



Extract from the report to the
Public Accounts Committee on
the maintenance of national bridges
and roads, etc.

January
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I. Introduction and Results

1. This report is about the Danish Road Directorate's maintenance of national bridges and roads, etc.

2. In October 2002, the government entered a multi-year agreement with Dansk Folkeparti (Danish People's Party) to initiate a reduction of the maintenance backlog. The agreement set the financial framework for the maintenance of the national road network for the period 2004-2007. According to the agreement, an additional appropriation of approximately DKK 1.5 billion was allocated for maintenance in the period 2004-2007.

3. In October 2007, Danish media mentioned that Langelandsbroen (bridge between the island of Langeland and the island of Siø) was kept together by plastic bags and wooden blocks. As a result, the Public Accounts Committee – on their meeting on 10 October 2007 – requested Rigsrevisionen to examine the maintenance of bridges and roads.

In a memorandum to the Public Accounts Committee of 30 January 2008, the Auditor General outlined how the examination would be organized.

4. The expenditure for maintenance of national bridges and roads amounted to just under DKK 1.1 billion in 2007. According to the Danish Road Directorate, the backlog was approximately DKK 1.7 billion by the end of 2007. According to the Danish Road Directorate, the backlog does not at present constitute a safety problem, and bridges and roads have at all times been passable without any restrictions.

5. The calculation of the maintenance backlog is based on the standard condition of the national road network. The Danish Road Directorate defines the standard condition as the state in which there is no maintenance backlog, and the level of maintenance required is considered appropriate. Maintenance includes regular repair of wear and tear, remedy of defects identified in the national road network and replacement of components to ensure that the functionality of the infrastructure is preserved. Maintenance backlog is defined as the difference between the calculated condition of the road network and the financial resources required to restore it to standard condition.

6. The objective of the examination is to assess whether national bridges and roads, etc. are being maintained to a satisfactory level. The examination will answer three questions:

- Has the Danish Road Directorate's maintenance backlog developed as assumed in the multi-year agreement?
- Does the Danish Road Directorate's documentation of the standard condition permit calculation of the maintenance backlog without significant uncertainty?
- Have the Danish Road Directorate and the Ministry of Transport followed up on the maintenance backlog in a satisfactory manner?

Up to 1 January 2007, the Danish Road Directorate was responsible for the management and maintenance of around 1,600 km of national roads. The Directorate took over the responsibility for the former county roads when the municipal reform took effect on 1 January 2007. The Directorate is now responsible for the management and maintenance of around 3,800 km of national roads.

The national road network includes

Bridges:

Large and small bridges, tunnels and road signs, noise barriers, and retaining walls.

Roads:

Motorways, highways, and other main roads.

Area and equipment:

Major and small tasks, like for instance cleaning of the roads, which must be performed to ensure the basic functionality of the road network.

RESULTS OF THE EXAMINATION

According to Rigsrevisionen's overall assessment, the maintenance of national bridges and roads has not been satisfactory. As a result of the multi-year agreement, an extra appropriation was allocated to the Danish Road Directorate in the period 2004-2007 to initiate a reduction of the maintenance backlog. However, the extra appropriation and pre-supposed efficiency improvements did not suffice to catch up with the backlog, which has increased over the period 2004-2007. The Danish Road Directorate states that the maintenance backlog does not at present constitute a safety problem, and bridges and roads have been passable at all times without any restrictions.

This overall assessment is based on the following:

One of the objectives of the multi-year agreement was to initiate a reduction of the maintenance backlog in the period 2004-2007. This did not occur. On the contrary, the backlog has increased.

Developments in the maintenance backlog

- The multi-year agreement included an extra appropriation of DKK 236 million over four years to catch-up with the maintenance backlog, in addition to the funds required to maintain the previous level of appropriation.
- According to the Danish Road Directorate, the backlog increased from approximately DKK 0.8 billion in 2004 to approximately DKK 1.1 billion in 2006, the last year of the old national road network before transfer of the county roads to the Danish Road Directorate in 2007.
- At the end of 2007, the Danish Road Directorate calculated the backlog to at least DKK 1.7 billion, including the former county roads. Among the causes of the increase in the backlog is the fact that some bridges have deteriorated faster than anticipated. The extra appropriation resulting from the multi-year agreement has thus been inadequate to reduce the backlog.

The Danish Road Directorate's performance contract

- At the end of 2003, the Ministry of Transport entered into a performance contract with the Danish Road Directorate. According to the contract, the backlog was to increase rather than decrease during the period 2004-2007, as it was otherwise assumed in the multi-year agreement.
- The Danish Road Directorate's performance contract included a requirement to improve efficiency by DKK 22 million during the period 2004-2007, which did not correspond to the required efficiency gains of DKK 305 million included in the Ministry of Transport's planning basis.

The basis of the multi-year agreement

- According to the Ministry of Transport's planning basis from October 2002, the backlog could be eliminated by 2010 at an unchanged appropriation level, provided that the Danish Road Directorate realized efficiency gains by approximately 2 percent annually, equalling an increase in productivity of DKK 305 million during the period 2004-2007.
- It did not appear directly from neither the multi-year agreement of 22 October 2002 or from the Fiscal Act for 2003, the year in which the agreement was implemented, that efficiency gains were needed to ensure elimination of the backlog by 2010.

It is not possible to document the Danish Road Directorate's standard condition of the national road network in a clear and reliable way. As a consequence, the financial calculation of the maintenance backlog is subject to a significant uncertainty.

Methods applied by the Danish Road Directorate to calculate the backlog

- The Danish Road Directorate's technical systems provide an overview of the physical condition of bridges and roads, etc. The systems show that the safety of national bridges and roads is not in jeopardy.
- The maintenance backlog is calculated according to a quality standard called the standard condition. It is not possible to document the standard condition and therefore the calculation of the maintenance backlog is associated with uncertainties.
- A basic uncertainty concerning the condition of bridges and roads is related to the fact that the Danish Road Directorate is unable to document that it is applying the financially most optimal strategy for maintenance. As a consequence, the estimated backlog may be either higher or lower than stated by the Directorate.

Forecasting the maintenance backlog

- The uncertainty associated with the calculation of the backlog for bridges and roads is also related to the fact that the Danish Road Directorate does not undertake sensitivity analyses to determine the budgetary requirements for the maintenance backlog.
- The Ministry of Transport intends to revise the methods used to calculate the maintenance backlog in order to enhance and develop the transparency and traceability of the calculation methods.

The Danish Road Directorate and the Ministry of Transport have not followed up on the development in the maintenance backlog in a satisfactory manner.

The Danish Road Directorate's management and financial follow-up

- The Danish Road Directorate's finance and management system does not include updated information on the development in the maintenance backlog or information on how appropriations and production planning will affect the maintenance backlog, also in the longer term.

The Ministry's follow-up

- During the period 2005-2007, the Ministry of Transport did not request the Danish Road Directorate to take corrective action in relation to the negative developments in the maintenance backlog and efficiency gains, respectively.