“High Nature Value Farmland in Europe”

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Identifying HNV farmland in Estonia

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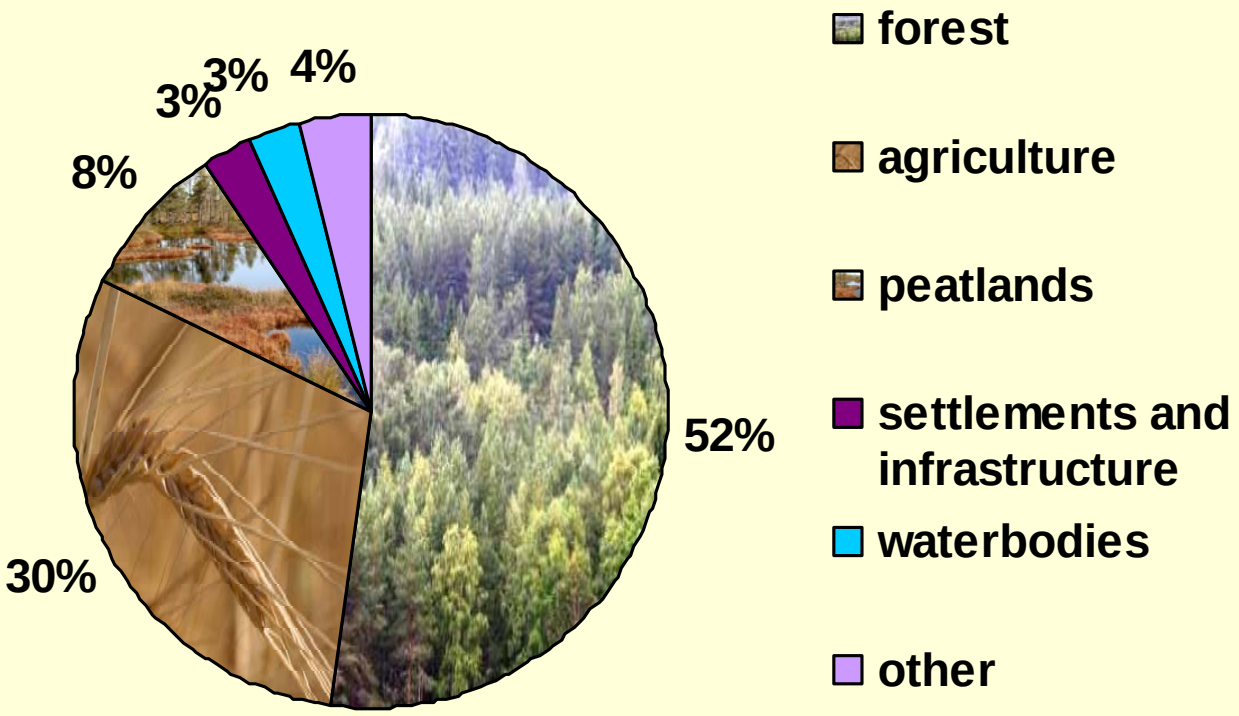
Maaelu Arengu Euroopa Põllumajandusfond: Euroopa investeeringud maapiirkondadesse

Facts and figures for Estonia - area

Total area - 45 227 km2, including 43 200 km2 of land area



Šource: Estonian Base Map

Agricultural production

- **Area under Single Area Payment Scheme (SAPS) ~865 000 ha (in 2008)**
  - **~27% permanent grassland**
  - **~72% arable land**
  - **~ 1% permanent crops**
- **~19 000 farm holdings applied for SAPS**
- **~7000 over 2 European Size Unit holdings (~37% from total)**

HNV farmland types

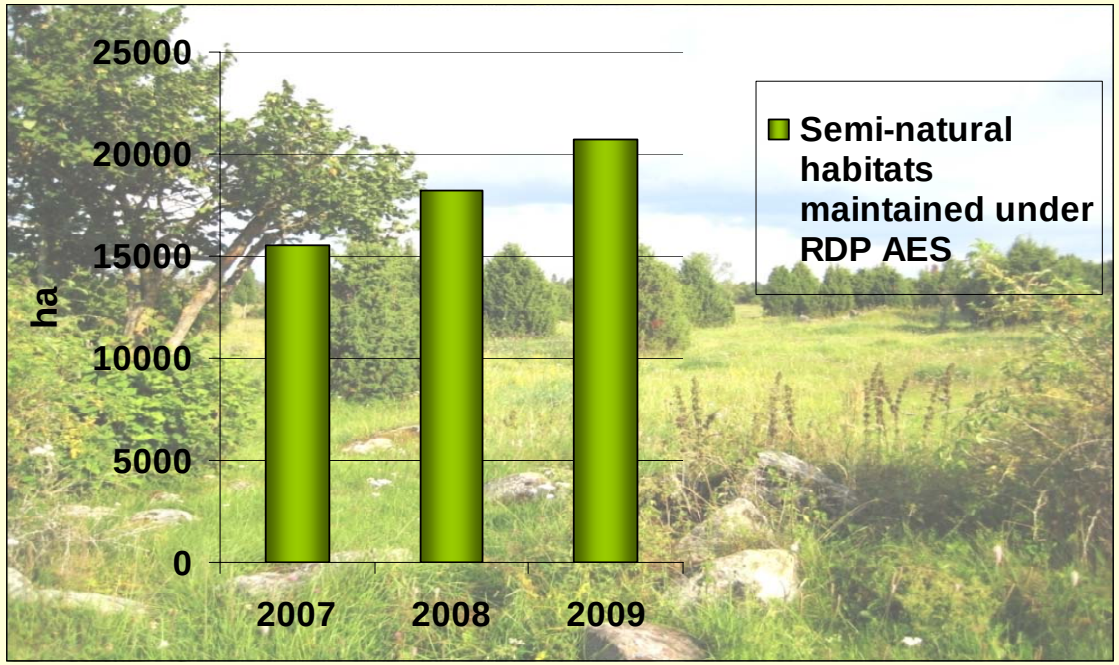
- **Type 1 – semi-natural vegetation**
- **Type 2 – mosaic landscapes**
- **Type 3 – areas for populations of species**

HNV farmland in the frame of RDP

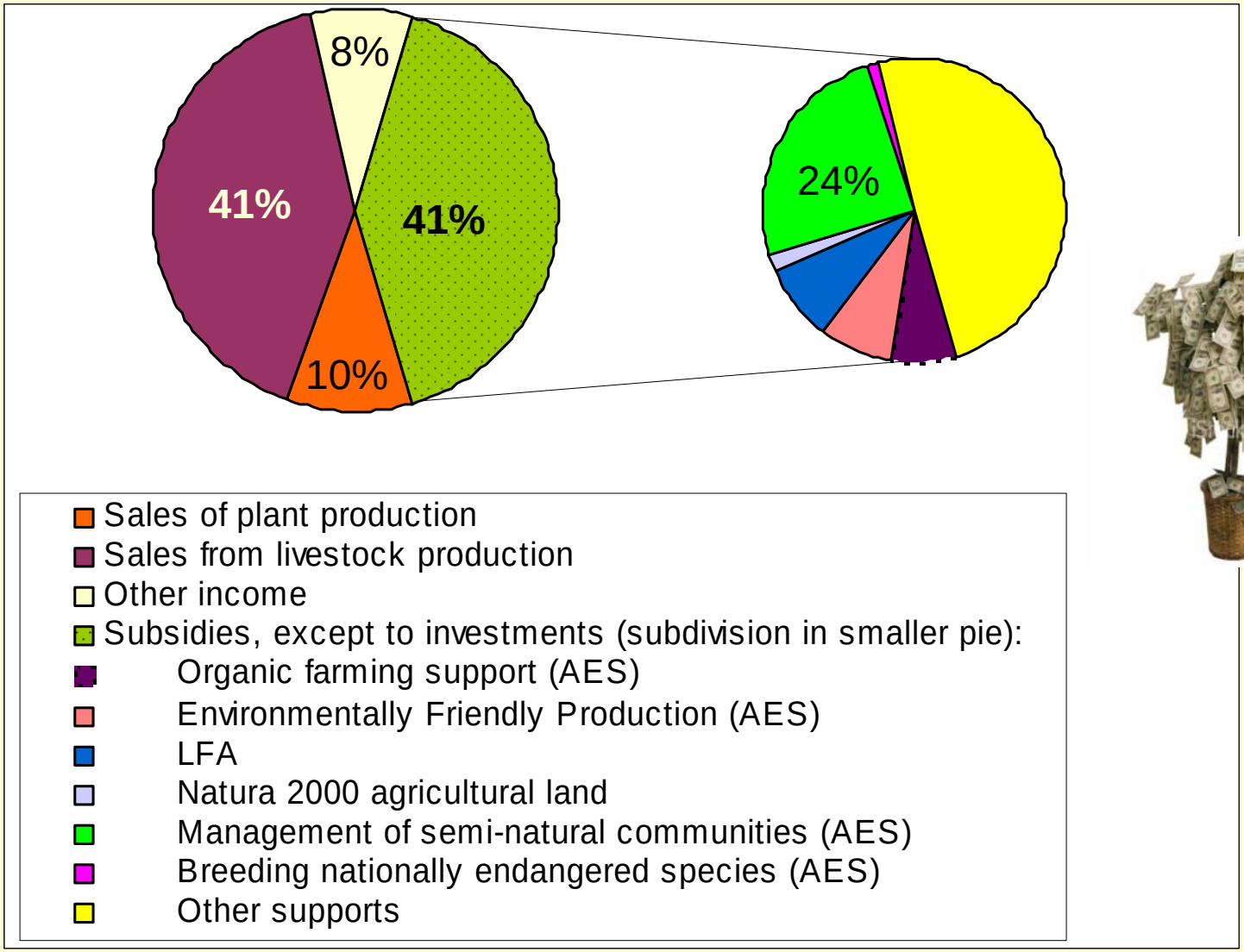
Semi-natural habitats in Natura 2000 → supported HNV areas in the current Estonian RDP context

In total there are more than 100 000 ha of semi-natural habitats

Type of habitat	1950s	2000
Wooded meadows, ha	800 000	1500
Alvars, ha	44 000	9000
Flooded meadows, ha	100 000	15 000
Wooded pastures, ha	200 000	3000



Farm income structure



Farms receiving RDP 2007-2013 AE support for management of semi-natural habitats in 2008 based on FADN data (ARC, 2010)

Semi-natural habitats are HNV areas, no arguments

but

there are nature values outside of those areas!

Other areas with high nature values?

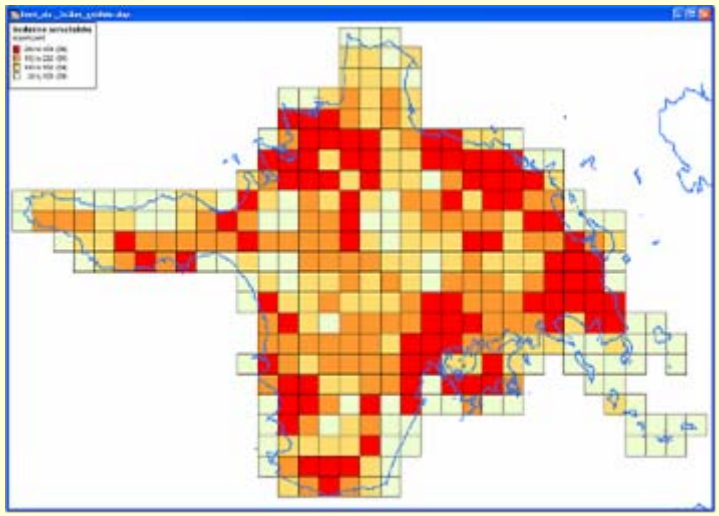
Especially important are mosaic agricultural landscapes with small fields and abundant landscape elements (Type 2) - how to measure and how to draw a line between HNV and non-HNV?

Process of defining the HNV farming concept for Estonia (1)

- **Current JRC HNV map was reviewed in comparison with more recent Natura 2000 and IACS/LPIS data – accuracy of the map not sufficient for practical application in RDP context**
- **HNV work group was established in 2009 in ARC for common understanding and development of HNV concept suitable for Estonian conditions**
  - ARC, MoA, MoE, Paying Agency, universities, NGOs involved
  - Discussions on suitable mapping methodologies
  - Inclusion of information on farming intensity and landscape mosaic into HNV mapping methodology
  - Discussions on future scenarios for potential implementation of new HNV concept

Process of defining the HNV farming concept for Estonia (2)

ARC HNV working group



Grid cell = 2x2km

Grid mapping approach agreed

12-15 HNV indicators chosen for further testing

Chosen characteristics (1)

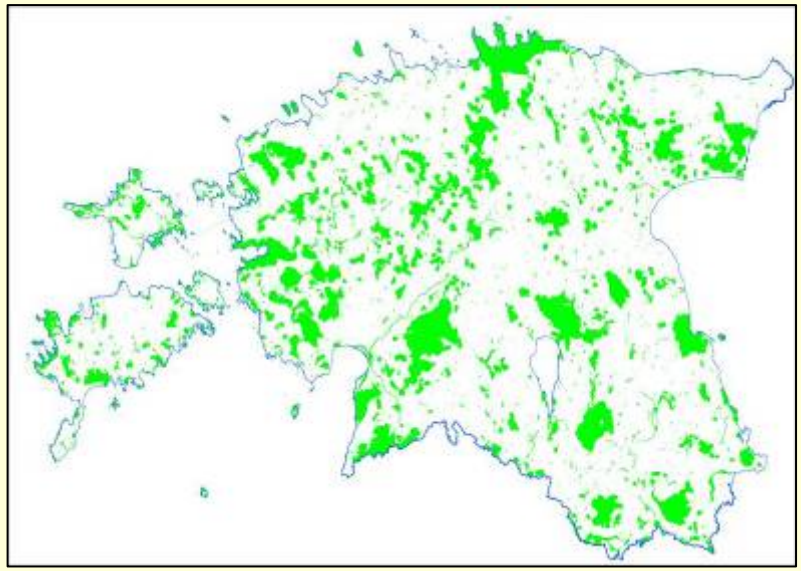
Selected characteristics of low farming intensity:

- **Share of arable land and permanent grassland**
- **Number of animals and types, animal density**
- **Share of organic land**
- **Amount of mineral and organic fertilizers used**
- **Share of peat soils, calcareous and eroded soils**

Chosen characteristics (2)

Selected characteristics of nature conservation:

- Share of semi-natural habitats
- Farmland bird species diversity
- Share of protected areas and Natura 2000 areas
- Presence of protected species

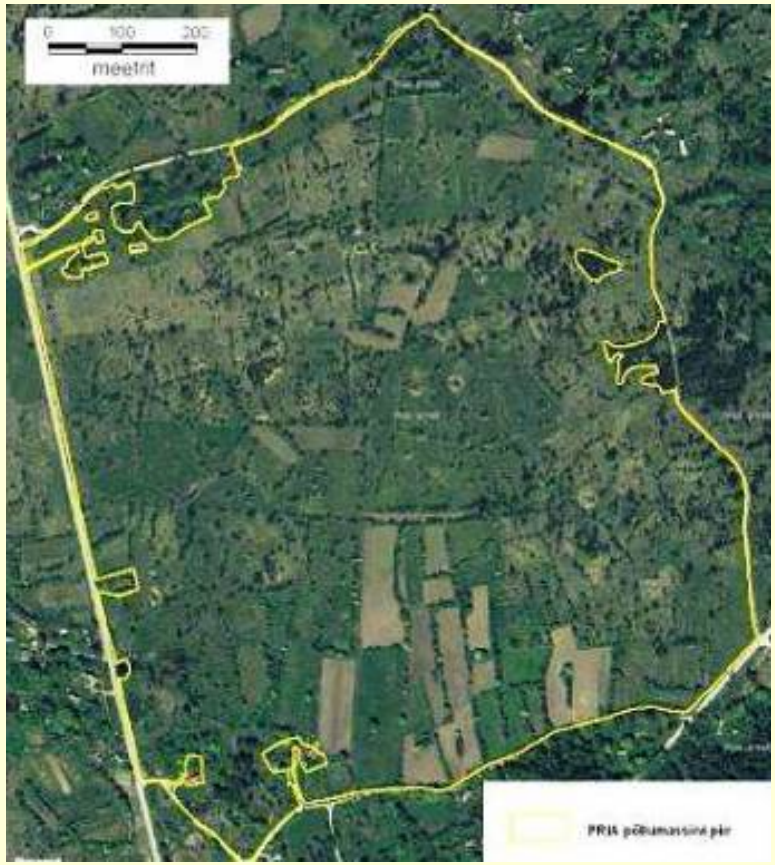


Natura 2000 and semi-natural habitats in Estonia, ARC 2010

Chosen characteristics (3)

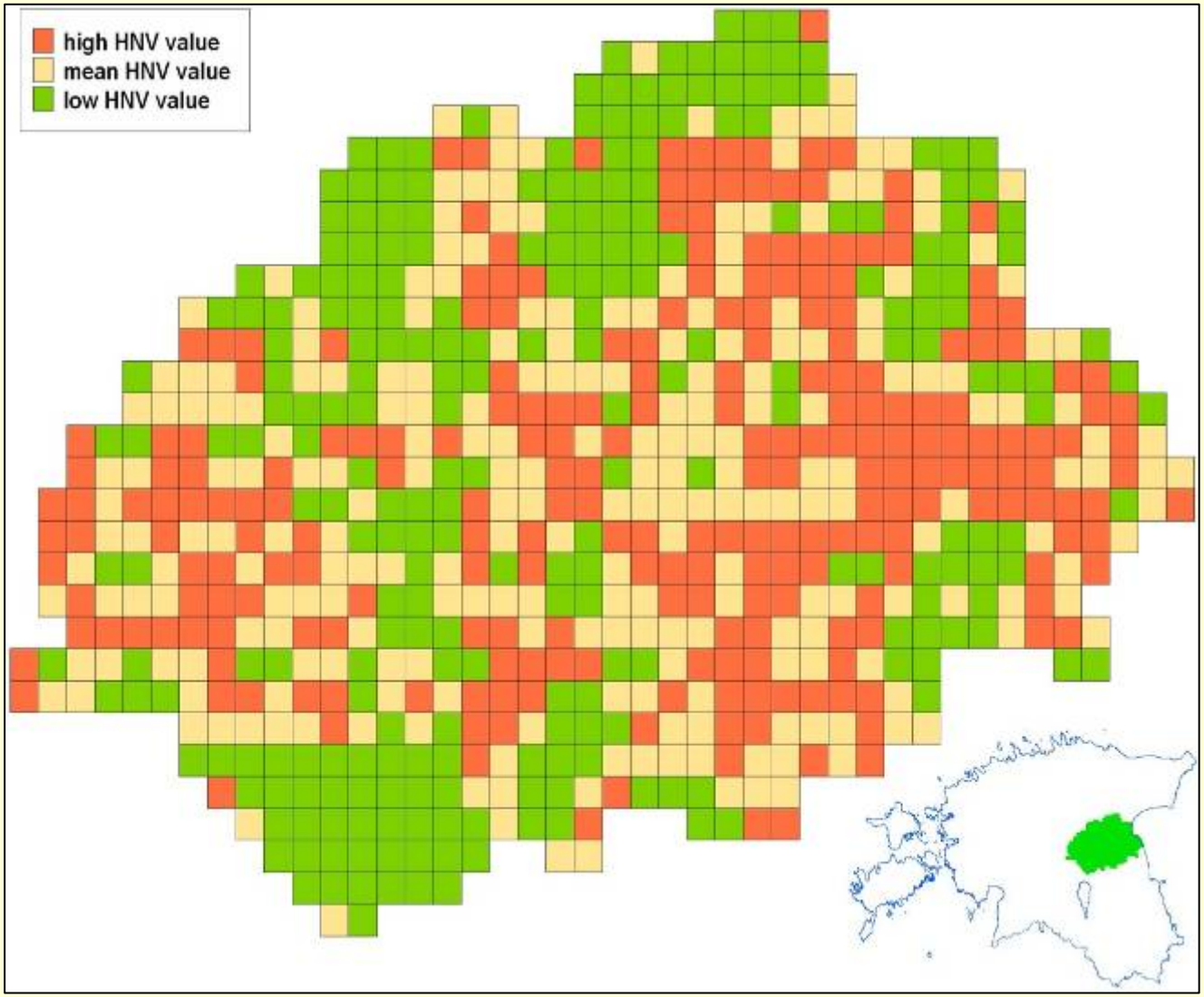
Selected characteristics of landscape mosaic:

- **Size of field parcels (physical blocks)**
- **Number and size of fields**
- **Field edge index, types and total number of areal landscape elements**
- **Share of valuable landscapes**



Expected result

Each cell will have an aggregated value that corresponds to the HNV features and characteristics at the site



Why grid-solution? (1)

Enables to:

- **bring out variations of HNV farmland;**
- **identify the exact locations of HNV areas and to see the components of the area values;**
- **combine different data spatially (nature values *versus* agricultural statistics);**
- **update and add new data operationally (e.g. scientific and monitoring data);**

Why grid-solution? (2)

Enables to:

- **use aggregated and analyzed grid cell information by different stakeholders (ministries, paying agency, NGOs etc); especially important in RDP context - possible to link with LPIS information;**

- **generalize and examine regional needs and delivery mechanisms (e.g. supports, advisory services etc.) to maintain defined values.**

Currently...

... work on assessment of availability and applicability of some of the characteristics as well as determination of threshold values for HNV and non-HNV is taking place

- **comparison values? Estonian-European scale?**
- **lack of scientific information on species and habitat dependency on management**
- **defining HNV forestry areas?**

Thank you for attention!

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More information: http://pmk.agri.ee/pkt