

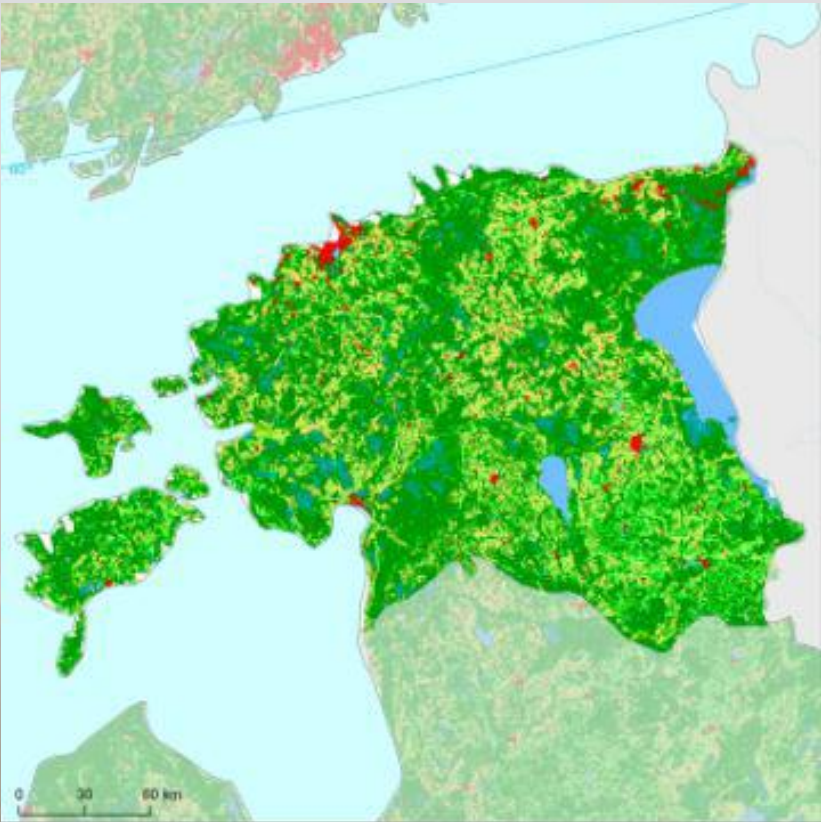
Mainstreaming Biodiversity in Agricultural Landscapes: the case of Estonian grasslands

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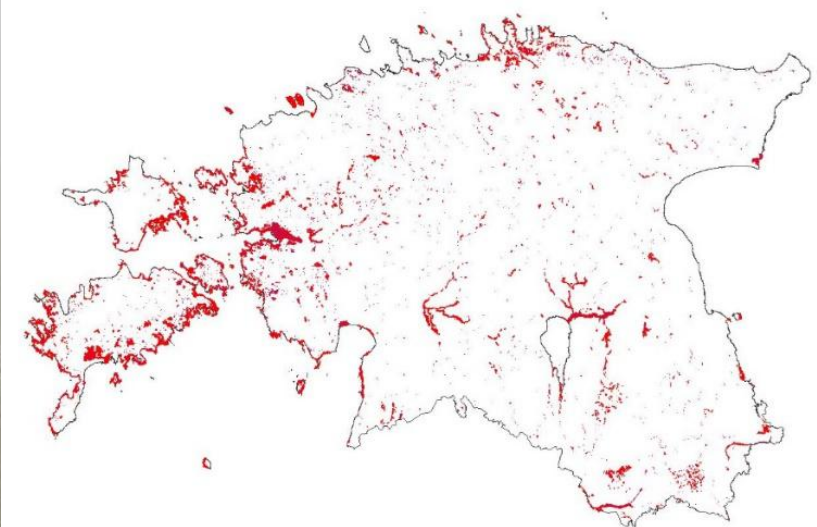


- Agricultural land – 1 000 000 ha
- Arable land – 690 000 ha
- Semi-natural grasslands in protected areas – 60 000ha
- Target area of managed grasslands in NBSAP by 2020 – 45 000 ha



CORINE Land Cover types - 2006

■ Artificial areas	■ Forested land	■ Wetlands
■ Arable land & permanent crops	■ Semi-natural vegetation	■ Water bodies
■ Pastures & mosaics	■ Open spaces/ bare soils	



Estonian grasslands ...

- hold particular and extremely high biodiversity
- belong to Estonian traditional cultural landscape
- are maintained by regular extensive management:
mowing and grazing by domestic animals
- are not fertilized, no chemicals used, no ploughing

Reasons of loss and degradation since 1950s

- abandonment and overgrowth with shrub and trees
- transforming to arable field
- fertilization and cultivation (sowing of seeds)
- changed land use, building
- afforestation





**Diversity of habitat types,
natural conditions,
management**



Practices of traditional management: (manual) mowing, grazing and collecting hay for winter fodder and bedding for livestock

Beginning of 20th century and earlier



1970s-1980s



2010s





Scrub in abandoned grassland



Restoration of grassland



Restored grassland



Managed grassland

Process of incorporation of the target policies/projects into the NBSAP, including success factors and challenges

1999 - 2001 -	Countrywide baseline inventory and GIS database of grasslands
2001-	Valuable grasslands designated as conservation areas
2001 2001 - 2006	Political decision: Subsidies for maintenance and restoration from state budget of nature conservation
2004 - 2006	Negotiations between Min of Environment, Min of Rural Affairs, Min of Finance
2007 -	Scheme of subsidies: EU funds and state budget fund of revenues from environmental fees <ul style="list-style-type: none">- subsidies for maintenance (mowing, grazing), Rural Development Plan- subsidies for buying livestock, specific equipment, harvesters, infrastructure, fences, improving accessibility- subsidies for restoration

Process of incorporation of the target policies/projects into the NBSAP, including success factors and challenges

Projects for particular cases, eg priority habitats: *Life to Alvars*

Legal regulations, requirements and administration scheme in place

Communication and public awareness

2009 - 2011

NBSAP compiled, responsible Ministry of Environment
Coordinated between Ministries and public

2012

Government adopted **Estonian NBSAP up to 2020**
National target: 45 000 ha of grasslands are mown or grazed
Quantitative targets for area under management for all grassland habitats
<https://www.cbd.int/doc/world/ee/ee-nbsap-v2-en.pdf>

2013

Action Plan for grasslands up to 2020. Implementation plan of NBSAP

Action Plan for Semi-natural Grasslands (2013):

- 1. Overview of current status**
- 2. Pressures and threats**
- 3. Targets:**
 - 3.1. stable management
 - 3.2. better quality of maintenance
 - 3.3. maintenance of typological diversity
 - 3.4. increased awareness
 - 3.5. improved database
- 4. Measures to achieve the targets**
 - 4.1. maintenance and restoration
 - 4.2. higher quality of maintenance
 - 4.3. investments
 - 4.4. sustainable production
 - 4.5. monitoring, research, inventories
- 5. Timetable and budget 2014-2020**

Success factors

Involvement of stakeholders

Training and communication

Countrywide approach: inventory, database, action plan, priorities, budget

Combining different funds, no double funding – EU funds, projects, fund of revenues of environmental charges

Research; active NGO

EU-wide agri-environmental policy

Challenges

Low awareness and interest in agricultural sector

Increased costs and workload of staff

Variety of site specific conditions, time- and resource-consuming methods

Administration is complex and needs good cooperation between different institutions

Institutional structure

Ministry of Environment

legal regulations for conservation and restoration; biodiversity targets; NBSAP; subsidies for restoration, infrastructure, livestock, equipment, machinery; communication

Environmental Board

administration of maintenance and restoration scheme, communication with farmers, preparation of contracts

Ministry of Rural Affairs

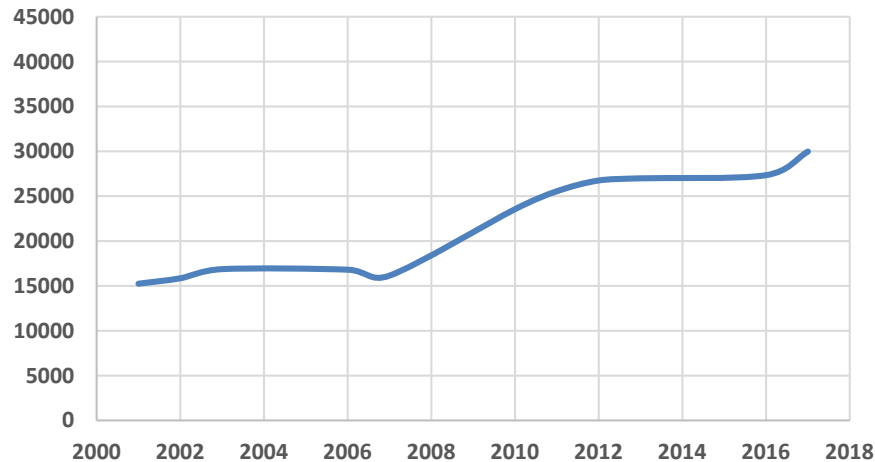
legal regulations for subsidies of grasslands maintenance; communication

Estonian Agricultural Registers and Information Board

contracts for grassland maintenance; surveillance of compliance to requirements

Implementation status, challenges and future considerations of the target policies/projects

Grasslands in management (ha)



2001-2017 increase 15 000 ha

Maintenance scheme 30 000 ha

Under restoration 7000 ha

**Implementation scheme is operational:
legal framework for subsidies,
communication, training of farmers and
staff**

**Subsidies for maintenance \approx 4.3 million
EUR yearly (5.2 million US dollars)**

**Subsidies for restoration, infrastructure,
equipment, livestock**

**Well-established institutional structure and
farmer-expert-authority networks**



Challenges and future considerations

- More progress for some habitats is needed
- Higher interest in agricultural sector is needed
- Need for local counselling service for farmers
- Producing wool, meat; ecotourism

Contributions to achievement of relevant national biodiversity targets and Aichi Biodiversity Targets

- AT1 – awareness increased
- AT3 – positive incentives and sustainable use of biodiversity
- AT4 – sustainable production and consumption
- **AT5 – rate of habitat loss reduced**
- AT7 – sustainable agricultural management
- AT11 – important sites for biodiversity conserved
- **AT12 – extinction of species avoided**
- AT14 – essential ecosystem services conserved and restored
- **AT15 – restoration of degraded ecosystems**
- AT17 – NBSAP in place
- AT19 – knowledge and science base on biodiversity constantly improved

Future steps including further policy development and review of implementation of existing policies, including lessons learned

- Review and update of NBSAP, AP and RDP by 2020
- More attention to priority habitats: alvars, wooded meadows
- Counselling service
- Increasing management quality



Lessons learned

Mainstreaming of biodiversity needs consistent effort: communication, rising of awareness, involvement of stakeholders, finances

NBSAP is a crucial tool to

- set contrywide targets and visions
- introduce the targets and visions to public
- apply for funding
- negotiate with other sectors
- achieve the targets