In Hands of Farmers and Society: Semi-Natural Grasslands in the Boreal Region
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University of Helsinki & European Forum on Nature Conservation and Pastoralism
14th Eurasian Grassland Conference 2017, Riga

Content

- The extent of the semi-natural grasslands (SNG) in the boreal region
- Drivers of change
- Farming systems of relevance
- Strategies for conservation of SNG
- Tentative directions for future research

High Nature Value farmland = mostly semi-natural pasture or meadow on land which is marginal

High Nature Value farming throughout EU-27 and its financial support under the CAP. IEEP, 2014

EIP-AGRI Focus Group on High Nature Value farming profitability
20 experts, 2014-15
Final report 2016
https://ec.europa.eu/eip/agriculture

Project HNV-Link: High Nature Value farming: Learning, Innovation and Knowledge
www.hnvlink.eu
H2020-IBB-2015-1, 2016-2019

High Nature Value farmland = mostly semi-natural pasture or meadow on land which is marginal

Sources: Eurostat and various (for SNG)
Year 2100?

Latvia  Estonia  Lithuania  Sweden  Finland

Temporary  Semi-natural  Permanent grassland

The extent of SNG in the boreal region
Drivers
Farming systems of relevance
Strategies for conservation of SNG
Tentative directions for future research

Content

1. Market

Management of SNG, most often, does not result in a marketable product
A (traditional) agri-product is not always differentiated from the products of intensive systems
Pricing system may even punish SNG-based product

Policy: current CAP

EU budget for agriculture (2009):
40 % = over €40 bln / year = ca €100 / EU citizen (EU data)

Source: Pe'er et al. 2017, Is the CAP Fit for Purpose?

Issue 1.

Large areas of SNG - not eligible for the direct and/or AE support
patches of scrub and hedges (over 2m wide) - subtracted from eligible area
100 tree/ha rule
Some flexibility allowed
E.g. ligneous (wooded) pastures in France, the UK, Spain and now in Estonia, hedges of any width in Ireland – all eligible!
In most Member States (incl. Finland, Latvia), flexibility not used.
Thousands of hectares excluded in Sweden, Finland and Estonia, incl. the EU Habitats Directive habitats.

Source: Policy assessment report VivaGrass; author: A. Ruskule

Societal changes  Markets  Policy

Depopulation of rural areas/urbanisation
CAP & Rural Development programmes
agri-environment schemes vs. support to agriculture production

POLARIZATION OF RURAL AREAS

Land abandonment
Extensification of agriculture
Intensification of agriculture

- Decreasing agri-land
- Transformation environmentally significant
- Transformation to arable
- Transformation to grassland
- Transformation to wooded
- Maintenance of grassland biodiversity
- Reducing negative impact to environment

Source: Policy assessment report VivaGrass; author: A. Ruskule
8.7.2017

Issue 2.

- Permanent grassland (incl. SNG) - must be retained under “greening” (= new rule)
- = land used to grow grasses or other herbaceous forage naturally (self-seeded) or through cultivation (sown) and that has not been included in the crop rotation of the holding for five years or more. It may include other species such as shrubs and/or trees which can be grazed provided that the grasses and other herbaceous forage remain predominant.

![Graph showing percentage of different grassland types in various countries](image)

Source: Eurostat (cultivated and permanent) and various (for SNG)

Issue 3.

- Agri-environment (AE) funding is inadequate and declined overall.

- **Example of Finland**
  - Estimates of real costs up to €1,000/ha
  - Before 2014: detailed budget (eg of every meter of fence) but allowed max €450/ha/yr
  - Now: Flat rate of €450/ha/yr and €600/ha/yr for nationally valuable sites
  - Now: AE funding down 20% -> budget deficit of 40% -> new contracts for managing SNG only in 3 first years

Has the CAP become any greener with the recent greening (2013 -)?

**Offered nothing new for SNG!**


2. Policy: past

- **World**
- Swedish Farm Animals Get a Bill of Rights

Swedish cattle have been given grazing rights under the new law.

3. Wider societal changes and culture

- Depopulation of rural areas
- Dietary choices (e.g., chefs would choose "Argentinian beef" over nationally produced)
- Etc. etc.
3. Wider societal changes and culture

**Level of awareness**
- **Sweden (Kumm, 2017) (n=1000):**
  - For ca 60% SN pastures are important, esp. if with old trees
  - 40% of meat consumers willing to pay 20% premium
  - SN pastures raise property prices
- **BUT younger respondents - least appreciation of SN pastures - risk of a shifting baseline**

Finland
- Interviews with producers of meat from SNG (n=10) and consumers (3 focus groups)
- Customers value ‘an overall wellbeing of animals’ = just ‘seeing the animals out in the pasture’.
- Producers: explaining details (natural vs cultivated pasture) is too challenging; consumer are not ready to say “oh wow, they are grazing natural pastures!!”
- --> labelling (“natural pasture meat”) difficult nationally

M. Kaljonen & I. Viholainen, LUKE, in work

Place in education

*Extinction vortex*

**How much do you use the concept of High Nature Value farming/farmland in your teaching?**

- I do not use (26%)
- I refer to it in a single course (39%)
- I work with it in a course (11%)
- I use it in several courses (14%)
- Other (3%)

Source: HNV-Link project, unpubl.

300+ HE institutions (agricultural sciences & biology) and educators across Europe

“Extinction vortex”

- Environmental variation
- Catastrophic events
- Lower support in policy, R&D
- Habitat destruction
- Environmental degradation
- Habitat fragmentation
- Overharvesting
- Effects of exotic species

Finland

**Systematic targeting of management actions as a tool to enhance conservation of traditional rural biotopes**

**Highlights**
- The conservation of management-dependent traditional rural biotopes is failing.
- The total cover under moving or grazing management continues to decline in Finland.
- Management actions are not targeted to conservationally most important sites.
Endangered habitat type, Finland

Number of biotope types by IUCN classes

Baltic Sea, marine
Baltic Sea, coastal
Inland waters and coasts
Bogs
Forests
Rocky biotopes
Traditional (agric.) biotopes
Tundra

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HNV farming systems

Whole farm HNV
Partial HNV
Remnant HNV

Regional patches: e.g. islands
(Non-organic) livestock farms, esp. suckler cows or sheep

Small patches of SNG habitats
SNH mown for payments only
Remnants of landscape features

Source: Keenleyside et al. 2014

Partial HNV system in Finland

HNV farming systems

Whole farm HNV
Partial HNV
Remnant HNV

Boreal region
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Preservation strategy: maintain traditional practices by making them financially attractive (e.g., agri-environment payments). Transformation strategy: though ecosystems from traditional agriculture are worth maintaining in their basic structure and function, changes in the social system are inevitable and often desirable.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Preservation</th>
<th>Transformation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>practices of the past, results are assumed to follow ecosystem characteristics; modification of practices is acceptable</td>
<td></td>
</tr>
<tr>
<td>Public support</td>
<td>prescribed management</td>
<td>self-organisation, support of pilots, risk buffering, payment for public goods, results-based payments</td>
</tr>
<tr>
<td>Farmer role</td>
<td>individual farmers</td>
<td>communities, NGOs</td>
</tr>
<tr>
<td>Markets</td>
<td>outside</td>
<td>Integration</td>
</tr>
<tr>
<td>Innovation</td>
<td>redundant</td>
<td>crucial</td>
</tr>
<tr>
<td>Research</td>
<td>biology-centered</td>
<td>interdisciplinary</td>
</tr>
</tbody>
</table>

Network of 10 Learning Areas

In all Learning Areas - semi-natural pastures and extensive livestock

Example 1: Sweden
- Europe’s first mobile butchery for fully grown cattle - Hälsingestintan
- “Ethical” meat, also from the Learning Area, with a stress on HNV pasture production

https://www.finedininglovers.com/stories/ethical-meat-halsingestintan/
Example 2: Sweden

- Community Supported Sheep - a new approach of the Svanängen farm to market meat from HNV-land
- Customers buy a lamb before the season: support HNV-land restoration and give the farmers security.

Example 3: Greece, Thessalia

- Participatory Guarantee System: certification of local traditional products of extensive grazing in HNV landscapes; fair redistribution of the added value to farmers and small cheese makers; prevention of conflicts between farmers and forestry; support for indigenous breeds.
- GPS, drones, various cooperation and advisory modes, etc.

Review of literature & compilation from the HNV-Link network

Can innovation secure a future for HNV farming?

- Successful innovations working in some places
- Expanding their usage - a major challenge
- Role of a leader (incl. NGO, group of locals, expert)
- Institutional and regulatory barriers: institutional and regulatory innovation needed to enable and facilitate all other innovations
- EIP Operational Groups and pilot projects: opportunity for kick-starting innovative processes at local level

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Focus Group ideas for further research on HNV farming

- Better understanding of HNV farming systems: socio-economic characteristics, economic performance, motivation, social dynamic, trends
- Developing technical and management solutions

Some future directions

- Improve inventory of SNG and HNV farming systems
- Remote sensing technologies for easy classification (e.g., SNG vs. Permanent Grassland), use of drones for monitoring
- Novel solutions for targeted mechanical plant control, incl. toxic and invasive species
- Use of biomass from SNG: eg energy, bedding, “spider refuges”
- Trade-offs between quantity and quality in products from extensive systems
- Regional “meadow meat” labelling
- Ecosystem services -> “product”
- Multi-purpose land-use planning
THANK YOU!