SMART SURVEYORS FOR LAND AND WATER MANAGEMENT
CHALLENGES IN A NEW REALITY

FIG NL THE NETHERLANDS

e WORKING WEEK 2021
20-25 JUNE

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Paper ID-10867

Preliminary study for holistic approach assessing land consolidation effects in Finland

23 June, 10:30 – 12:00

content

- Preliminary study for holistic approach assessing land consolidation effects in Finland (article text)

- New ways of presenting need for land consoldations at agricultural areas in Finland – NLS Finland development project 2021

- Results of Research made by Natural Resources Institute Finland (Luke) 2019 – Effects of Land Consolidation
- Comparison of four rural municipalities
  - Sievi, 10 017 ha agricultural production
  - Haapajärvi, 9 436 ha agricultural production
  - Kiuruvesi, 23 607 ha agricultural production
  - Reisjärvi, 7 541 ha agricultural production
- Similar municipalities
- Only Sievi had experienced Land Consolidations (70 % agr. area) in modern times 2005-2020

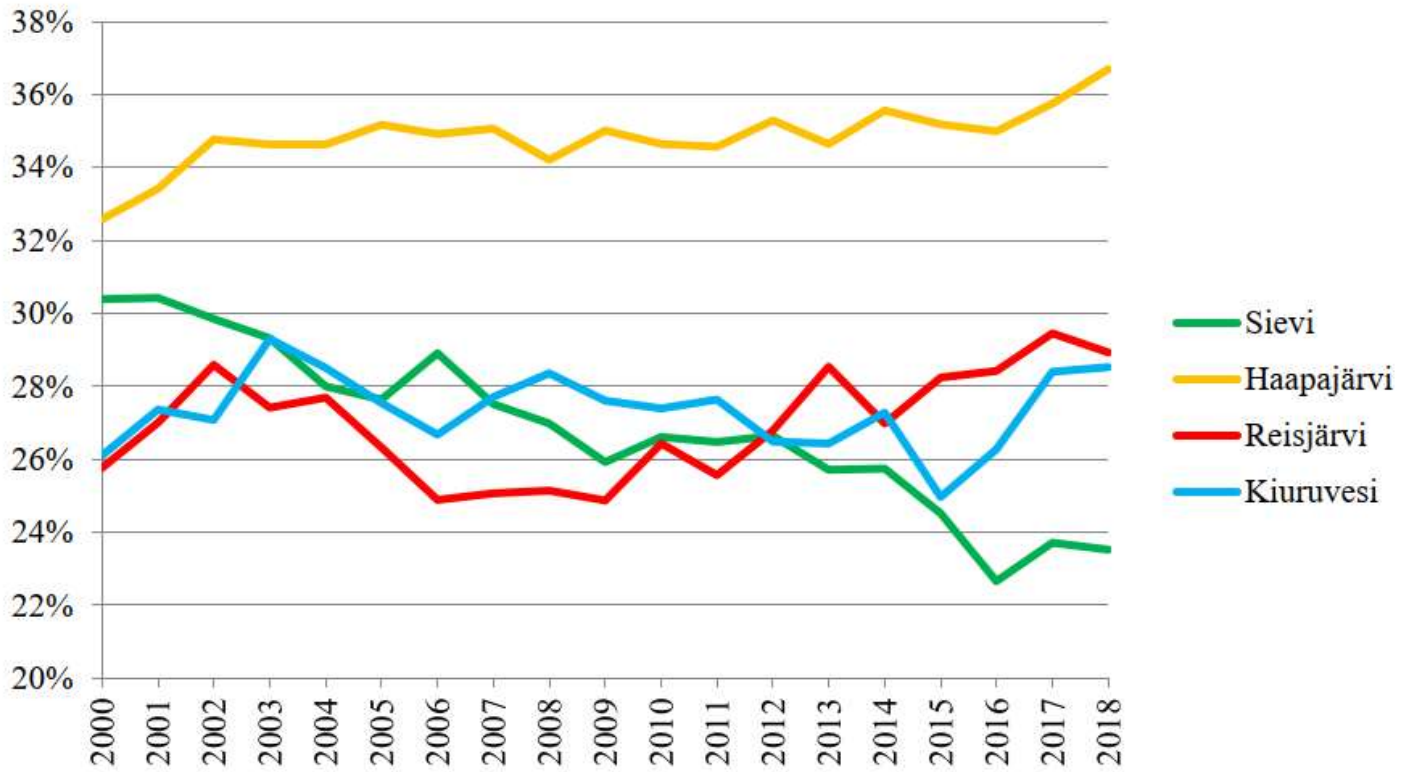


Figure 3. Percentage of rented land (2000-2018). Sievi municipality with extensive land consolidations compared with three other near-by municipalities where no actions were made. Source: Finnish Food Authority.

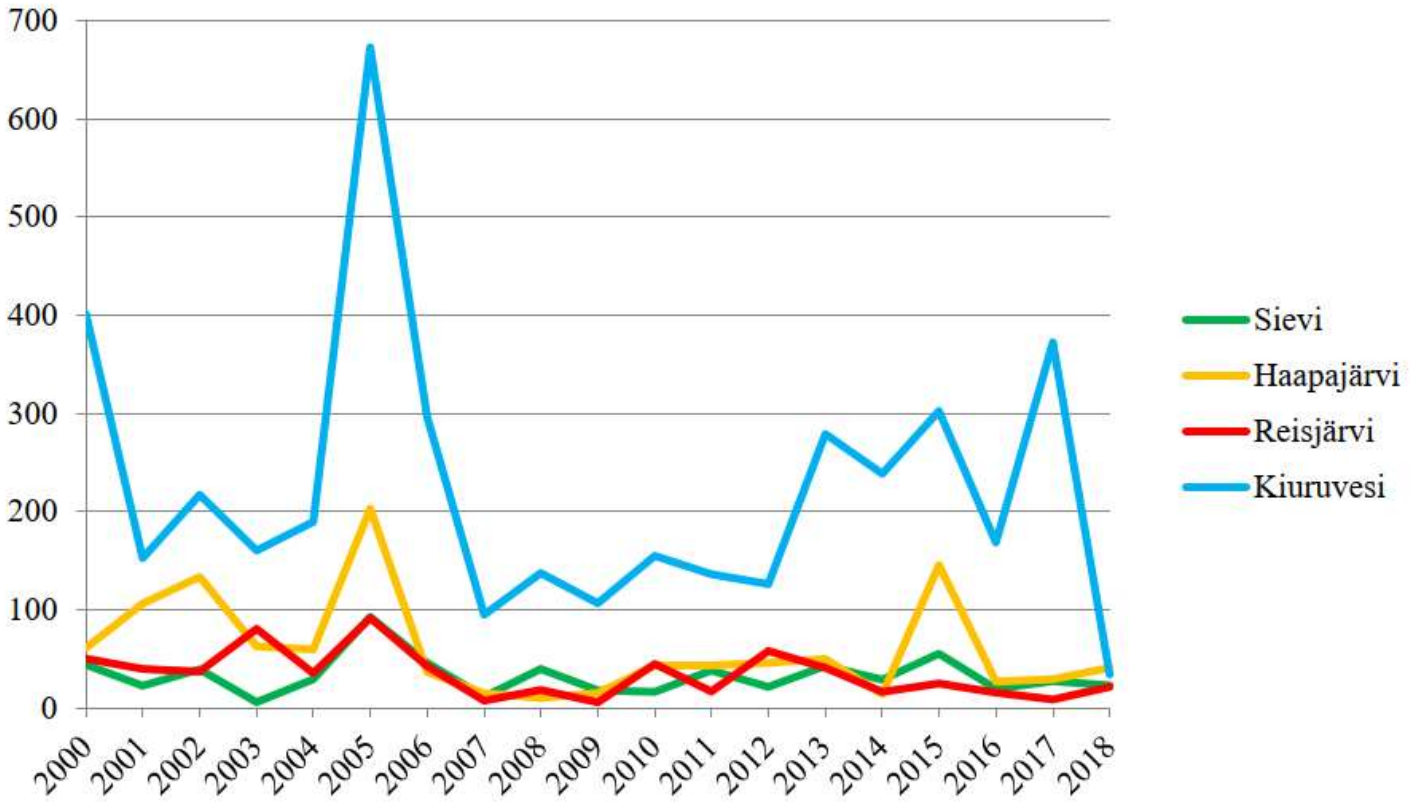
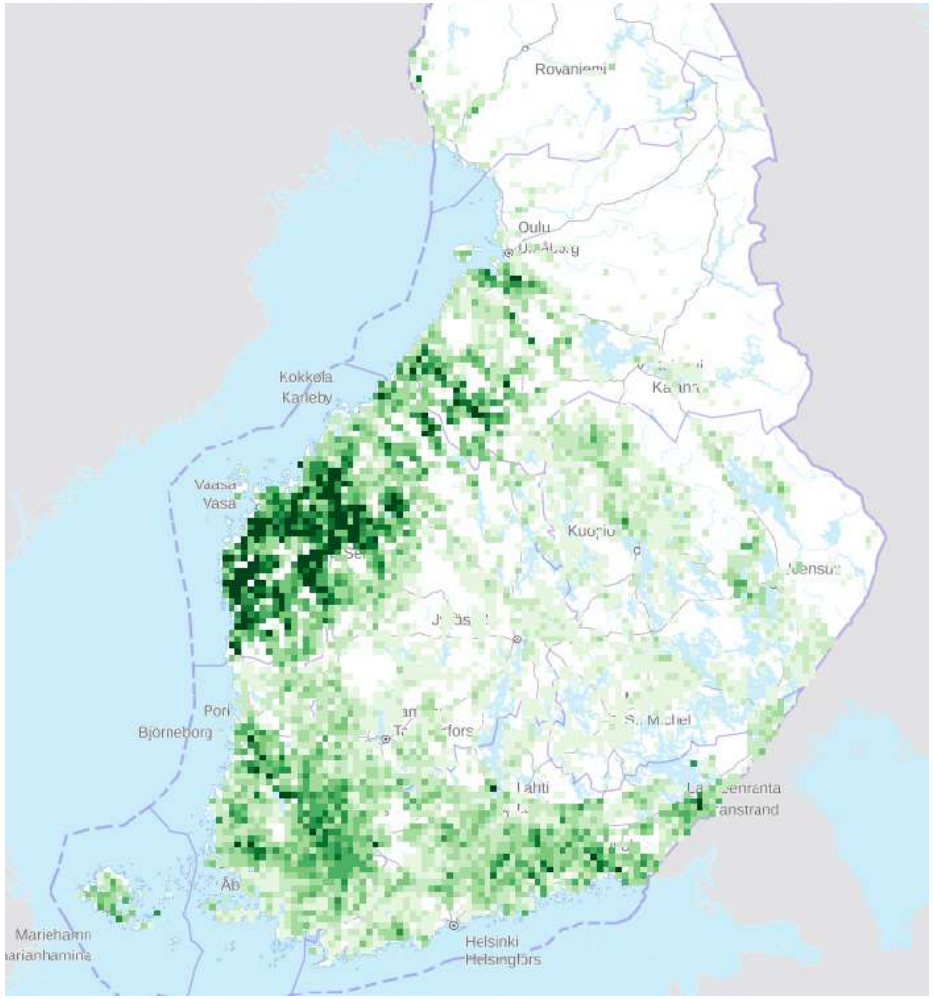


Figure 4. Cleared new land for cultivation per year (ha) during 2000-2018. Sievi municipality with extensive land consolidations compared with three other near-by municipalities where no actions were made. Source: Finnish Food Authority.

- New ways of presenting need for land consoldations at agricultural areas in Finland
- NLS Finland development project 2021



- Parcel growth potential in 5x5 km squares.

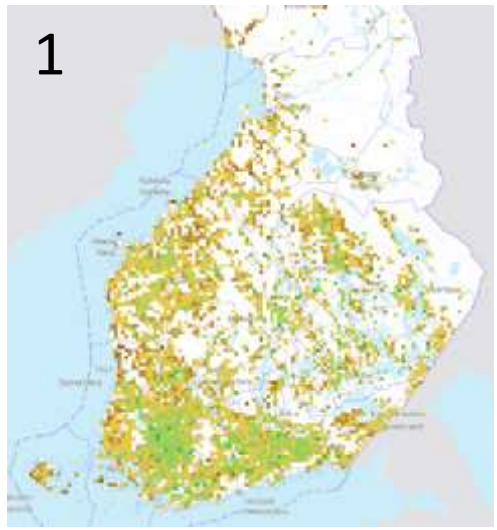
- Potential:

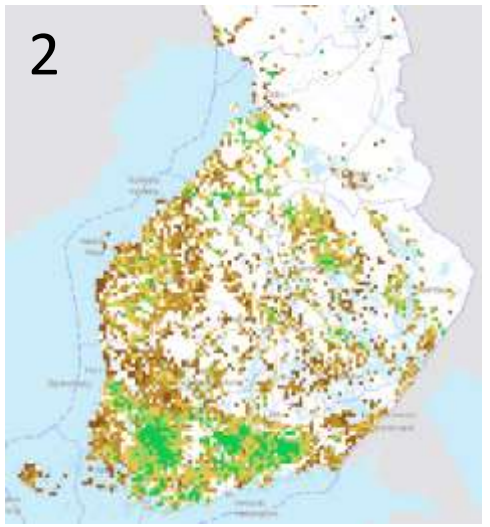
No — A lot

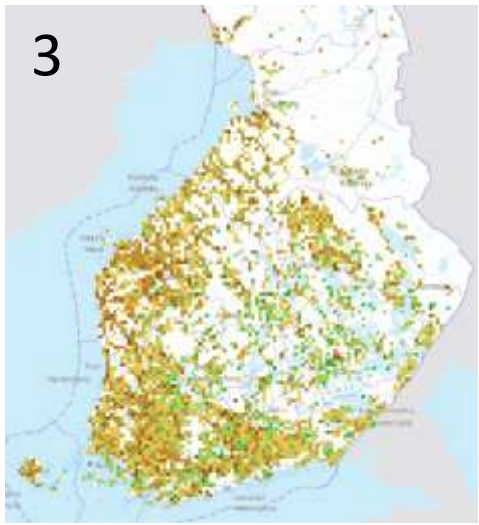
Farm delopment potential

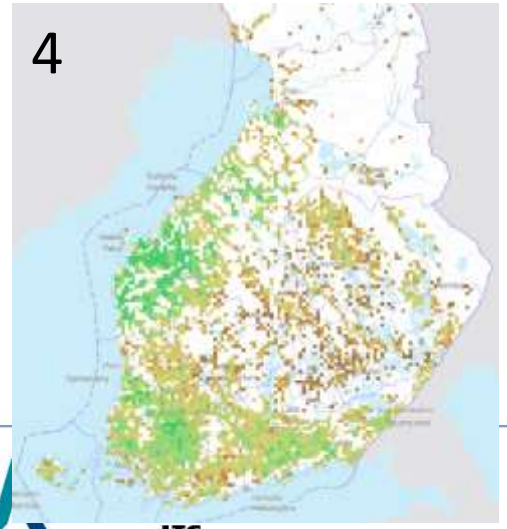
Combination of five different variable

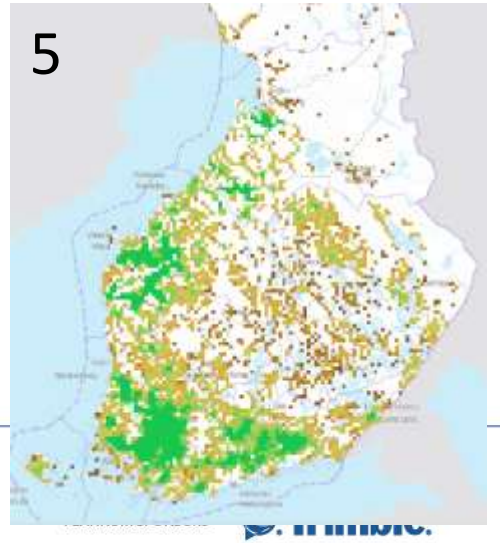
1. Farm parcels fragmentation
2. Average farming parcel size
3. Average farming distance
4. Parcel merge potential
5. All farmland 10 km from farmhouse











great small

Parcel growth potential vs. Farm development potential