

# National arrangement of mining mineral resources used in construction

*Has extraction of mineral resources used as construction materials been arranged sustainably and considering the people and nature of Estonia?*

Report of the National Audit Office to the Riigikogu, Tallinn, 14 May 2009

## Summary of audit results

The National Audit Office audited the activities of state authorities in arranging the extraction of mineral resources used in construction (sand, gravel, limestone and dolomite).

The data of the Statistics Estonia show that the quarried amounts of minerals used in construction have increased continuously since 2001. For example, the volumes of extracted gravel and sand increased by approximately 4 times, the quantities of limestone by more than 3 times and the volume of dolomite by approximately 2.5 times in comparison to 2001. The demand for construction materials is not expected to decrease considerably as the state is planning to carry out such major projects as the expansion of the Tallinn-Tartu road in the nearest future.

The Ministry of Environment started preparing the National Development Plan for Utilising Mineral Resources Used in Construction from 2010 to 2020 in order to solve problems related to the increased consumption of mineral resources used in construction and other associated issues.

Economic development leads to the construction of roads and buildings. Since the natural resources used as construction raw materials are non-renewable, then it is important to use them in such volumes that do not threaten the economic development opportunities of future generations. The irreversible impact of extraction on the environment must also be considered. For example, it is impossible to restore lost habitats or changed water regimes to their former conditions. There are locations in the world where extensive areas have been rendered unfit for life as a result of extraction, such as the island of Nauru.

Extraction of mineral resources must be carefully planned in order to cover present and future needs, find ways of saving and using other materials. Conditions of equal competition must thereby be guaranteed for companies.

According to the National Audit Offices evaluation the extraction of minerals has not been regulated sustainably, because no national annual mining rates have been established, the opening of new quarries proceeds mainly from the enterprisers' interests and surveillance over extraction is insufficient. Extraction of minerals is not environmentally or human-friendly, because the opening of quarries is not coordinated by the state, the interests of local inhabitants and the natural environment are not considered much and old quarries are usually not reconditioned. Many companies have extracted minerals in higher quantities than permitted. The Ministry of Environment is primarily responsible for the occurrence of the problems that can be seen in this area.

Extraction of minerals would be considerably more efficient than at present if extraction permits were issued on the basis of national annual mining rates, the opening of new quarries was planned with state and local government plans that consider the interests of local inhabitants and environmental impact and if the land spoilt by extraction was reconditioned as soon as possible.

The key conclusions drawn from the audit are as follows:

- There is no decision made on the governmental level, for how long the known resources of sand, gravel, limestone and dolomite should last. No national annual mining rates for minerals have therefore been established, even though setting rates is one tool that could regulate the sustainable use of mineral resources. Regulation of the extraction of minerals used in construction is therefore not corresponding to the Sustainable Development Act.
- There is no clear overview of the available resources of minerals that could be used in construction. There are more alternatives for the locations of possible quarries than can be expected on the basis of the published information as minerals can be found in more places than so far disclosed in the national list of mineral deposits. More suitable locations can therefore be

found for quarries in the case of conflicts in the interests of local people and extractors, but this has usually not been done.

- The locations of quarries for extraction of minerals are selected according to the interests of extractors instead of weighing different options to find the most suitable sites. County and comprehensive plans generally pay no attention to the establishment of new quarries or the expansion of old ones and finding the most suitable locations for quarries by considering all alternatives is therefore impossible. Establishment of new quarries is basically decided by the issue of a geological exploration permit before the environmental impact caused by extraction is assessed.
- The role of environmental impact assessment (EIA) in the arrangement of mining has been small, because assessment is performed in such a late state that alternative locations for quarries are not considered. The issue of an extraction permit has never been refused on the basis of the EIA results. Moreover, the environmental impact assessment reports are usually not informative enough to serve as the bases for setting sufficient conditions for mitigating the negative impacts of mining in the extraction permits.
- Surveillance over mining has been insufficient. The mining reports submitted by extractors are not checked properly, which means that the actual quarried amounts may be considerably larger than shown. Cases like these cause damage to the environment, the state does not receive the fee for mining rights, the data on the natural resources balance sheet show the remaining stock bigger than it actually is and fair competition between mining companies is not guaranteed.
- The area of landscapes marred by mining is increasing, because new quarries are opened without old quarries being reconditioned. Establishment of the terms and conditions for reconditioning of quarries has been badly organised, there is no control and no national coercive measures are implemented. The law stipulates that extractors must start reconditioning the land spoilt by extraction as soon as technologically possible and the quarry must be reconditioned by the time the extraction permit expires, but these requirements are usually not followed. It is common for extractors to submit applications for extending their extraction permits and expanding the quarries before the expiry of the permits and once the permits have been extended, the deadline for reconditioning is postponed.

The **Minister of Environment** notes in his response that he is aware of the problems highlighted in the audit report and finds that the audit should have paid more attention to the circumstances that were not known to the Ministry at the time. The letter does not specify the shortcomings in the arrangement of mining that would have been of more interest to the Ministry.

Although the Minister of Environment agrees with many of the recommendations made by the National Audit Office, the response does not include any definite deadlines or actions concerning the elimination of the shortcomings. The Ministry notes that the recommendations whose implementation require amendment of legislation cannot be followed because they would be in contravention to existing legislation. The National Audit Office notes that adherence to the existing norms alone is not sufficient for the arrangement of sustainable extraction of mineral resources used in construction and the Minister of Environment must initiate the relevant legislative amendments.

The Minister of Environment is of the opinion that the recommendation made by the National Audit Office for increasing the efficiency of spatial planning will not alleviate extraction problems as current plans have so far not guaranteed the coordination of spatial development. The National Audit Office notes that consideration of plans when issuing geological exploration and extraction permits depends on the Minister of Environment.

The Minister of Environment believes that the current regulation is sufficient to guarantee surveillance over extraction quantities, but he is planning to further analyse the division of control tasks between two Ministries in cooperation with the Ministry of Economic Affairs and Communications. The Minister of Environment notes that inspection of extraction data was and still is a task of the Minister of Environment and its divisions, but finds that the Environmental Inspectorate should develop new, more efficient extraction report inspection mechanisms in cooperation with the Ministry of Environment, the Environmental Board and the Land Board. However, the Minister of Environment, unlike the Minister of Economic Affairs and Communications, believes that control of surveying quarries and extracted quantities or mine survey operations falls into the competency of the Technical Inspectorate.

The **Minister of Economic Affairs and Communications** writes in his response that both the Ministry and the Technical Inspectorate believe that the surveillance performed on the basis of the Mining Act means controlling the performance of the safety requirements established for mining. The Minister of

Economic Affairs and Communications notes that even though the competency of the Technical Inspectorate stipulated in the Mining Act is sufficient for inspecting surveys of quarried amounts of minerals, it does not perform this inspection because the relevant task belongs to the area of government of the Ministry of Environment.

Unlike the Minister of Environment, the **Regional Minister** agrees with the opinion of the National Audit Office pursuant to which initiation of mining as an activity of significant spatial impact should pass the public planning process. The Regional Minister finds that the state has failed to define its interests in mining activities clearly and that the competence of decision-makers is also a problem. However, the Minister does not agree with the criticism of the present plans of municipalities and county governments and finds that amendment of the current system and principles should be preceded by a thorough discussion.

Also the **Director General of the Environmental Inspectorate** and the **First Deputy Director General of the Land Board** sent their opinions about the audit findings.

Tarmo Olgo  
Director of Audit, Performance Audit Department