

THE STRATEGIC ENVIRONMENTAL ASSESSMENT REPORT OF THE RAIL BALTIC COUNTY PLANS

SUMMARY

The objective of the strategic environmental assessment (SEA) for the Rail Baltic county plans (hereinafter also CPs) is to estimate and assess the environmental impact that the construction of a high-speed rail is expected to cause, describe and assess alternatives, highlight positive impacts, including the advantages of the assessed alternatives, and plan measures aimed at avoiding and mitigating possible negative impacts to ensure that environmental considerations are integrated into the county plans. In the course of the work, all significant environmental aspects related to the planning of the railway and consequences due to the occurrence of possible impacts are surveyed.

The impact assessment has been initiated as a SEA for the CP route options. However, the design tasks include a task of preparing a preliminary design of the railway for the preferred route alternative, which impact of construction and later utilisation must also be assessed at the preliminary design accuracy level. The environmental impact assessment method required the initial selection of the most preferred route variant using the strategic environmental impact methods followed by a detailed analysis of the environmental impact of the selected and preferred variant along with the development of necessary environmental impact mitigating measures (e.g. noise barriers, assuring movement options for people, ecoducts etc.).

In addition to a regular analysis of primary data, four extensive surveys covering all analysed route options were conducted within the framework of the SEA:

- nature values survey;
- archaeological heritage survey;
- settlement structure baseline survey;
- cultural heritage survey.

In the initial stage of the SEA process, input for the development of route variants was given where the base criteria included the impact on nature (crossing the network of Natura 2000 areas was avoided to the extent that could cause a significant impact on the protected values), residential buildings and cultural heritage.

The SEA provided an assessment of the compared route variants by the comparative criteria which results were also displayed to the public.

The preferred route of the Rail Baltic Pärnu, Rapla and Harju CPs was assessed and mitigating measures were developed. The assessment

results at the CP accuracy level were disclosed along with the CP draft plan.

During public display process of the SEA, the public was largely involved at different levels. In different stages over 100 public discussions and meetings with the representatives of local residents, interest groups, authorities and the media were conducted.

The consultants of the SEA are Hendrikson & Ko and WSP Civils (leading experts Heikki Kalle and dr Charlotta Faith-Ell).

The SEA was conducted in accordance with the SEA assessment criteria developed in the programme, using the step-by-step assessment scheme:

- 1.** Comparison of strategic choices against the criteria (analysis of external impacts);
- 2.** Comparison of strategic choices against compliance with the environmental objectives (compliance analysis);
- 3.** Comparison of route variants by comparative criteria; in this stage the route variants were compared with each other focusing on the relative advantages of one or the other option (rather than on how much the railway impacts compared to the existing situation). Assessments regarding the existing situation were applied only to the extent that it was expected that the impact regarding one or the other criterion may cause a situation where it is likely that the environmental conditions do not comply with the current norms or are, in some other respect, largely influenced by individual as well as cumulative aspects¹;
- 4.** Assessment of the preferred route variant and development of mitigating measures – in this stage the assessment was conducted in two steps:
 - assessment of the impact at the accuracy level of Harju, Rapla and Pärnu county plans and determining the environmental quality target levels at the CP accuracy level along with suggestions regarding mitigating measures;
 - detailing mitigating measures at the accuracy level of the Rail Baltic railway preliminary design.
- 5.** Within the framework of the impact assessment of the Rail Baltic railway, the assessment of impacts associated with the implementation of the detailed plans of Ülemiste joint terminal in Tallinn, Pärnu passenger terminal and the depot located in Rae rural municipality was carried out.

¹ It is important to note that the route variants were worked out by the SEA experts based on the suggested base criteria (see the initial county planning outline of Harju, Rapla and Pärnu counties of the Rail Baltic 1435 mm route).

Based on the SEA programme approved by the Ministry of the Environment, the following procedures were conducted within the framework of the SEA:

- The strategic alternative of constructing a railway was compared to a situation where a railway is not constructed (0-variant) and the conclusion was made that establishing a railway is a preferred alternative provided that mitigating measures are applied, especially from the climate impact aspect.
- The route variants worked out during the development process of the Rail Baltic Pärnu, Rapla and Harju county plans were assessed based on the natural and human environment criteria and the SEA preference was given (route variants 1B+2B+3A+4G+5C+6B+7B+8A+16A+16B+14C+14G+11A-II+15B+11B-II).
- When developing route preferences, the aggregate preference of the SEA was followed generally, except for 5 route sections in Pärnu County where the county plan aggregate preference was respectively 4A-4C-4D+4F and 5D, which was not the SEA preference.
- When developing a more detailed preferred route in the county plan, the SEA gave an input for both the location as well as technological solutions of the route that are mainly included in the technical solution (except for some exceptions, e.g. the technological alternative of the barrier release where currently no applicable technical mitigating measure to avoid the collision risk with people and animals exists and, therefore, the alternative is not applicable).
- Constructing and using the railway has an indirect transboundary impact on all countries that are located in the Rail Baltic region, including Finland and Poland. Transboundary impact as a direct impact was analysed in relation to the construction of the railway in the regions belonging to the Republic of Latvia. The most significant potential influence of building and using the railway is on Mernieku Dumbraji nature area in the Republic of Latvia where a negative impact on the protection plan of the nature area can be avoided if mitigating measures are applied. To ensure conservation of the protected habitats, the water regime must be maintained unchanged.

Taking into account the positive impact of the railway on the mobility and reduction of climate impact (keeping in mind the fact that using renewable energy to operate it is suggested), construction of the railway is acceptable if the occurring environmental impacts are lessened using the mitigating measures described in the SEA report throughout the entire designing, building and operating period. It is necessary to follow appropriate environmental management measures in compliance with a specifically prepared environmental management

plan that includes monitoring and follow-up procedures to assess and adjust the efficiency of the measures and takes into account the need for experts with required qualification to be part of the project team. It is important to carry out additional surveys and implement compensatory measures before the construction stage.