

# Profitability of Forest Land Consolidation – a Finnish Case Study

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## SUMMARY

In many places, the shape or size of forest properties leads to high harvest and management costs, which lowers the incentives to manage the forest. Forest land consolidation is carried out in parts of Finland to reduce the problems caused by forest properties that are long and narrow. To achieve the support of central stakeholders, it is, however, important to have knowledge on the profitability of the projects. A cost-benefit analysis of a Finnish forest land consolidation project is presented. The focus is on cost-savings in harvests and management, increased stumpage prices and on the increased activity of owners after land consolidation. Yearly benefits of the Pahkakoski forest land consolidation project are estimated, and the net present value of the project is calculated. A sensitivity analysis is carried out to analyse the effects on profitability of factors such as the discount rate. The analysis shows that the forest land consolidation project was profitable. Central factors influencing the profitability of the project include cost savings due to economies of scale, increases in harvest activity and increased growth of the forests. Furthermore, the discount rate and time horizon, as well as the estimated future stumpage price, influences the overall result. The creation of jointly-owned forests, which is considered an important part of Finnish forest land consolidation, improves the profitability of the project, but is not a prerequisite for the project to be profitable. The results show that the profitability of land consolidation projects can be greatly increased by combining measures, such as the rearrangement of parcels, road construction and remedial drainage.