



# Municipal forests: an uneconomically used public resource

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## Audit report

“Municipal forests: an uneconomically used public resource”

Performance audit “Action of local and regional governments with forest resources”.

The audit was performed based on audit schedule No 2.4.1-7/2023 of the Fifth Audit Department of the State Audit Office of Latvia of 5 January 2023.

Technical clarifications were made in the audit report under decision No LEMGROZ-43/2024 of 27 May 2024.

The cover design uses photos from the personal archive of auditors.



Dear Reader,

The story of this audit is about a current and important value for the public, that is, forests.

There is a well-known and widely used saying “Forest is Latvia’s green gold”. Forestry is one of the most economically significant sectors in Latvia and makes a significant contribution to the sustainable development of the national economy. Unlike various fossil resources, the forest is a renewable natural resource, moreover, its skilful management can provide stable and significant income in the budgets of local and regional governments. However, the forest becomes “green gold” only if proper forest management is ensured.

Forests play an existentially crucial role in nature protection and conservation of biodiversity. By planting trees and managing forests, one can provide significant savings in the costs associated with meeting climate goals. In local and regional governments, issues of sustainable development and climate goals will become more and more relevant.

In this audit, we focused the view of local and regional governments on the necessity of identifying forest resources (forest inventory), the importance of planning and activities in the cycle of forest management, and the impact on the possible return of this valuable public asset.

The amount of forests in the ownership and legal possession of local and regional governments (4% of Latvia’s total forest area) might mistakenly seem small, but the total area of municipal forests of 132,200 ha is a valuable public asset that can be used for the common good of the population and could provide the income between 26 million and 52 million euros in municipal budgets annually.

Currently, in municipal forests, felling area and forest properties are being sold, with the obtained financial resources being used to ensure various needs important to local and regional governments, but without primarily investing these financial resources in the full identification of forest resources, restoration and other activities necessary in the cycle of forest management, although it is crucial for the forest to continue provide benefits in the future as well.

Today, local and regional governments benefit materially from the forests cultivated by previous generations. Our responsibility towards future generations is to safeguard the restoration of forest stands of at least equivalent quality, despite the current priorities and daily needs of local and regional governments. The financial situation of local and regional governments nowadays is not an excuse to leave less valuable forest stands to future generations because they cannot be responsible for the decisions made at this moment of time and their consequences.

We are aware that local and regional governments have different wishes and opportunities to manage forests efficiently, so we invite each local and regional government to evaluate and find those solutions and ways of managing forest resources that ensure the greatest return and benefit from the management of this valuable public asset aka “green gold”.

We express our gratitude to Dr.silv. Dagnis Dubrovskis for professional consultations in the field of forestry, experts of Balttaks Ltd, specialists of Alūksne, Jelgava, Krāslava, Saldus and Sigulda Regional Governments for efficient cooperation during the audit.

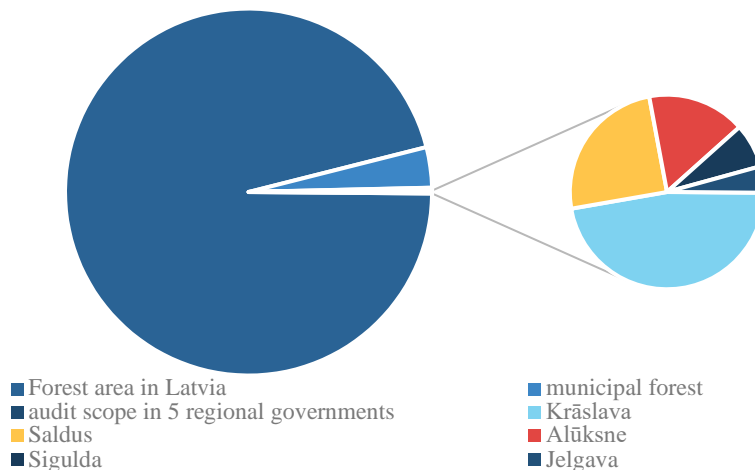
Respectfully  
Mr Oskars Erdmanis  
Department Director

## Basic information

**3,305,000 ha** of forests in Latvia  
including municipal forests of almost **4%**  
**132,200 ha**

or

Forests of audited **5** regional governments  
cover **8,596 ha** or **14%** out of  
municipal forests (except Riga).



In the audited 5 regional government, there is no information about **63%** or **5,451 ha** forest resources.

Only **2** out of **5** regional governments have a forest management plan.

When managing non-inventoried forest property and potential forest resources, the audited regional governments might earn revenue of at least **2 379,000 euros** in a short period of time.

When all economic forest areas are managed efficiently, that is, by reforestation, maintenance of young forest stands and growing stock, prevention of swamping, etc., audited 5 regional governments might benefit net income between **200** and **400 euros per ha** or between **1,719,200** and **3,438,400 euros annually**.














































In real estate and felling area deals, regional governments have received an average of approximately **19%** less revenues than other equal forest owners in the market in general.

In transactions included in the audit sample, a price difference between an evaluation and an auction result was detected up to **268%**.

In transactions included in the audit sample, the increase in a resale price of real estate, which consists of a forest, has been detected up to **400%**.

## Assessment by the State Audit Office of Latvia

**Key audit matter** – Do municipalities deal with the forest resources in their ownership and legal possession economically (effectively and efficiently)?

| Audit question   | Criterion is reached / not reached / reached partially                              |   |  |   |   |
|--|---|---|--|---|---|
|  | Defined criterion   | Alūksne Region  | Jelgava Region   | Krāslava Region   | Saldus Region   |
| <b>1. Do the statements in development planning documents of a municipality regarding forest management (goals, deadlines, performance indicators) promote effective and efficient forest management?</b>  |   |   |  |   |   |
| The long-term and medium-term development planning documents of a municipality include measurable goals, tasks, deadlines and the results to be achieved through forest management, as well as the actions of the municipality comply with the statements in the planning documents. |    |    |    |    |    |
| <b>2. Does a municipality act to obtain complete and accurate information about the forest resources at its disposal?</b>  |   |   |  |   |   |
| A municipality has carried out the initial and repeated (if applicable) forest inventory.  |   |   |   |   |   |
| A municipality has developed an action plan for the initial and repeated inventory of the non-inventoried forests.   |  |  |  |  |  |
| <b>3. Do municipalities plan forest management?</b>  |   |   |  |   |   |
| A municipality has developed and approved a long-term forest management plan.  |  |  |  |  |  |
| <b>4. Does a municipality act to increase the value of “commercial forests”?</b>   |   |   |  |   |   |
| In forests where artificial regeneration is allowed, a municipality carries out regeneration by planting or seeding and using selected seeds or seedlings.   |  |  |  |  |  |
| A municipality maintains young forest stands and growing stock following best practice.  |  |  |  |  |  |
| Municipalities maintain the established land amelioration systems.   |  |  |  |  |  |
| A municipality does not have overgrown, abandoned or excessively humid forest stands.  |  |  |  |  |  |
| <b>5. Does a municipality act economically in transactions with forest lands and timber?</b>   |   |   |  |   |   |
| Timber tenures and timber resources are sold at the highest potential price.   |  |  |  |  |  |

**Green** – criterion met, **yellow** – criterion was met partially, **red** – criterion is not met or significant deficiencies detected.

## Summary

Although the forest resource makes a significant contribution to ensuring environmental, social and economic dimensions, we assessed the forest management processes in the commercial forests of regional governments in this audit, which have been recognised as such by the regional governments themselves or have been carried out felling operations in them, which later determines the need to restore the forest stand and ensure other forest resources activities planned in a management cycle.

The audit did not assess how the audited regional governments dealt with the forests in their ownership and legal possession, the purpose of use of which was recreation, nature parks and reserves, specially protected natural areas, as well as with those forest areas that the regional governments had determined themselves to be important for the preservation of biological diversity.

### Main conclusions and expected results after implementation of the recommendations

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The five regional governments included in the audit scope, that is, Alūksne, Jelgava, Krāslava, Saldus and Sigulda Regional Governments (hereinafter referred to as the audited regional governments), have not handled the forest resources in their possession economically, and they do not derive the greatest potential benefit from the management of these valuable public assets.

First of all, when selling municipal real estate and felling areas, the audited regional governments receive an average of 19%<sup>1</sup> less revenue than other forest owners on the same market. Secondly, in the area of at least 5182.65 ha, the regional governments do not carry out all complete, sequential and timely activities foreseen in the cycle of forest management, for instance, forest restoration after felling, care of young forest stands and growing stock, protection against damage by pests and animals, drainage and maintenance of forest infrastructure. Thus, the formation of unkept, unproductive and overgrown forest stands is encouraged. By not carrying out the necessary felling, the regional governments reduce a future value of the forest and do not earn revenues of at least 3,347,800 euros<sup>2</sup>. Thirdly, due to wrongly made decisions or incomplete actions in forest governance and management, the regional governments lose an opportunity to generate revenues in a significantly larger amount in the future than if they took care of the forest regularly as a good and careful owner with a long-term vision.

By implementing the recommendations provided by the State Audit Office of Latvia, the audited regional governments will carry out actions to eliminate the inconsistencies found during the audit and positive changes/improvements will be achieved, which are characterized by the following results and indicators to be achieved within five years:

1. The managed forest areas (ha) will be increased<sup>3</sup>, in which the activities required in a forest management cycle are carried out according to the indicators characterizing a forest stand by at least 25 %;

2. Revenues from the management and sale of municipal forest resources will be increased:
- Revenues from the management of municipal forest resources will be increased<sup>4</sup> (the income level of forestry in Latvia is between 200 and 400 euros/ha per annum<sup>5</sup>);
  - Revenues from the sale of municipal forest properties and felling areas will be increased by receiving the same amount of income as other forest owners on the market.

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*Local and regional governments do not have up-to-date forest inventory data, and they do not plan the management of all forests*

The audited regional governments do not have complete information about the actual volume and condition of the forests in their ownership and legal possession because the regional governments have not carried out an initial forest inventory on 3,523.64 ha or an average of 41% of the area, although they are obliged to carry out an initial forest inventory and submit its data to the State Forest Service at least once every 20 years and in other specified cases, to conduct a repeated forest inventory<sup>6</sup>. Forest inventory is a prerequisite for the implementation of internal control in order for local and regional governments to plan and ensure legal and efficient management of the forest as a public asset.

When analysing the data of the State Forest Register for all Latvian local and regional governments, one concluded that at least 27% of municipal forests had not been inventoried<sup>7</sup> and even more than half of the forest areas have not been inventoried in some local and regional governments. In Alūksne, Jelgava and Saldus Regional Governments, an average of 33% of the forests have not been inventoried, while the volume of non-inventorized forests in Krāslava Regional Government reaches up to 70%. Only in Sigulda Regional Government, this indicator is relatively small, that is, 6.5%.

Having analysed the data of the Cadastre Information System on all land properties, their purposes of use, cartographic materials, publicly available digital maps, satellite and aerial images and information obtained during a survey, the audit estimated that the actual volume of non-inventorized audited municipal forests was at least 1,191 ha larger and constituted approximately 4,715 ha (See examples in Figures 1 and 2). Thus, the regional governments have no data on such forest areas at all, and it limits the ability to plan and carry out forest management activities significantly.

70-80% of non-inventorized municipal forest properties were surveyed by remote methods and 20-30% were surveyed in person by applying drones and tree measuring tools; data was obtained for measurements and calculations. One estimated that obtaining at least 2,495 m<sup>3</sup> of wood worth 119,850 euros<sup>8</sup> in the surveyed non-inventorized properties was possible if required felling had been done. The value of the growing stock in all the audited non-inventorized municipal forest areas was estimated to be at least 2,379,000 euros, assuming that the dominant tree species were soft deciduous trees in the majority of the areas.



Figure 1. The property with an area of 16 ha, the purpose of land use is agriculture.



Figure 2. Property with an area of 67.9 ha, purpose of land use is agriculture.

#### Figure 1 and 2. Unmaintained non-inventorized areas

736.36 ha of the forests of audited regional governments have not been re-inventoried, even though the condition of the forest might change significantly in 20 years and even longer due to various factors, such as windthrow, human-caused effects, damage caused by pests and animals, changes in the prevailing tree species and the size of the growing stock. In several cases<sup>9</sup>, the audit detected irregularities in forest inventory data, as both the dominant tree species and their age did not match the composition of the forest stand found during a survey, which limited the ability to make reasonable decisions for forest management activities, as well as posed a risk of fraud in forest property and felling area expropriation transactions.

The absence of a forest inventory prevents strategic planning of actions with forest resources. In their development planning documents, the audited regional governments have not defined the goals they want to achieve with this valuable public asset, nor have performance indicators been determined, such as a level of forestry income in euros/ha per annum or equivalent indicators that would allow for the assessment of what has been achieved. Only Alūksne and Saldus Regional Governments have drafted a separate document for the management of the inventoried forest resources.

Absent strategic planning for managing forest resources and the absence of forest management plans do not contribute to the effective and efficient management of municipal forests, which result in non-performed forest management activities and the formation of low-value forest stands even in higher quality forests, thus not obtaining the greatest potential benefit from forest resource management.

Taking into account the existing municipal practice, capacity and results in municipal forest management, one can predict difficulties in coping with future challenges in the existing management framework in the regional governments such as requirements and obligations regarding the European Green Deal, climate neutrality and sustainability in general. The State Audit Office of Latvia expects that local and regional governments by involving local and regional government uniting organizations, other organizations and institutions related to the forest sector, will evaluate their opportunities, benefits and costs to make a decision on the most correct model of municipal forest governance and management henceforth.



*Regional governments set up and maintain the boundaries of forest properties improperly*

The forest properties of the audited regional governments are not provided and maintained with clearly visible boundaries and landmarks, although the establishment and maintenance of boundaries is the responsibility of a landowner. Moreover, a forest inventory is possible only if the delimiting boundaries and landmarks of a land plot are identifiable in terrain<sup>10</sup>. In the surveyed municipal forest properties, the situation with the boundaries of forest properties is unsatisfactory because there are no visible delimiting boundaries, boundaries, as well as property boundary corners (landmarks). The current situation indicates that the regional governments do not act to safeguard an appropriate state of borders, and the State Forest Service has also indicated<sup>11</sup> that the most common reason for refusals to register forest inventories is the finding of inappropriate borders.

Improperly established boundaries have been detected even in cases where a forest inventory was carried out shortly before the auditors surveyed a property, although they should have been identifiable clearly at that time. Such a situation increases the risk of violating the boundaries of municipal properties intentionally or carelessly, for example, when working in feeling areas in neighbouring properties. For instance, in one case<sup>12</sup>, white alders and birches growing in the municipal forest of Krāslava Region in an area of approximately 120 m<sup>2</sup> have been cut down, probably due to inappropriate and disorderly boundaries.

*Restoration of municipal forest properties after felling is not carried out effectively, efficiently and as quickly as possible*

Reforestation must start from the moment when a main forest harvest, timber, has been collected by beginning reforestation activities as soon as possible, which begins with the selection of the type of reforestation and the tree species to be grown according to a type of soil, and the preparation of the soil. Forest seeding and planting are the best way to restore new forest stands, as it gives an opportunity to create more productive forest stands in places where natural regeneration does not occur intensively enough or where a forest regenerates with trees of unwanted and low-value species. The use of selected planting material ensures that a forest stand can grow up to 15 years faster and at least 80 m<sup>3</sup>/ha more wood will be obtained in the main felling.

The information and data gathered by the auditors about the forests of the audited regional governments indicate that in places where valuable tree species such as pine, spruce, and birch have been cut down before, reforestation is not carried out with appropriate or equivalent tree species. In other words, 57% of the entire restored forest area is left to regenerate naturally with low-value tree species such as aspen and white alder without choosing a more efficient method of regeneration.

In the surveyed forest properties of the audited regional governments<sup>13</sup>, forest regeneration has not been carried out as effectively as possible on an area of at least 33.66 ha because the regional governments have left the forest areas to regenerate naturally where it is more efficient to perform artificial forest regeneration. As a result, these forest stands will not be efficient in the future and they will not generate the highest potential income, which could reach at least 426,300 euros<sup>14</sup> in these properties. The mistakes made in the regeneration of forest stands can have a significant impact on their future value, for example, in the regeneration of one 20.6 ha large forest stand, sequential planning and monitoring of

regeneration work was not ensured, as a result a part of the planted trees have died, but the surviving seedlings lag behind in growth and the future lost value in this property can reach up to 247,200 euros<sup>15</sup>.

After the logging, the audited regional governments do not ensure the reforestation in the shortest possible time, and in some cases<sup>16</sup>, it even exceeds the longest allowable regeneration period, thus not ensuring the fastest possible reforestation of the cut area and the development of growing stock.

By leaving the forest to regenerate naturally and not choosing regeneration by planting or sowing, the regional governments do not contribute to the preservation or even increase of forest efficiency, which results in less valuable forests left for future generations, contrary to the fact that regional governments have had the opportunity to log efficient forest stands and obtain valuable timber.

*Local and regional governments do not provide maintenance of young forest stands to the necessary extent and quality*

The actions of the audited regional governments in the maintenance of young forest stands do not contribute to the efficient growth of forest stands because at least 121.34 ha of young forest stands have not been maintained in time. Between 2016 and 2022, the regional governments have regenerated 391.17 ha of forest, but only 194.09 ha of young forest stands have been maintained, which is at least two times less than what should be needed. The maintenance of young forest stands must be carried out in such an amount and at a time that ensures the best potential regeneration of the forest according to the type of forest and the quality of soil. The maintenance of young forest stands must be carried out both in artificially regenerated and naturally grown areas to ensure the growth of tree seedlings and the cultivation of the target tree species.

In the surveyed young forest stands, which regenerated naturally, the prevailing target tree species is not identifiable (for an example, see Figure 3). It shows that the audited regional governments do not have a result-oriented approach to the maintenance of young forest stands. The auditors found that valuable native spruce and pine saplings had not been cultivated in several clearings, which were left to regenerate naturally, and had been overgrown by grasses and fast-growing deciduous trees at the time of the survey. In its turn, it indicates that insufficient agrotechnical maintenance has been carried out. As a result, overgrown and low value stands of white alder and aspen dominate in many young forest stands. In addition, non-performed or poorly performed maintenance of young forest stands reduces the chances of improving the quality of the forest stand later significantly by maintaining the growing stock, as majority of trees are of poor quality.

The maintenance of young forest stands is done to an insufficient extent even in young forest stands regenerated with high-quality conifers<sup>17</sup>, and the plantations have partially or completely died there because the planted areas have been taken over by faster-growing naturally grown deciduous trees and grasses (See example in Figure 4).



Figure 3. Unmaintained natural young forest stand. Figure 4. Fast-growing plants have taken over the planted spruce trees.

#### Figure 3 and 4. Ungroomed young forest stands.

The audited regional governments maintain young forest stands within the longest possible<sup>18</sup> period mainly, and in some cases<sup>19</sup>, compliance with the maintenance deadlines<sup>20</sup>, is not even ensured, although it is very important not to delay the start of maintenance work so that the fastest-growing plants do not compete and shade the tree seedlings. This condition shows that young forest stands are not maintained according to the actual situation and need, but only to fulfill the statutory requirements.

#### *No drainage systems are maintained in municipal forests*

Due to the effect of increased humidity, forest stands have been damaged in an area of 199.95 ha alone in the surveyed sample properties, and in several places<sup>21</sup>, swamping and destruction of the forest due to a non-functioning drainage system has been detected although local and regional governments are obliged to survey these objects twice a year (after the end of the peak in case of spring floods and summer floods), assess their condition and ensure the functionality of the systems<sup>22</sup>.

Forest melioration and ensuring the functionality of these systems play a vital role in forest management and protection, as it reduces the adverse effects of climatic conditions and changes the hydrological conditions of the soil in a specific area, as well as ensures the protection of infrastructure and territories against flooding. However, the audited regional governments have not identified and listed the drainage systems belonging to them in the area of at least 3.26 ha<sup>23</sup> in the drained forest areas; they have not been surveyed and no investments have been made in ensuring the functionality of the existing drainage systems.

The functionality of drainage systems can increase the commercial value of forest significantly by increasing the yield of wood by approximately 2-3 m<sup>3</sup> per hectare per year, for instance, the yield of a spruce forest increases four times on average, of pine forest increases three times, of birch forest increases two times, and of black alder forest increases one and a half times<sup>24</sup>.

*Local and regional governments allow the value of forest stands to decrease unjustifiably*

The audit identified that the property of the audited regional governments included both unmaintained forests, including pest-damaged and overgrown forest stands, where thinning must be carried out immediately, as well as overgrown forest stands, that is, those that have exceeded the age of a mature forest stand, including trees that are not strong and cannot be considered a viable forest ingredient. Overgrown and unmaintained forest stands lose their value because maintenance works have been delayed or performed in insufficient volume and quality, including the removal of damaged trees resulting in partial or complete loss of forest stands.

Overgrown forests can be improved through selective logging, thereby encouraging the growth of new wood-producing trees and increasing forest growth and productivity accordingly.

Alūksne, Saldus and Sigulda Regional Governments have recognized forest stands in the area of 310.21 ha<sup>25</sup> as overgrown in the inventoried forests. In their turn, Jelgava and Krāslava Regional Governments have not carried out such an assessment, therefore they cannot make economically justified decisions on the necessary forest management activities in a timely manner.

In the forests of audited regional governments<sup>26</sup> where dense forest stands have been detected, one requires thinning immediately to promote growth of efficient and high-quality dominant tree species and to reduce the time of increment.

Although the audited regional governments indicate a lack of funding as one of the reasons for not carrying out forest management activities, according to the estimate made by the State Audit Office of Latvia, the regional governments would receive at least 968,800 euros in revenue<sup>27</sup> from the logging of overgrown and felling-aged fellings. With these funds, the regional governments would have an opportunity to perform the necessary forest management activities, including the arrangement of borders, conducting inventories and arranging forest infrastructure.

For several years, large challenges and losses in forestry have been caused by eight-toothed spruce bark beetles (*Ips typographus*) and the damage they cause. This situation affected territories of 32 local and regional governments, including all audited regional governments.

Although a state of emergency was declared in 2023 and it was possible to receive a certificate issued by the State Forest Service for felling trees<sup>28</sup> in an expedited manner for the implementation of measures to limit eight-toothed spruce bark beetles, Sigulda, Krāslava and Jelgava Regional Governments did not use this opportunity. When surveying the forests<sup>29</sup>, one found that sanitary damages, including those caused by eight-toothed spruce bark beetles, had not been prevented in several cases posing a threat to the other spruce stands. For instance, approximately 15% of the average stock of a mature forest, or approximately 45 m<sup>3</sup> of wood worth 2,200 euros per hectare of forest<sup>30</sup>, were destructed in one property.

*Regional governments do not get the highest potential price when selling felling areas and timber tenure*

When selling timber tenures and felling areas, the audited regional governments did not act as a proper and careful owner of this public asset, although local and regional governments should handle the property effectively by expropriating it and selling it over to another person for the highest potential price<sup>31</sup>. Without carrying out control procedures over determining a true value of the property to be sold and a follow-up inspection after the development of the sold felling areas, the regional governments receive 19%<sup>32</sup> less revenue on average than other forest owners.

In 2022 and 2023, the audited regional governments received at least 5,109,193 euros in revenue from the expropriation of forest resources, including 1,655,784 euros from the expropriation of 41 felling areas and 3,453,408 euros from the expropriation of 87 real estates, which consist of forest stands. However, municipal timber tenures and felling areas have not been assessed properly and sold at the highest potential price. Only in the transactions examined in the audit sample (in 17 real estate and 13 felling area expropriation transactions, the revenues of the regional governments were 2,107,921 euros), it was possible for the regional governments to earn at least 398,000 euros more revenue.

The auditors consider that one of the reasons why the audited regional governments did not receive more revenue from the sale of forest resources is that the regional governments had not reserved the right to carry out and had never carried out a survey of the amount of wood actually cut down to be sure of the quality of an initial evaluation in any of the felling area sales transactions. For example, in one transaction in Saldus Regional Government, wood in the amount of 4,159 m<sup>3</sup> worth 163,477 euros<sup>33</sup> was actually transferred to an economic operator free of charge without making sure of the quality of the felling area evaluation and without comparing it with the forest inventory data.

In no case, the audited regional governments carried out control procedures to compare an initial valuation of the sold felling areas and timber tenures, the highest bid price and a resale price of timber tenures, thereby obtaining information and data about the true market value of the properties and trends to take into account in the sale of other properties. The audit found that bid prices at auctions were as much as 268% higher than an initial assessment, but real estate properties sold were resold within a short time (from less than a month to eight months) after a transaction for a price as much as 400% higher by reaching as much as 172,000 euros higher price in one case.

In addition, the audited regional governments have allowed cases when an appropriately certified appraiser did not participate in the preparation of property valuations, while in the case of the sale of real estate that included a forest, no survey of growing trees was carried out, which made it possible to most ascertain the true value of the forest in the real estate being sold accurately.

The audited regional governments do not use all the methods specified for publishing auction information<sup>34</sup> nor do they use additional communication channels in all cases, thus failing to ensure the availability of information to the broadest potential range of interested parties. This circumstance is also considered as one of the reasons why the highest potential sale price, which would correspond to the true market value of the property, is not reached.

In one case, it was established that Krāslava Regional Government did not fulfill the statutory requirement on holding an auction, thus not ensuring the right of all applicants to participate in the relevant auction and not receiving the highest price for the sold property.

When checking the information about the actual amount of timber obtained in felling areas, the auditors concluded that only to the developer of the relevant felling area knew that. The audited regional governments do not survey the amount of cut timber after felling, therefore they submit inaccurate information to the State Forest Service. In its turn, the State Forest Service does not check it and does not use it in any way in the future<sup>35</sup> despite the fact that it requests the submission of this data.

Therefore, the state institution that is responsible for controlling the record of trees and round timber<sup>36</sup>, does not have the real data on the actual composition and volume of the growing stock obtained in felling areas. As a result, there are long-term high risks in this area for felling developers to present a smaller volume of growing stock obtained in felling than it was found in the audit in several cases.

The State Audit Office of Latvia will inform the State Forest Service, the State Revenue Service, the Ministry of Finance, and the Ministry of Agriculture about the need for an urgent solution to this situation.



Control over the amount of growing stock actually cut is not provided in the country.

### Key recommendations

Based on the findings and conclusions of the audit, the State Audit Office of Latvia has made 60 recommendations. When implementing them, the regional governments shall:

- Obtain complete and reliable information about all owned and possessed forest resources;
- Plan the management of forest resources and a necessary financial flow strategically, as well as draft a forest management plan;
- Carry out the necessary actions in the forest management cycle according to the indicators characterizing a forest stand, increasing the efficiency of the managed forest stands, thus striving for the greatest potential future value;
- Receive revenue corresponding to the market situation in sales transactions of timber tenures and felling areas.

## References

- <sup>1</sup> The estimate of the State Audit Office of Latvia made at the end of 2023 by analysing the assessment of sales transactions included in the audit sample, the results of auctions and resale prices.
- <sup>2</sup> The estimate of the State Audit Office made at the end of 2023.
- <sup>3</sup> The base values of the area of the managed forest are determined by carrying out the activities specified for the implementation of the recommendation, that is, forest inventory and elaboration of a management plan.
- <sup>4</sup> The base value of revenues from the management of municipal forest resources will be defined when implementing a recommendation.
- <sup>5</sup> The calculations for 2023 provided by Leading Researcher of the Latvian University of Biosciences and Technologies, *Dr.silv.* Dagnis Dubrovskis, to the State Audit Office of Latvia by using the data of the Central Statistical Bureau of the Republic of Latvia, and the growth course modelled by means of forest management decision-making support system “*Meža eksperts*” (Forest Expert).
- <sup>6</sup> Section 29 of the Forest Law.
- <sup>7</sup> Here and hereafter, non-inventorized forest areas include all non-inventorized forests in the ownership and legal possession of local and regional governments, including leased ones.
- <sup>8</sup> Here and hereafter, revenue estimates are presented net of logging costs.
- <sup>9</sup> In the properties of Krāslava Regional Government “*Rubeņi*” and “*Alksnīši*” and in the property of Sigulda Regional Government “*Lauges*”.
- <sup>10</sup> Article 3 of Cabinet Regulation No 384 “Rules of Information Circulation of Forest Inventory and Forest State Register” of 21 June 2016.
- <sup>11</sup> Electronic mail of the State Forest Service dated 19 February 2024.
- <sup>12</sup> Land survey designation 60460010141.
- <sup>13</sup> Properties of Alūksne Regional Government “*Eglaine 1*” (land survey designation 36800040187) of 1.02 ha worth 12,200 euros and “*Ignāšas-4*” (land survey designation 36420020209) of 1.16 ha worth 13,900 euros; property of Jelgava Regional Government “*Ceplu mežs*” (land survey designation 54560100199) of 20.6 ha worth 247,200 euros; property of Krāslava Regional Government “*Rubeņi*” (land survey designation 60460010141) of 7.38 ha worth 103,000 euros; property of Saldus Regional Government “*Apšenieki*” (land survey designation 84800030180) of 3.5 ha worth 50,000 euros.
- <sup>14</sup> The estimate of the State Audit Office of Latvia made at the end of 2023.
- <sup>15</sup> The estimate of the State Audit Office of Latvia made at the end of 2023.
- <sup>16</sup> District 17, block 2; District 14, block 1; District 13.1, block 3 of the 1.61 ha property of Saldus Regional Government “*Ogas*” (land survey designation 84700020063); District 1, block 3 of the 0.44 ha property of Sigulda Regional Government “*Dreimaņi*” (land survey designation 66560040037).
- <sup>17</sup> District 4 of the 2.47 ha property of Alūksne Regional Government “*Pabērzi*” (land survey designation 36420010009); the 20.6 ha property of Jelgava Regional Government “*Ceplu mežs*” (land survey designation 54560100435).
- <sup>18</sup> Cabinet Regulation No 308 “Rules of reforestation, afforestation and plantation forest” of 2 May 2012.
- <sup>19</sup> 2.18 ha in District 22 of property of Sigulda Regional Government “*Saulieši*” (land survey designation 80740040041); 1.56 ha in District 7 and 0.74 ha in District 16 of property “*Lūši*” (land survey designation 80740010081).
- <sup>20</sup> Article 9 Cabinet Regulation No 308 “Rules of reforestation, afforestation and plantation forest” of 2 May 2012.
- <sup>21</sup> For example, properties of Krāslava Regional Government “*Birži*” (land survey designation 60420110150) and “*Vijolītes*” (land survey designations 60920020069, 60920063305), and properties of Sigulda Regional Government “*Dreimaņi*” (land survey designation 66560040037) and “*Lūši*” (land survey designation 80740010081).
- <sup>22</sup> Article 2 and 4 of Cabinet Regulation No 714 “Rules for operation and maintenance of drainage system” of 3 August 2010.
- <sup>23</sup> 0.01 ha in the property of Alūksne Regional Government “*Eglaine 1*” (land survey designation 36800040187); 0.09 ha in property “*Pabērzi*” (land survey designation 36420010009); 0.12 ha in the property of Saldus Regional Government “*Apšenieki*” (land survey designation 84800030180); 0.77 ha in the property of Sigulda Regional Government “*Dreimaņi*” (land survey designation 66560040037), 0.9 ha in property “*Lūši*” (land survey designation 80740010081), and 0.44 ha in property “*Lūši*” (land survey designation 80740010080); 0.63 ha in property “*Lauges*” (land survey designation 66560020490); 0.12 ha in the property of Krāslava Regional Government “*Vijolītes*” (land survey designation 60920063305) and 0.09 ha in property “*Vijolītes*” (land survey designation 60920020069) and 0.03 ha in property “*Birži*” (land survey designation 60420110150).
- <sup>24</sup> Cabinet Order No 238 on Plan “Priority lines of action in land reclamation policy 2021-2027” of 12 April 2021.
- <sup>25</sup> Property of Alūksne Regional Government of 186.17 ha (aspen 11.61 ha, birch 31.71 ha, white alder 25.14 ha, spruce 61.67 ha, black alder 11.58 ha, and pine 34.46 ha); property of Saldus Regional Government of 106.16 ha (aspen 44.33 ha, white alder 40.03 ha, birch 20 ha, and pine 1.8 ha); property of Sigulda Regional Government of 17.88 ha (birch 8.57 ha, spruce 1.64 ha, and pine 7.67 ha).
- <sup>26</sup> In various forest districts of the properties included in the audit sample.
- <sup>27</sup> The estimate of the State Audit Office of Latvia made at the end of 2023.
- <sup>28</sup> Order No 149 of the State Forest Service on the continuation of measures to limit the mass reproduction of the eight-

toothed spruce bark beetle of 24 August 2023.

- <sup>29</sup> Property of Alūksne Regional Government “*Ignašas-4*” (land survey designation 36420020209); property of Jelgava Regional Government “*Vilkudārzs*” (land survey designation 54480060581); property of Sigulda Regional Government “*Dreimaņi*” (land survey designation 66560040037).
- <sup>30</sup> Property of Alūksne Regional Government “*Ignašas-4*” (land survey designation 36420020209).
- <sup>31</sup> Paragraph 2, Section 3 of the Law on the Prevention of Squandering of Financial Resources and Property of a Public Entity.
- <sup>32</sup> The estimate of the State Audit Office of Latvia made by analysing the evaluation of sales transactions included in the audit sample, auction results and resale prices.
- <sup>33</sup> The calculation was made taking into account that the amount of growing stock according to the data of forest inventory on property “*Ogas*” of 16 April 2020 for the period from 2020 to 2039 in the indicated felling areas was 9,993.40 m<sup>3</sup>. The calculation including the permissible error of 10% amounted to 8,994.06 m<sup>3</sup>. Assuming that the initial volume of wood was 8,994.06 m<sup>3</sup>, and the sold volume was 4,834.32 m<sup>3</sup>, the difference was 4,159.74 m<sup>3</sup>, which was multiplied by the highest price bid at the auction of 39.30 euros/m<sup>3</sup>. As a result, the potential revenue not obtained by the regional government was at least 163,477.78 euros. At the same time, one should note that the permissible calculation error of 10% based on inventory data may also have an upward trend (10,992.74 m<sup>3</sup>) and that a larger volume (9,641 m<sup>3</sup>) after felling was indicated in the regional government’s report dated 27 January 2021 than it was used in the calculation.
- <sup>34</sup> Part 2, Section 11 of the Law on Expropriation of Property of a Public Entity.
- <sup>35</sup> Article 10, letter No VMD1-10/211 of the State Forest Service of 19 February 2024.
- <sup>36</sup> The procedure for accounting for trees and round timber, documents certifying accounting and transactions, as well as documents certifying personal consumption, their registration procedures and storage regulations are regulated by Cabinet Regulation 744 “Rules on accounting for trees and round timber” of 6 November 2007, whose execution control is carried out by the State Revenue Service in cooperation with the State Forest Service following its mandate.
- <sup>37</sup> Eurostat. *Statistical books. “Agriculture, Forestry and Forestry Statistics” 2020 Edition.*