NATIONAL AUDIT
OFFICE OF LITHUANIA
• BRINGING BENEFITS •

MANAGEMENT OF ROAD INFRASTRUCTURE

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No. VAE-13

SUMMARY

The Relevance of the Audit

Lithuanian road infrastructure consists of roads of State and local significance, the total length of which is 85.5 thousand km. The significance of these roads is shown by the fact that on average 10 thousand cars and freight vehicles pass through the country's mainstream roads every day. On average, road transport accounts for more than half (54 %) of total traffic per day, and the road sector accounts for around 6 % of the gross domestic product[1].

In 2016–2019, on average about EUR 620 million is used for the construction, reconstruction, repair and maintenance of Lithuania's roads, while the total length of roads per capita amounts to 30.6 m. In terms of this indicator, Lithuania ranks second among the 25 EU countries that reported data[2].

By its accession to the EU, Lithuania aimed at becoming an integral part of the EU transport network[3]. Major changes have started in the development of the road network: bypasses, new motorways; clear access to trans-European corridors; intersections of different levels were installed; roads are being reconstructed.

Lithuania faces new challenges in the next EU financial perspective: it is planned to reduce investment in road construction and repair, and priority is given to investments in improvement of road technical parameters, the introduction of traffic safety and

[1] 2019 LAKD Activity Report.

[2] Countries that reported EUROSTAT data (2018): Portugal (1.4 m), Germany (2.6 m), Bulgaria (2.8 m), Spain (3.5 m), Romania (4.4 m), Luxembourg (5.0 m), Malta (6.4 m), United Kingdom (6.4 m), Croatia (6.5 m), Netherlands (7.7 m), Slovakia (8.2 m), Poland (11.2 m), Czech Republic (12.3 m), Denmark (12.9 m), Cyprus (14.8 m), Austria (15.7 m), France (16.5 m), Finland (19.7 m), Ireland (20.2 m), Sweden (21.1 m), Slovenia (21.2 m), Hungary (21.8 m), Latvia (30.4 m), Lithuania (30.6 m), Estonia (44.5 m).

[3] Long-term (till 2025) strategy for the development of the Lithuanian transport system approved by the 23/06/2005 Government Resolution No. 692 (repealed on 29/12/2013).

environmental measures and intelligent transportation systems[4]. Taking into account the planned changes, the issues of efficient allocation and use of investments for roads and quality of road works remain relevant.

In order to assess whether the management of road infrastructure ensures efficient use of investments, we decided to conduct an audit of the management of this infrastructure.

The Objective and Scope of the Audit

The objective of the audit is to assess whether the management of road infrastructure ensures efficient use of investments to this infrastructure.

The Key Audit Questions

- whether the formation of road infrastructure policy at the State level is ensured;
- whether road development and maintenance works are properly planned;
- whether road development and maintenance works are carried out in a consistent manner;
- Whether the supervision of quality control of works is ensured.

Audited entities:

- The Ministry of Transport and Communications shapes the state policy in this area, organises and coordinates its implementation;
- The Lithuanian Road Administration (LAKD) implements the State policy of maintenance and development of roads of State significance, organise rehabilitation, maintenance, development, etc. of these roads;
- for the audit, 14 municipal administrations were selected: Birštonas, Kėdainiai district, Klaipėda city, Kretinga district, Marijampolė district, Vilnius district, Šiauliai city, Panevėžys city, Panevėžys district, Plungė district, Radviliškis district, Raseiniai district, Šalčininkai district, and Lazdijai district.

During the audit, we also collected data from the Association "Lietuvos keliai", the Environmental Projects Management Agency under the Ministry of Environment of the Republic of Lithuania, Central Project Management Agency, the Statistics Department of Lithuania, Association of Lithuanian Municipalities, Certification Centre of Building Products, Lithuanian Business Support Agency, Transport Competence Agency, National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania, Vilnius Gediminas Technical University (Vilnius Tech), State Territorial Planning and Construction Inspectorate under the Ministry of Environment, state enterprise "GIS-Centras".

During the audit, in accordance with the procedure established by the Law on Public Procurement, we invited external experts to perform a quality inspection of the

[4] European Commission 28/03/2011 White Paper "Roadmap to a Single European Transport Area. Towards a Competitive and Resource-efficient Transport System" (COM (2011) 144). 2021–2027 EU Funds Investment Programme for Lithuania. Internet access: https://www.esinvesticijos.lt/lt/pasirengimas-2021-2027/2021-2027-m-es-fondu-investiciju-programos-rengimas. European Commission impact assessment document SWD (2017) 362 final "Impact Assessment accompanying the proposal for a Directive of the European Parliament and of the Council amending Directive 92/106/EEC on the establishment of common rules for certain types of combined transport of goods between Member States".

construction works of 16 study sites of the selected 8 roads. The audit was carried out by Vilnius Gediminas Technical University from 20 February to 10 September 2020.

Audited period: 2016–2019. In order to assess changes and to compare data, in some cases, data from previous and subsequent periods were used to gather audit evidence.

Limitations of the Audit

In the course of this audit, we have not assessed:

- The objectives, criteria, sources of funding of the road maintenance and development programme, and their volume, the appropriateness of reporting on the results, as these issues were analysed in the course of the audit[5] in 2019;
- Further continuity of the Road Maintenance and Development Programme, as in 2019 the National Audit Office of Lithuania recommended to the Government[6]: to review the programmes, funds and institutions, funded by the share of taxes and other revenue established in advance by legal acts; to assess the appropriateness and scope of their application and to limit to a maximum the number of such programmes, funds, and institutions. The Government plans to take appropriate actions upon receipt of the assessment of the Constitutional Court: the Government applied to it in 2019 with a request to investigate[7] the compatibility of legal acts[8] with the provisions of the Constitution[9].
- the planning and execution of public procurement in the LAKD and the audited municipalities when organising street and road repair works, as during the audited period the inspections were performed by the Special Investigation Service, the Public Procurement Service, and the Internal Audit Division of the Ministry of Transport and Communications[10].

[5] 01/10/2019 Public Audit Report No. FA-8 "Assessment of Regularity of 2018 Sets of State Consolidated Financial and Budget Execution Reports and Legality of Management, Use and Disposal of State Budget Funds and Property".

[6] Ibid.

[7] 29/05/2019 Government Resolution No 520 "On Referral to the Constitutional Court of the Republic of Lithuania", 03/11/2020 Constitutional Court Resolution No. KT187-N15/2020

[8] The Law on Financing of the Road Maintenance and Development Programme, Article 3, Article 4(1), Article 9, Article 10(2); Law on Environmental Protection Support Programme, Article 3, Article 4; Law on Waste Management, Article 34(2), Article 34(3), Article 34(4); Law on Pollution Tax, Article 10(1); Law on Financial Instruments for Climate Change Management, Article 10(2), Article 10(3), Article 10(4)(3); Law on Forestry, Article 7(2); Law on the Cultural Support Fund, Article 3, Article 4(1), Article 5(1); Law on Physical Education and Sport, Article 16(2), Article 17(2), Article 17(3); Law on the National Radio and Television, Article 15(5);

[9] Constitution of the Republic of Lithuania, Article 5(2), Article 67(14); that the Seimas approves the State budget, Article 94(4); that the Government prepares a draft State budget, Article 129 and Article 130; that the draft State budget is established by the Government, Article 131; and the constitutional principle of the rule of law.

[10] Internet access: https://www.stt.lt/naujienos/7464/teismui-perduota-byla-del-neskaidriai-organizuotu-viesuju-pirkimu-keliu-remontui:2640; https://vpt.lrv.lt/lt/teisine-informacija/teismu-praktika/lietuvos-aukscsiausiojo-teismo-praktika; https://vpt.lrv.lt/lt/ukio-subjektu-prieziura/isvados-ataskaitos/vertinimo-isvados-4/2020-1; https://vpt.lrv.lt/lt/ukio-subjektu-prieziura/isvados-ataskaitos/vertinimo-isvados-4/2019; https://vpt.lrv.lt/lt/ukio-subjektu-prieziura/isvados-ataskaitos/archyvas-5/viesieji-pirkimai-atliekami-pagal-lr-viesuju-pirkimu-istatyma-1/tikrinimo-ataskaitos; https://vpt.lrv.lt/lt/ukio-subjektu-prieziura/isvados-ataskaitos/archyvas-5/viesieji-pirkimai-atliekami-pagal-lr-viesuju-pirkimu-istatyma-1/vertinimo-isvados/2019-m-3; https://vpt.lrv.lt/lt/ukio-subjektu-prieziura/isvados-ataskaitos/archyvas-5/viesieji-pirkimai-atliekami-pagal-lr-viesuju-pirkimu-istatyma-1/vertinimo-isvados/2018-m-6; https://vpt.lrv.lt/lt/ukio-subjektu-prieziura/isvados-ataskaitos/archyvas-5/viesieji-pirkimai-atliekami-pagal-lr-viesuju-pirkimu-istatyma-1/vertinimo-isvados/2017-m-1; https://vpt.lrv.lt/lt/ukio-subjektu-prieziura/isvados-ataskaitos/archyvas-5/viesieji-pirkimai-atliekami-pagal-lr-viesuju-pirkimu-istatyma-1/vertinimo-isvados/2016-m; https://sumin.lrv.lt/lt/naujienos/susisiekimo-ministerija-isisenejusios-lakd-problemos-tesiasi-metu-metus.

The audit has been performed in accordance with the Public Auditing Requirements and International Standards of Supreme Audit Institutions. The scope and methods of the audit are described in greater detail in Annex 2, Audit Scope and Methods (p. 63).

Key Results of the Audit:

Road infrastructure has to be managed in the way to reach the needed destination in an optimal way quickly and safely on high-quality roads. The results of the audit show that efficient use of investment in road infrastructure is not always ensured, as the shaping of road infrastructure policy is not always consistent with the changing situation, road planning is not always based on sufficient data, and the changes in the priority orders are not always justified. Moreover, the supervision of the quality control of works does not always ensure the conditions for the road works to be carried out in a high-quality manner.

1. Planning of works needs to be focussed more on upgrading the infrastructure in unsatisfactory condition

National road network development priorities and directions of road infrastructure development are provided for in various State planning documents. However, the direction of the planned development, such as asphalt works of gravel roads, construction of bicycle paths, is not entirely in line with the changing situation due to the decline in population. For example, in 2013–2019 the majority of roads of State significance were asphalted in those districts (except Vilnius), where the population decline was the highest, although, in 2019, 60 % of the State roads with asphalt surface were in bad or very bad condition. There is a risk that without taking into account changes in the country due to the decline in population, the investment may already be disproportionate to the benefits provided, as this road infrastructure will be used rarely in the long run (Sub-section 1.1, p. 16).

The Minister of Transport and Communications approves efficiency indicators of the management of roads owned by the State by the right of ownership. Based on these indicators, the mainstream roads are considered to be managed efficiently if they are in a satisfactory condition, whereas national and regional roads - in bad condition. Such indicators are unambitious and do not encourage the achievement of a better condition of roads of State significance (Sub-section 1.1, p. 16).

The Permanent Commission of the Road Maintenance and Development Programme, which is responsible for supervising the implementation of the Law on the Financing of the Road Maintenance and Development Programme, has not, in principle, fulfilled the tasks assigned to it from 2016 to 31 August 2020: has not submitted proposals to the Government concerning the development of the road network; has not prepared and submitted to the Government annual reports on its work; has attended the meetings three times less than it was required to attend. As the Commission was actually not working, it did not contribute to the implementation of the Law on the Financing of the Road Maintenance and Development Programme (Sub-section 1.2, p. 21).

In 2020, substantial progress was made in planning works on roads of State significance, as in 2019, the condition of 96 % of asphalt sections was assessed, i.e., almost all sections.

During the audited period, road traffic intensity of almost all roads of State significance was also assessed [11]. However, the planning of works in the Lithuanian Road Administration in 2016–2019 was not always based on sufficient data, as the condition of all roads has not been assessed. Not assessed: the condition of 21 % of roads in 2015, 62 % in 2016, 54 % in 2017, and 27 % in 2018. In planning the road works in this way, the LAKD could not rely on the relevant road condition data needed to establish priority orders of road works (Sub-section 1.3, p. 22).

During the audit, we could not objectively ascertain that the Lithuanian Road Administration included the most necessary and essential sites into 2016–2019 priority orders of works of State roads, as it: has not submitted documents confirming the selection of priority works for road sections, road constructions and one level intersections of State significance in 2016–2018; has not provided documentation and explanations concerning the inclusion of 104 km of 108 gravel sections in the Gravel Road Asphalt Paving Programme 2018–2022. In addition, priority orders of road works in 2019 were based on outdated data of 2–3 years, while 2 % of structures and 6 % of one level intersections were scored incorrectly. This affected the rank of the sites in the orders. In addition, we have found: 16 % of cases where works were carried out on road sections in good condition; 10 % of the cases where works were carried out on sections the condition of which had not been assessed. Also, in 2020, trends remained similar, with 13 % of cases where work was carried out or planned for sections of good condition. When the repair is carried out for roads in good condition, investment is not used in the most efficient way, as it may be targeted where it is most needed. The results of the audit showed that not all criteria for the selection of asphalt roads are appropriate as they also include sections with a low population of between 11 and 61 and between 31 and 69 vehicles per day. As the majority of roads of State significance were in bad or very bad condition during the period 2016–2019, the use of funds for the low-population roads should be considered insufficiently effective (Sub-section 1.5, p. 29).

The municipalities did not have sufficient data to plan their works effectively on roads of local significance in 2016–2019: the data of road (street) lengths are not always accurate and reliable, as cadastral measurements and legal registration have not been performed for 83% of roads in 52 municipalities[12]. In the absence of correct information about the length of local roads (streets), which is one of the criteria for allocating the funds of the Road Maintenance and Development Programme to municipalities, the Lithuanian Road Administration may allocate these funds to them inaccurately. Moreover, all 14 municipalities audited do not systematically record or collect data on the indexes of managed roads state and their traffic intensity; therefore, it is difficult to plan construction works of priority roads (streets) efficiently on the basis of non-objective data and to envisage the order of their performance. The results of the audit also showed that the allocation of half of the municipal[13] roads audited to the road network of local or State significance is not optimal as streets locating at municipal centres are used for

[11] With the exception of the years 2016–2017 No. A21 and 3401; in 2018 No. A21, 2252 and 2535; in 2019 No. A21 and 3401.

[12] Data of the Association of Lithuanian Municipalities of 01/10/2019 No data was provided by Švenčionys district, Šilalė district, Kaunas district, Kalvarija district, Joniškis district, Alytus district, Neringa city, Ignalina district municipalities.

[13] Šalčininkai district, Raseiniai district, Panevėžys district, Plungė district, Kretinga district, Marijampolė district, Kėdainiai district

urban purposes but owned by the LAKD. In the five audited municipalities,[14] some elements of the same road have different owners, which complicates the planning and organisation of works and the division of responsibilities in their maintenance (Sub-section 1.4, p. 26).

We could not objectively ascertain that the audited municipalities included the most necessary and essential sites into 2016–2019 priority orders of works on roads of local significance: Half of the municipalities[15] audited had not set criteria for priority work orders, five[16] of which had not approved the legal acts regulating the allocation of funds of the Road Maintenance and Development Programme. In addition, half of the municipalities[17] audited have set selection criteria, however, not all of them are suitable as the funding is earmarked for the asphalt works of streets of low-population. Therefore, investing funds in the construction of these streets is not optimal, as during that period in the mentioned municipalities there were ongoing other priority road construction works (Sub-section 1.6, p. 33).

2. Road works of established priority orders should be carried out in a more consistent manner and the changes should be justified

In 2016–2019, the Lithuanian Road Administration did not always carry out works of State significance as planned: 8 % of road works were delayed starting on time, asphalt works on 66 % of roads and 73 % of gravel roads were not started; EUR 272 million was used to perform the works that were not included in priority orders. Also, in 2020, trends remained similar, as a further EUR 5.7 million was used to asphalt such gravel roads, which were not included in priority orders. Where the established priority orders are not always followed, the investment may be targeted to sites of no urgent importance. Besides, the LAKD did not use part of the Road Maintenance and Development Programme funds for the entire period audited except for 2017. These funds could be used to carry out other priority construction works on roads of State significance (Sub-section 2.1, p. 39).

In 2016–2019, road works of local significance have not always been carried out as planned: all the audited municipalities observed the established priority orders only in part, not all road works were carried out within the set time limits. When all planned road (street) construction works are not carried out, obligations of the municipality to residents in the area of road infrastructure development remain not fulfilled, as the planned works are announced in the municipal strategic planning documents and publicly on the websites of the municipalities. In addition, in 2016–2019, nine (64 %) of the audited municipalities[18] did not use EUR 3.4 million allocated by the Road Maintenance and Development Programme, which could be used to carry out other priority road construction works (Sub-section 2.2, p. 41).

3. Supervision of quality control of works should be improved

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[14] Raseiniai district, Lazdijai district, Radviliškis district, Kėdainiai district, Šalčininkai district

[15] Klaipėda city, Marijampolė district, Panevėžys city, Raseiniai district, Radviliškis district, Šalčininkai district, Šiauliai city.

[16] Klaipėda city, Šiauliai city, Marijampolė district, Panevėžys city, Šalčininkai district.

[17] Kretinga district, Birštonas, Plungė district, Lazdijai district, Panevėžys district, Kėdainiai district, Vilnius district.

[18] Kretinga district, Klaipėda city, Lazdijai district, Plungė district, Panevėžys district, Kėdainiai district, Šiauliai city, Radviliškis district, Panevėžys city.

The LAKD does not always properly carry out the supervision of the quality of works in the sites of State roads, as when accepting the performed works, it does not objectively ascertain whether the performed works and their quality comply with the requirements of legal acts. If the works are not carried out not in a qualitative manner and the latter is not sufficiently convinced of its quality, the service life of a road might be shorter than it was prescribed. This may require additional investment in the future. In addition, the selection criteria for the sites to be inspected have not been established by the LAKD[19], therefore, the employees supervising the implementation of several projects determine the sites for inspection and the frequency of inspections themselves. This allows bias and not objective selection of the sites to be inspected (Sub-section 3.1, p. 43).

The Lithuanian Road Administration did not take mandatory action and did not apply to the contractor for the elimination of 5 % of the defects in the structures with the valid warranty period of 2016–2019, therefore additional funds from the State budget had to be allocated for their elimination. Also, no confirmatory information was received from the LAKD that all defects found in the structures had been eliminated at the contractor's expense (Sub-section 3.4, p. 51).

In road construction facilities of local significance financed by the Road Maintenance and Development Programme, the supervision of the quality control of road (street) construction, reconstruction, repair works is carried out not only by local authorities but also by remote employees of the Lithuanian Road administration since 2005. They perform maintenance of all sites, regardless of their size, road length or other parameters. Also, there are no established selection criteria for the prioritisation of sites to perform quality control tests. For these reasons, supervision of the quality control of works may be aimed at eliminating cases of not the highest risk (Sub-section 3.2, p. 48).

The annual participation of remote employees of the LAKD in inspecting the same local roads and their sites (funded by the Road Maintenance and Development Programme), which are subject to guarantee term and which are also inspected by municipal employees, is redundant, whereas costs in terms of time for maintenance of the simple sites should be considered as an administrative burden for the public sector.

In the audited municipalities, the quality control of roads of local significance with a guarantee term, in principle, is carried out properly (Sub-section 3.5, p. 55).

The study of the quality of road construction works carried out by the experts of Vilnius Gediminas Technical University during the audit confirmed that the supervision of the quality control of works needs to be improved: out of a total of 16 study sites of 8 roads, 14 (87 %) had inconsistencies. Incompliance of the road works with all the requirements set out in the technical documentation may lead to faster road deterioration, a shorter service life of these roads (Sub-section 3.3, p. 50).

[19] Description of the procedure for on-site inspections of ongoing construction maintenance contracts approved by 14/09/2020 Order No. V-130 of the LAKD Director. The description does not include scheduled maintenance services for the structure construction and scheduled / unscheduled inspections of the contract work performed at the construction site.

Changes during the audit

On 23/06/2020, the Seimas adopted a decision[20] to transform the Lithuanian Road Administration into a state enterprise. Following the adoption of the amendments:

- the LAKD will not be in charge of planning, organising, co-ordinating draft regulatory acts, adopting regulatory acts, normative technical documents, organising verification of compliance of legal persons with the requirements of regulatory acts related to the design, construction, reconstruction, repair and maintenance of roads of State significance;
- control of the use of funds of the Road Maintenance and Development Programme paid for supplies, services and works purchased under the Law on Public Procurement will be carried out by the Central Project Management Agency;
- since 01/09/2020, the supervision of the implementation of the Law on the Financing of the Road Maintenance and Development Programme has been entrusted not to the permanent commission of this programme but to the Ministry of Transport and Communications[21]. In the course of the audit, we examined the work of this commission in the period 2016–2019 and our assessments are presented in the audit report.

Recommendations

Ministry of Transport and Communications

1. In order to ensure targeted road infrastructure management policy, result-based performance assessment and improved quality of roads, to envisage directions and measures to improve the state of the existing infrastructure of roads of State significance (1st key audit result).

2. By creating preconditions to seek a better quality of roads of State significance, to establish motivating and ambitious efficiency indicators of the management of the roads owned by the State by the right of ownership (1st key audit result).

3. In order to ensure that construction and maintenance works of local roads (streets) financed with the funds of the Road Maintenance and Development Programme are more objectively selected, initiate amendments to legal acts establishing the obligation for municipalities to approve the legal acts regulating the allocation of funds of this programme and specify the selection criteria, procedures and their implementation (1st key audit result).

4. In order to ensure an optimal classification of the roads according to their significance and to carry out and manage efficient maintenance of the road network (1st key audit result):

    4.1. to assess whether it is rational to classify roads or sites thereof located in centres of municipalities to roads of State significance;

[20] Law amending Articles 4, 5, 7, 9, 10, 18, and 20 of the Law on Roads No I-891.

[21] Law Amending Article 9 of Law No. VIII-2032 on Financing of the Road Maintenance and Development Programme and supplementing the Law with Article 9-1, Article 1(6) .

4.2. by the completion of the assessment, to initiate the transfer of the relevant roads or their elements to the ownership of municipalities or the State;

4.3. when transferring roads or their elements into the ownership of the State or municipalities, account must be taken of the provision of legal acts that a road and its elements are a solid engineering structure.

To the Lithuanian Road Administration

5. With a view to more efficient use of funds of the Road Maintenance and Development Programme and data-based planning of construction or repair works of roads of State significance, to provide for measures to ensure that (1st and 2nd key audit results):

   5.1. the state of all asphalted roads of State significance is assessed annually, covering the same site and length;

   5.2. the selection of sites is limited to specified requirements;

   5.3. the changes in priority orders should be justified;

   5.4. the selected sections to be asphalted would be socially and economically profitable.

6. In order to carry out more effective supervision of the quality control of works on roads of State significance and to ensure that these roads are constructed and repaired in a qualitative manner, the process of project monitoring should be improved in such a way that (3rd key audit result):

   6.1. it is carried out on the basis of a risk assessment;

   6.2. the quality of the constructed roads is assessed impartially.

7. In order to use resources more efficiently, to avoid duplication of works carried out by the LAKD and municipalities, carry out quality control supervision of local roads on the basis of risk assessment (3rd key audit result).

8. In order to make more efficient use of resources for maintenance of structures covered by the guarantee period and to reduce the administrative burden on the public sector, provide for measures to ensure that checks on local roads and their facilities are based on risk assessment and are carried out at the end of the warranty period (3rd key audit result).

Measures and deadlines for the implementation of recommendations are provided in the Section Plan for the Implementation of Recommendations of the report (p. 57).