BIOGRAPHICAL NOTE

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Session Nº. 2| Moderator

Session Nº. 3| Fundamental Role of Cadastral Systems and How That Might be Challenged by the Climate Change

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PHOTO

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Fundamental Role of Cadastral Systems and How That Might be Challenged by the Climate Change

Conference and Plenary Meeting of the Permanent Committee on Cadastre in the European Union (PCC)

May 26, 2021

Pekka Halme

Content

- Government aims at carbon neutrality
- Cadastral toolbox
- Some examples
- Conclusions

Inclusive and competent Finland – a socially, economically and ecologically sustainable society

Current government's programme

- Finland is carbon neutral by 2035 and carbon negative soon after.
- Electricity and heat production in Finland must be made nearly emissions-free by the end of the 2030s.

Land use

Land-use sector is both a significant carbon sink and a source of CO2 emissions

Cadastral System

- Comprises the cadastral register the map and the land register
  - Boundaries of real estate and location of parcels on the map (DB)
  - All real estate and changes in them registered in the cadastral register.
- The title and mortgage register
  - List of rights concerning a property
  - Information on the rights and restrictions concerning a real estate to strengthen the rights of right-holders and to protect the interests of third parties.

https://mmm.fi/en/land-surveying-and-spatial-information/cadastral-system-and-surveying

Cadastre and Climate Change!

Cadastre and Land Register contain

- no environmental information
- no building information
- only marginally land use planning information
- owner data

Other databases

- topographic and land use data
- soil data

Keeping Track on Land Use Changes - Project Mammutti

- Joint undertaking: Finnish Environment Institute, NLS, Natural Resources Institute Finland, Finnish Food Authority, Finnish Forest Centre
- Improve the knowledge base describing land use and its changes for planning, decision-making, and reporting
- Create a common operating model for organisations producing land use information enabling regular monitoring of land use and its changes using data from different actors

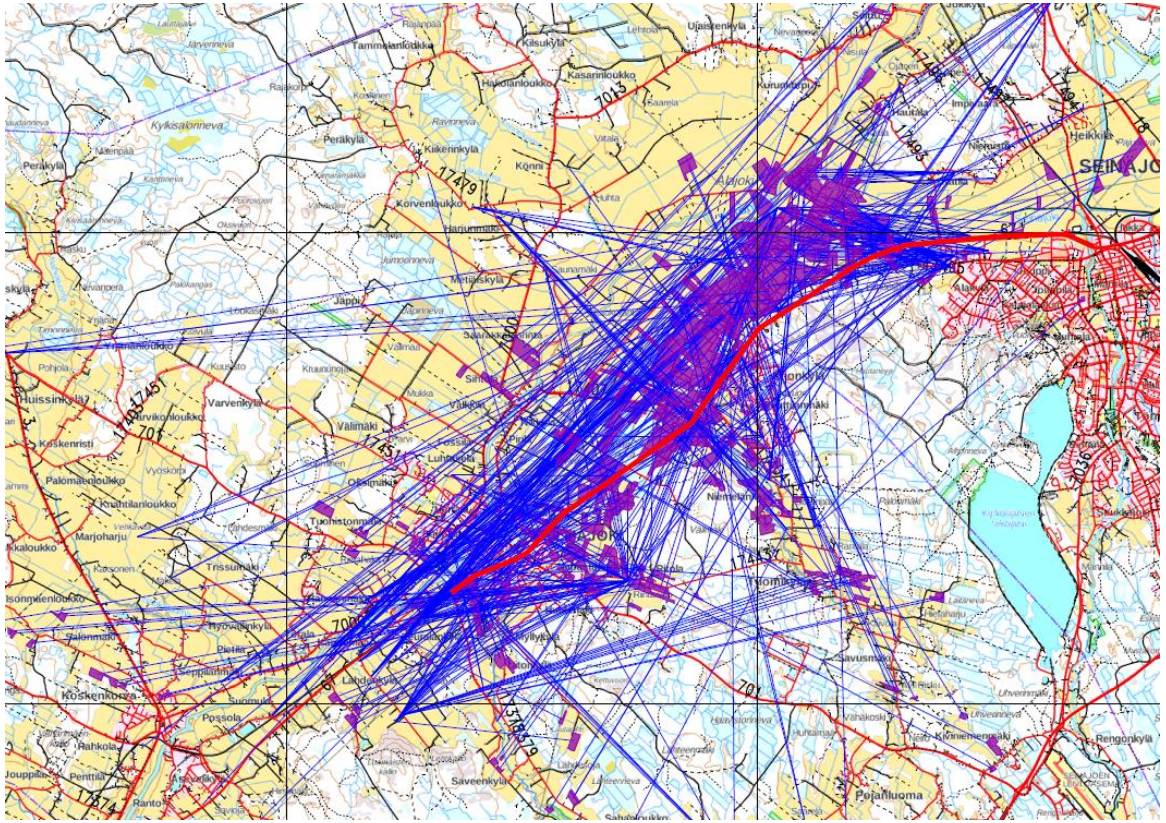
- Does not cover the Cadastral data so far

Land Consolidation

- Utilise a broad range of data from different sources
  - Parcels and plots
  - Boundaries
  - Ownership
  - Cultivation type
  - Road network
  - Clearing of new fields
  - Leasehold vs. freehold

Multiple Effects of Land Consolidation

- Decreasing production costs of farms not the only goal
- Good examples projects that affect e.g.
  - environmental emissions
  - traffic safety
  - vitality of the region.
- The benefits for the farmers, society and environment come hand in hand.



Straight-line distances from farm centres to their fields. You need to use the main road with an average daily traffic of 10 000 vehicles.

Conclusions

- The Cadastre alone cannot fight the climate change
- It is done with
  - interoperable (base) registers and other databases
  - cross-sectoral cooperation
  - land-use
  - land-use planning
  - research and technology
- It is done with consistent decision-making

Advancing together

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