



FOLKETINGET
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FOLKETINGET
RIGSREVISIONEN

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The government's strategy to reduce traffic noise

1. Introduction and conclusion

1.1. Purpose and conclusion

1. The report concerns the Ministry of Transport and the Ministry of Environment's strategy to reduce traffic noise.

2. Traffic noise can cause health problems. According to the World Health Organization (hereinafter the WHO), traffic noise is the second leading environmental problem – after air pollution – that affects people's health in Europe. Danish and international research has demonstrated that there is a link between traffic noise and a number of diseases such as an increased risk of hardening of the arteries (a precursor to blood clots), type 2 diabetes and sleep disorders. In 2003, the Danish Environmental Protection Agency estimated that every year between 200 and 500 citizens in Denmark died prematurely from diseases caused by road noise.

Traffic noise includes noise generated from roads, railways and airports. Recent mapping from 2022 shows that at least 952,000 citizens are affected by noise from roads, railways and airports. Road noise is the biggest problem. Around 943,000 citizens are affected by road noise and around 139,600 of these are severely affected. Nine out of ten dwellings that are extensively exposed to noise pollution are situated along the municipal roads.

3. According to the noise mapping executive order (hereinafter the executive order) issued by the Ministry of Environment, a number of authorities are required to work out noise maps and action plans at least every five years. The noise maps are intended to provide an overview of the locations where traffic generates noise and its magnitude, while the actions plans are intended to outline the measures the authorities will take to manage traffic noise. Together, the noise maps and action plans serve as a foundation for preventing and detrimental effects of noise as well as sharing with the citizens the initiatives the authorities plan to launch. The executive order specifies a number of requirements regarding the content of the noise maps and action plans.

4. The implementation of the strategy to reduce traffic noise involves various government, regional and municipal authorities.

Government authorities in the area of transport are the department of the Ministry of Transport, the Danish Road Directorate, *Banedanmark* (agency responsible for maintaining the Danish railway system), *Sund & Bælt* (agency responsible for the construction and maintenance of tunnels and bridges in Denmark, the Oresund motorway that connects Denmark to the Swedish motorway system) and *Metroselskabet* (agency responsible for the construction and operation of the Danish metro system). The department has overall responsibility for overseeing that the action plans worked out by the underlying authorities comply with the requirements of the executive order. The task of working out noise maps that require professional expertise has been delegated to the underlying authorities.

In the action plans, the authorities are required to specify the order in which the planned initiatives will be launched over the next five years. Ultimately, however, it is primarily the relevant alternating signatory parties in the area of transport that decide which of the initiatives that should be implemented.

The Danish Environmental Protection Agency can establish limit values for traffic noise. It is also the responsibility of the agency to ensure that the noise maps and action plans worked out by the authorities are complying with the requirements of the executive order to ensure that the data sent by the agency to the European Commission meets the legislative requirements.

Road network

Denmark has a road network of around 74,000 kilometers. Approx. half the traffic is carried by the around 3,800 kilometers of state roads, corresponding to 5 % of the entire public road network.

Noise maps and actions plans must be worked out for metropolitan districts and interconnected urban areas with a population exceeding 100,000. This means that 5% of the municipal road network is mapped, as many geographically large municipalities are not subject to the executive order on noise. The mapping covers around half of the population of Denmark.

The Danish Environmental Protection Agency has worked out noise maps for the municipalities since 2022. It is also the agency's responsibility to issue an environmental permit to Copenhagen Airport and oversee that the airport adheres to the requirements of the permit, including noise reduction initiatives.

Only one regional authority – *Trafikselskabet Movia* (public transport agency) – is required to work out noise maps and action plans.

5. The purpose of the study is to assess whether the strategy adopted by the Ministry of Transport and the Ministry of Environment to reduce traffic noise is satisfactory. The report answers the following questions:

- In what manner has the Danish Environmental Protection Agency established limit values for traffic noise?
- Has the Ministry of Transport and the Ministry of Environment ensured compliance with the requirements of the executive order regarding noise maps and action plans?

- Has the Ministry of Transport and the Ministry of Environment prioritised and implemented the noise reducing initiatives proposed in the action plans?
- Have the Ministry of Transport and the Ministry of Environment incorporated traffic noise into new government-funded construction, expansion and maintenance projects and have they addressed municipal plans for the construction of new buildings situated close to state roads and railways?

6. Rigsrevisionen initiated the study in November 2023 at the request of the Danish Public Accounts Committee.



Conclusion

The strategy implemented by the Ministry of Transport and the Ministry of Environment to reduce traffic noise is not satisfactory. The reason is that several of the requirements of the executive order regarding noise have not been met. This entails a risk that the basis for reducing traffic noise is insufficient and that the citizens will have no insight into the initiatives planned by the authorities.

The Environmental Protection Agency has established limit values for traffic noise

The Environmental Protection Agency has established recommended limit values for traffic noise based on a European-defined correlation between the level of noise and the degree to which people are affected by the noise. The value limits are aligned with the values set in other European countries, operating with indicative limit values. The limit values are legally binding when the municipalities construct new houses and when they are incorporated into environmental permits.

The Ministry of Transport and the Ministry of Environment have not met the requirements of the executive order regarding noise maps and action plans

The majority of the government authorities and Movia have complied with the requirements concerning the content of noise maps. Throughout the investigation period, none of the authorities have consistently adhered to the requirements regarding the content of the actions plans.

The Ministry of Transport can improve its monitoring of the action plans worked out by the underlying authorities as several of them do not comply with the requirements of the executive order.

The Danish Environmental Protection Agency has reviewed all the noise maps and action plans of the authorities but has generally not informed the specific authorities of any failures to comply with the requirements. Rigsrevisionen considers it relevant that the Danish Environmental Protection Agency informs the authorities in this regard in order to improve the quality of the agency's reporting to the European Commission.

None of the authorities have complied with the requirement of the executive order regarding timely submission of noise maps and action plans. As a result of these delays, the Danish Environmental Protection Agency has been unable to report in due course to the European Commission.

The Ministry of Transport and the Ministry of Environment have not prioritized the noise reduction initiatives proposed in the action plans. The Ministry of Transport has implemented the politically agreed initiatives

None of the government authorities have met the requirement of the executive order to specify the order in which they intend to implement the initiatives proposed in the action plans.

The Danish Road Directorate has proposed initiatives to alternating signatory parties to the noise reduction agreements, but it is unclear how the directorate has arrived at the selected proposals. The Danish Road Directorate and Banedanmark have implemented the politically agreed initiatives.

The Danish Environmental Protection Agency has not adequately monitored whether Copenhagen Airport has adhered to the noise standards stipulated in its environmental permit in the period 2015 - 2022.

The Ministry of Transport and the Ministry of Environment have incorporated traffic noise into new government-funded construction, expansion and maintenance projects. However, the ministries have not adequately addressed traffic noise in connection with municipal plans for the construction of new buildings situated close to state roads and railways

All the authorities have incorporated noise reduction initiatives in their planning of new construction, expansion and maintenance projects.

The Danish Nature Agency, the Danish Road Directorate and Banedanmark have not taken adequate action when the municipalities have failed to meet the noise standards when planning new residential buildings situated close to state roads and railways.

When municipalities plan to build new residential buildings along municipal roads, no government authorities monitor whether the municipalities meet the noise standards.

The Danish Nature Agency, the Danish Road Directorate and Banedanmark

Before 2016, the Danish Nature Agency under the Ministry of Environment was responsible for taking action if the municipal planning entailed a risk of leading to additional expenditure for the state for noise reducing initiatives.

In 2016, this responsibility was transferred to the Danish Ministry of Industry, Business and Financial Affairs, which subsequently delegated the responsibility to the Danish Road Directorate and Banedanmark.

In 2021, the Danish Ministry of Ecclesiastical Affairs assumed the responsibility, but the task remained with the Danish Road Directorate and Banedanmark.