23rd General Meeting
European Grassland Federation
2010 / Kiel

Extensive grasslands beyond the year 2013 – present situation and options for the future?

Rainer Luick + Stefan Schrode
University of Rottenburg / Germany
Background of this paper is a research project with the objective of a status analysis of extensive grasslands in the South-West of Germany.

- Pulling together existing data (e.g. statistics, mappings)
- Interviews with farmers \( (n=70) \) in areas with distribution / concentration of hnv grasslands
Remarks on the biodiversity issue
Legal obligations:

- Convention on Biodiversity from Rio de Janeiro (1992)
- Gothenburg aims / obligations of the EU-member states
- IUCN Countdown campagne 2010 “stop the loss”
- EU Habitats & Birds directives / NATURA 2000 approach
- National plans of the EU-member states to challenge the biodiversity decline

HNV farmland distribution based on the inventory of semi-natural grassland vegetation in the EU
Lowland hay-meadows (6510)

Mountain hay-meadows (6520)

Dry heathland (4030)

Formations with Juniperus communis on calcareous heaths or grassland (5130)

Karstic calcareous grasslands (6110)

Xeric sand calcareous grasslands (6120)

Formations on calcareous substrates (6210)

Formation with Nardus stricta on silicious substrates in mountain areas (6230)

Molinia meadows on chalk or clay (6410)

Alkaline fens (7330)
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*Molinia* meadows on chalk or clay (6410)

Alkaline fens (7330)

Very crude differentiation of extensive grasslands

Botanists/Phytogeographers distinguish only in Germany ca. 80 different types

Central European extensive grasslands are a major contribution of Europe to the global biodiversity heritage
Species-rich Lowland Hay Meadows (=Arrhenatherion communities),
N2000-Code: 6510
Species-rich Lowland Hay Meadows (=Arrhenatherion communities), N2000-Code: 6510
Species-rich Mountain Hay Meadows (e.g. Geranio-Trisetetum), N2000-Code: 6520
Species-rich Mountain Hay Meadows (e.g. Geranio-Trisetetum), N2000-Code: 6520
Development of grasslands with hnv properties for the State of Baden-Württemberg according to expert opinions and monitoring programmes

<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>1980</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>total grassland</td>
<td>884.000</td>
<td>650.000</td>
<td>545.000</td>
</tr>
<tr>
<td>hnv %</td>
<td>90 %</td>
<td>20 %</td>
<td>10 %</td>
</tr>
<tr>
<td>Type &amp; Natura 2000-Code</td>
<td>Dimension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowland hay-meadows (6510)</td>
<td><strong>50.000 ha are still considered to be grasslands of hnv-value:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mountain hay-meadows (6520)</td>
<td>- Ca. 30.000 ha are lowland hay-meadows,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry heathland (4030)</td>
<td>- Ca. 10.000 ha are mountain-hay meadows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formations with <em>Juniperus communis</em> on calcareous heaths or grassland (5130)</td>
<td>- Rest is mainly calcareous heathland with <em>Juniperus</em>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karstic calcareous grasslands (6110)</td>
<td></td>
<td></td>
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<td><em>Molinia</em> meadows on chalk or clay (6410)</td>
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</tr>
<tr>
<td>Alkaline fens (7330)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Legal land-use changes for bio-energy production (maize)

Illegal turnover of riverine grasslands into crop fields for bio-energy production

Decline due to:

Abandonment (in mountainous as well as in lowland regions)

Afforestation (mainly in mountainous regions)
Most important factor:
Most important factor:

Qualitative losses due to the general intensification of grassland management practises
<table>
<thead>
<tr>
<th>Type &amp; Natura 2000-Code</th>
<th>Land-use systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowland hay-meadows (6510)</td>
<td>No surprise but worth to mention it: all grasslands have evolved along side with livestock keeping systems and actually depend on them</td>
</tr>
<tr>
<td>Mountain hay meadows (6520)</td>
<td></td>
</tr>
<tr>
<td>Dry heathland (4030)</td>
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</table>
But
The survey gives evidence that most hnv grasslands are not linked anymore to viable (livestock keeping) farming practises.
Remarks on the socio-economic situation
Decline of dairy cows in the State of BW from 1960 - 2009

Decline:
897,791 → 378,600
- 58 %
## Decline of dairy farms in the survey areas

<table>
<thead>
<tr>
<th>District</th>
<th>1979</th>
<th>1999</th>
<th>2009</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enz-District</td>
<td>681</td>
<td>133</td>
<td>85</td>
<td>- 88</td>
</tr>
<tr>
<td>Hohenlohe-District</td>
<td>2.096</td>
<td>520</td>
<td>265</td>
<td>- 87</td>
</tr>
<tr>
<td>Ravensburg-District</td>
<td>5.150</td>
<td>2.669</td>
<td>1.818</td>
<td>- 65</td>
</tr>
<tr>
<td>Reutlingen-District</td>
<td>2.127</td>
<td>585</td>
<td>304</td>
<td>- 86</td>
</tr>
<tr>
<td>Waldshut-District</td>
<td>2.857</td>
<td>814</td>
<td>434</td>
<td>- 85</td>
</tr>
<tr>
<td>District</td>
<td>1979</td>
<td>1999</td>
<td>2007</td>
<td>%</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>Enz-District</td>
<td>5.531</td>
<td>3.333</td>
<td>2.868</td>
<td>-48</td>
</tr>
<tr>
<td>Hohenlohe-District</td>
<td>17.465</td>
<td>9.656</td>
<td>7.498</td>
<td>-47</td>
</tr>
<tr>
<td>Ravensburg-District</td>
<td>100.202</td>
<td>80.690</td>
<td>70.319</td>
<td>-30</td>
</tr>
<tr>
<td>Reutlingen-District</td>
<td>16.542</td>
<td>11.039</td>
<td>8.690</td>
<td>-47</td>
</tr>
<tr>
<td>Waldshut-District</td>
<td>18.987</td>
<td>12.348</td>
<td>10.184</td>
<td>-46</td>
</tr>
</tbody>
</table>
Milk quota trading in kg / hectare aa

- < - 120
- -120 bis < -60
- -60 bis < -30
- -30 bis < 0
- 0 bis < + 30
- + 30 bis < + 60
- > + 60

LASSEN vTI 2010
# Results of milk quota trading in Mio. kg according to the German stock region West since the introduction in 2007

1) responsible for Lower Saxony, Schleswig-Holstein, Hamburg und Bremen, 2) responsible for Rhineland Palatinate and Saarland.

<table>
<thead>
<tr>
<th>Region</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württemberg</td>
<td>- 86.773</td>
</tr>
<tr>
<td>Bavaria</td>
<td>- 36.202</td>
</tr>
<tr>
<td>Lower Saxony 1)</td>
<td>+ 160.911</td>
</tr>
<tr>
<td>Nordrhnhe-Westfalia</td>
<td>+ 76.127</td>
</tr>
<tr>
<td>Hesse</td>
<td>- 77.208</td>
</tr>
<tr>
<td>Rhineland-Palatinate 2)</td>
<td>- 24.278</td>
</tr>
</tbody>
</table>
Remarks on the policy issue / future of extensive grasslands
The existence of all hnv grassland types / extensive management practices depend entirely on pillar 1 and pillar 2 subsidies.

Pillar 2 programmes like agri-environment schemes (MEKA III) and tailored conservation programmes for areas of conservation interests (e.g. NATURA 2000 areas) make up 60 % and more of all farming payments in the survey areas.

For mountain farmers and sheep keepers 80 to 100 % of the net income derives from pillar 1 and pillar 2 transfers.
Take-home message
We need new land use strategies to not further increase the demand for subsidies or even to minimize the financial needs.

There is not a single strategy. Proven best-practise examples or / and ideas which still need practical testing are e.g.

- large scale extensive grazing systems for beef production in various forms,
- adding-value concepts for dairy products (as elements of regional economic value chains)
- hay-pellets for combustion purposes?
Grasslands in Europe of high nature value

Book to recommend
Acknowledgements

The research project was cordially supported by the Nature Trust at the Ministry of Environment of the State of Baden-Württemberg
Thank you for your interest!