

Selection of the location for North-West Estonia regional landfill. Case study

General background

Currently there are around 220 small landfills for municipal waste and 42 landfills for industrial waste in Estonia. According to the policy of the Ministry of Environment most of those landfills will be closed in mid-term period and will be replaced by big regional landfills. The reasoning behind this is that current small landfills are dangerous to the surrounding environment as they were constructed decades ago when environmental standards were very weak. Approximately 7 regional landfills are to be built in period of 2001-2009 according to standards of EU landfill directive 99/31/EC. As establishing of a new regional landfill is very costly ISPA co-financing is planned for financing of all those landfills. One such regional landfill is already in operation Järva County while for others are in stages of site selection, feasibility studies or EIAs.

Problems of site selection for North-West Estonia regional landfill

One of the regional landfills is planned for the North-Western part of Estonia. According to the plans of the Ministry of Environment, submitted in accession negotiations to the European Commission, it will be constructed by the year 2006. The landfill is to serve an area of 120,000 people as its hinterland is Lääne County and partly the Harju County and Rapla County. Developer of the landfill is Ragn Sells Eesti AS, a subsidiary of Swedish company Ragn Sells. Ministry of Environment plans to apply for ISPA co-financing of 6.38 million Euros to the project in 2007.

While environmentalists are not questioning the need for safer landfills which would not have leakages of dangerous substances to the groundwater like many older ones the process of site selection for the North-Western regional landfill has been poor. Since the very beginning the entire project of site selection for the North-Western regional landfill has been pushed and lead by Ragn Sells. Starting from 1998 they have been advocating for selection of the Ääsmäe bog in Saue municipality as the site for waste management facility and landfill. In 1998 the construction of the landfill was not started partly because the local people were categorically against the construction of the waste management facility in the selected place.

In the autumn of 2001 it became evident that Ragn Sells keeps developing its plan to construct a landfill in the Ääsmäe bog and in course of 2002 the EIA was completed. The plan has caused a negative reaction of the local population as 668 signatures were collected against the plan to construct the landfill were collected from four villages situated around the Ääsmäe bog. Estonian environmental NGOs examined the preparatory work for the

construction of the landfill, including pre-feasibility study from 1998 on the site selection for a regional waste management facility, ordered and financed by the developer Ragn Sells. It is difficult to understand why developer prefers the site of Ääsmäe bog as this location rated only third among the analysed sites. According to NGOs the development of the North-Western Estonian landfill by Ragn Sells on their own initiative is in conflict with the draft national waste management plan.

The research done by Council of Estonian Environmental Organisations, the cooperation forum of 10 bigger Estonian environmental NGOs, revealed that the construction of the landfill in site of Ääsmäe would involve remarkably high environmental risks and all environmental impacts cannot be mitigated. Main problems identified by NGOs are:

- * Creation of big regional landfill will be combined with closure of 11 existing smaller landfills. It means that for local population the distance to the landfill increases and so does the cost of transportation of waste to it. It is possible that as the fees by waste handling companies increase for population the problem of illegal waste dumping may rise.
- * The western part of the Ääsmäe bog (69.2 ha), which has been selected for the site of the landfill, lies in a hydrogeologically weakly protected area. The distribution of layers of clay, which could ensure sufficient groundwater protection, is fragmentary and in places the layers of clay are missing altogether. The problems relating to the bearing capacity of the ground have been referred to as well.
- * Groundwater in the mentioned area is under pressure and in some places higher than ground level. At the same time the construction of a landfill requires the removal of peat, which opens a way out for the pressurised groundwater. Soil drainage should precede any construction work, but this would lower the groundwater level by almost 3 metres and result in spoiling the water conditions of the whole area.
- * Although peat is also produced in the same bog, the area designed under the landfill is relatively natural and covered with forest. In 1998, a provisional botanical study (on three hectares of the total area) was carried out in the course of which a comparatively great number of protected plants of categories II and III were discovered. A nesting area of the first category protected species of the eagle is located in the vicinity.
- * Visual nuisance might also cause problems because the height of the planned landfill will reach up to 35 metres while the surrounding forests are 10...18 metres tall. Consequently, the landfill can be seen from far way, including from the Via Baltica motorway.

Council of Estonian Environmental Organisations has suggested that the development of the North-Western Estonian landfill has to be guided by the Ministry of Environment, not by private company Ragn Sells. Regional waste handling centres jointly owned by municipalities shall be founded for organising waste management in the service area of intended landfills. One of their main duties will be the actual organising of waste handling and the formation of optimum prices in the service area. If the landfill is wholly owned by private company, it will be difficult, if not impossible, for a regional waste handling centre to perform its duties. Equally detailed analysis should be carried out in alternative locations for the regional landfill prior to any future decisions. The very need for North-Western Estonian landfill has to be better reasoned and explained.