process in which the farmers themselves play an active planning role. The land consolidation process means that the remaining farmers will overall not lose agricultural land in terms of size and, in addition, they achieve a more efficient agricultural production structure due to a more functional location of the agricultural land in relation to the production buildings.

Experience shows that this approach means that farmers can, at an early point of the process, continue to operate efficiently and undertake profitable agriculture even though the implementation of the infrastructure project is ongoing. This provides a sense of security and a positive attitude to the project.

The Expropriation Commission approves the land consolidation and allows it to be included in the subsequent expropriation process. In summary, this process includes the following activities:

- Preparation of comprehensive material in which the extent of the expropriation is clearly stated for each property.
- Conduction of meetings with the land owners at the respective properties where the land acquisition activities are reviewed and the authority illustrates the scope of the project for the Expropriation Commission. Based on this, it is assessed whether the expropriation of the land rights are reasonable in relation to what is to be achieved.
- Following the initial meeting and comments from the landowners, there may be a need for adjustment of the project.
- Conduction of final meetings at the respective properties where the final land acquisition activities are reviewed with the landowners. At this meeting, the compensation for the expropriated land is also determined.

In determining compensation, both parties are involved: The Expropriation Commission listens to the views of both the landowners and the authority and attempts to make a settlement through a voluntary compensation agreement. If an agreement cannot be reached, the Expropriation Commission will determine the compensation that is considered to be in accordance with the value of the land. After this, it is possible to appeal to a higher and independent authority. This process is free of costs for the landowners. Subsequently, it is possible to appeal to the ordinary judicial system.

#### **5 FEHMARN FIXED LINK AND THE 17 GLOBAL GOALS.**

As stated in the introduction, the establishment of infrastructure is significant for achieving the Global Goals. This applies also to the Fehmarn Fixed Link. Hereinafter, it is discussed, which Global Goals to a particular extent will be supported by the project:



Goal 9: Industry, innovation and infrastructure.

According to this development goal, regional and cross-border infrastructure is to be established to support the economical development and human welfare (target 9.1.).

Femern project is an example of such a project: With an expected lifetime of at least 120 years, the tunnel will for many years get a decisive importance for transportation between Germany and Scandinavia.



Goal 11: Sustainable cities and communities.

This goal covers, amongst other things, construction of safe and sustainable transportation systems (target 11.2). Moreover, the goal is about improved economical and social connection between cities and rural areas (target 11.a).

Besides, Fehmarn Project itself forming a significant transportation system, it will influence formation of an interconnected region across Denmark and Germany. The areas of land the corridor is passing through, will gain a much better access to urban areas in comparison to today.



Goal 14: Life below water.

According to this goal sea pollution is to be prevented (target 14.1.) and sea environment is to be administrated in a sustainable manner (target 14.2.).

As a part of the preparations for the tunnel project, extremely comprehensive environmental assessments are carried out. These have also included specifications of which prevention precautionary measures are necessary for compensating project's environmental effects. The project is therefore true to the intentions of the goal No. 14. The manner to address the environmental matter can definitely be used as an inspiration, when future mega projects are to be prepared in other places around the Globe.



Goal 15: Life on land.

According to this goal, a line of considerations to the eco-system on land is to be carried out (target 15.1). Among these, natural habitats must be safeguarded permanently (target 15.5).

As mentioned in goal No. 14, extensive environmental studies have been carried out in relation to the preparations. In order to compensate for the deterioration



of nature caused by the project on land, a replacement nature is established. It could be, for example, new lakes in the neighbourhood of the project. The implementation of the project thus takes place in compliance with goal No. 15.



Goal no. 16: Peace, justice and strong institutions.

According to this goal, inclusive, participatory and representative decision-making processes must be ensured (target 16.7).

During the planning phase, the affected citizens have been involved in a number of sub-processes. For example, in relation to the environmental assessment, but, in particular, in relation to the expropriation of properties for the project. Such a citizen involvement is completely normal, when infrastructure is to be established in Denmark, and a significant part of inhabitant involvement is rooted in legislation. The process of handling the inhabitants in relation to the project therefore meets the intentions of Goal 16.

## **6 CONCLUDING REMARKS.**

Experiences from the applied participatory process show that expropriation of even very large land areas for mega infrastructure projects can be done in a manner that takes all parties' interests into account.

The use of land consolidation ensures that farmers can continue to farm efficiently. And the subsequent expropriation process is to a large degree based on citizen involvement and inclusive dialogue. The process thus takes both the interest of securing land tenure rights and the need for implementation of infrastructure projects into account.

In this way, the case of the Fehmarn Fixed Link shows how these two issues are not necessarily contradictory. In fact, they are both essential prerequisites for achieving the 2030 Global Agenda.

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