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I have been a project manager of project related to studies of large extracted mire areas in surroundings of Riga with aim to work out measures for mire rehabilitation. Lot of new opinions I obtained during this project, however before this project I have long years experience in mire and peat studies. I also discussed with my colleagues (mentioned as co-authors) and I would like to present our ideas.

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### **Rehabilitation of mires after peat extraction in Latvia.**

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Peat extraction and utilisation for industrial purposes have taken place in Latvia for many years. Peat products have been exported since 1930ies, therefore, peat deposit development, extraction and utilisation experience is gathered. Currently extraction volume is 0.5 – 0.6 million tons per annum, but extraction volume has trend to increase. Large areas of peat extraction fields have been utilised and field have been left for renovation.

Present situation of mires subjected to peat extraction is different in Latvia. Although experience of rehabilitation already carried out in several peatlands allow to understand that rehabilitation is very complicated system where all aspects should be taken in account.

Scientific and technical knowledge is used to choose the best measures for restoration of peatlands after peat cutting. The interest and limits for extracted mire rehabilitations should be weighted very carefully: what is more important for exact place – rehabilitated mire, cranberry growing, forest or area for landed estates?

According to laws of Latvia an appropriate rehabilitation plan before the peat-cutting should be prepared. Unfortunately all necessary information is not always available. It is important to take into account all aspects – particularities of geological and hydrological conditions, history of mire development, site location related to cities or towns, access to roads. In some situations measures of mire rehabilitation is restricted by legislation of Latvia. For example large areas of the Cena Mire were planned to prepare for ponds of waterfowl breeding, but it was impossible due to 15 km protection belt of Riga airport.

Number of projects related to the natural mire rehabilitation is not successful, even after 10 years after peat cutting just some birches and grass hillocks appear in the former peatlands. Very often it can be explained by insufficient studies of mire development reasons.

If extracted is only some part of mire, then it is very important to estimate how rehabilitation measures will influence natural or nearest semi natural mire areas.

Rehabilitation of each mire after extraction is special complex of measures, which depends on mire depression character, geological history and hydrogeological conditions, as well as from extracting

method and technique used. Only multidisciplinary studies of mire can give expected results of mire rehabilitation.