

# **Preliminary Study for Holistic Approach Assessing Land Consolidation Effects in Finland**

**Kalle Konttinen and Sami Ovaska (Finland)**

**Key words:** Access to land; Cadastre; Land management; Land readjustment; Land consolidation

## **SUMMARY**

Effects of land consolidation projects are traditionally measured by agricultural indicators e.g. increase in parcel size or their better location. However, more expectations and objectives are set for land consolidation projects in the future; not only to improve farm performance but also vitality in rural areas.

The first objective of this preliminary study was to develop new set of indicators to capture wider spectrum of effects in Finnish land consolidation projects. Secondly, municipality-level statistical datasets were applied in comparison to assess differences in development paths. Municipalities selected for comparison were Sievi, located in Northern Ostrobothnia, and three near-by municipalities (Haapajärvi, Reisjärvi and Kiuruvesi) with quite similar farm structure (dairy farms). Sievi is unique case in Finland; since 2000 major proportion (3/4) agricultural land has been rearranged, where no actions were made in other three municipalities.

Total of 35 indicators were developed for three main areas; 1. Areal attractiveness and firm structure and economics, 2. Environment and 3. Social effects and sense of community. Developing process included workshop with experts from Natural Research Institute Finland and National Land Survey of Finland, but also literature review. Even though focus was set to other than agricultural indicators, they were not completely left out. In this case selected ones were connected more to wider social phenomenon such as rented land transfer to active farmers.

---

Preliminary Study for Holistic Approach Assessing Land Consolidation Effects in Finland (10867)  
Kalle Konttinen and Sami Ovaska (Finland)

FIG e-Working Week 2021

Smart Surveyors for Land and Water Management - Challenges in a New Reality  
Virtually in the Netherlands, 21–25 June 2021

Municipality-level data revealed differences between development paths. Sievi showed lowest proportion of quitting farms, young farmers could be attracted to be a farmer and use of contractor services increased rapidly; in 2010 proportion was 49% reaching 69 % in 2016. Also, Sievi showed an exceptional trend as proportion of rented land decreased during 2000-2018 from 30 % to 24 %. Partly due to this, investments in subsurface drainage were higher. Also, clearing peatland for agricultural purposes remained low. Social capital indicator showed farmers' high willingness to cooperate and learn from each other rather than increase of mistrust.

Current preliminary study showed that several municipality-level indicators were positively connected to land consolidation projects. However, results must be interpreted with caution; causality between indicator values and land consolidation actions is not always clear. Nevertheless, indicators developed provide starting point for a better understanding and measuring whole spectrum of effects, but also provide better tools to point out benefits of land consolidation projects on rural areas in the future.