Best practices for sustainable use of common grasslands in the Western Balkans and Europe
Sofia, 15 April 2013.

USE OF PASTURE RESOURCES IN MONTENEGRO

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Presentation outline

A. Introduction
B. Main features of agriculture with focus on the livestock sector
C. Legal and policy framework of the livestock sector
D. Use of mountain pasture
A. Introduction
MOTIVATION

- How important is common grazing for agriculture?
- Are the pastures classified as agricultural land?
- Are the pastures eligible for direct or other types of support?
- What are the legal frameworks for common pastures?
- Who are the bodies responsible for grazings at the different levels of Government?
- Overgrazing or abandonment of the pastures?
- The future of common grazings
Montenegro:

- Area – 13,812 km²,
- Total population – 625,000
- Pop. density – 45/km²
- Capital – Podgorica
- Divided into 21 municipalities
- Coastline: 293.5 km
B. Main features of agriculture, focusing on the livestock sector
Main characteristics

- **Land resources:**
  - 515,740 ha of total agricultural land, or **0.82 ha/person**
  - 190,000 ha of arable land, or **0.30 ha/person**

- **Economic importance** – high share in GDP: 8.3%,

- Agriculture is **labour intensive (about 25% of total employment)**, plays a role of a social buffer – part of income for close to 50,000 rural households,

- **Structural characteristics:** small family farms prevail, average size ≈ 5 ha, low productivity

- **Low level of chemical use** – good opportunity for environmental friendly ways of production
MONTENEGRIN AGRICULTURE IS VERY DIVERSE

Olives & citrus at the coast → Vegetables & vineyards in the centre → Cattle, sheep & potatoes, in the north
STRUCTURE OF AGRICULTURAL LAND, 2011

<table>
<thead>
<tr>
<th>Total Agricultural land - 515,740 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arable land (fields and gardens)</td>
</tr>
<tr>
<td>Grassland (meadows)</td>
</tr>
<tr>
<td>Permanent crops</td>
</tr>
<tr>
<td>Permanent pastures</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

## Total and utilised agricultural land with ownership structure

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total available agricultural land</strong></td>
<td></td>
</tr>
<tr>
<td>Number of holdings</td>
<td>48,870</td>
</tr>
<tr>
<td>Total available land, ha</td>
<td>309,240.7</td>
</tr>
<tr>
<td>Average land per holding, ha</td>
<td>6.3</td>
</tr>
<tr>
<td><strong>Used agricultural land</strong></td>
<td></td>
</tr>
<tr>
<td>Number of holdings</td>
<td>48,277</td>
</tr>
<tr>
<td>Total utilised agricultural land, ha</td>
<td>221,297.6</td>
</tr>
<tr>
<td>Average utilised land per holding, ha</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Ownership structure</strong></td>
<td></td>
</tr>
<tr>
<td>Producer’s own land, ha</td>
<td>176,251.3 (57%)</td>
</tr>
<tr>
<td>Land rented and collective land (katun, commune), ha</td>
<td>132,989.4 (43%)</td>
</tr>
<tr>
<td>Collective land (katuns, commune), ha</td>
<td><strong>123,289.3</strong></td>
</tr>
<tr>
<td></td>
<td>(40% of used or 24% of total land)</td>
</tr>
</tbody>
</table>

Source: MONSTAT – Agricultural Census 2010
Main characteristics

- Traditionally, livestock plays a major role in ME agriculture (more than 50% of total output),
- Rearing of ruminants (cattle, sheep and goats) prevails due to the natural resources,
- Pig and poultry production are not well developed primarily due to the lack of production of cereals,
- There are positive structural changes, size of farm/flock is increasing,
- Domestic production of meat and milk are far below the consumption (including tourism): self sufficiency for meat is about 36%, for milk is about 80%
## THE LIVESTOCK SECTOR

### Size of population by species, ‘000

<table>
<thead>
<tr>
<th>The species</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>117,0</td>
<td>118,0</td>
<td>115,0</td>
<td>106,5</td>
<td>101,0</td>
<td>96,0</td>
<td>87,2</td>
</tr>
<tr>
<td>Cows and heifers in calf</td>
<td>85,5</td>
<td>83,0</td>
<td>80,0</td>
<td>73,4</td>
<td>70,4</td>
<td>67,2</td>
<td>62,2</td>
</tr>
<tr>
<td>Pigs</td>
<td>11,0</td>
<td>13,0</td>
<td>10,0</td>
<td>10,0</td>
<td>12,0</td>
<td>11,0</td>
<td>21,4</td>
</tr>
<tr>
<td>of which breeding sows</td>
<td>1,6</td>
<td>1,9</td>
<td>3,2</td>
<td>1,7</td>
<td>2,0</td>
<td>2,0</td>
<td>2,8</td>
</tr>
<tr>
<td>Sheep</td>
<td>255,0</td>
<td>249,0</td>
<td>222,0</td>
<td>209,0</td>
<td>199,8</td>
<td>198,2</td>
<td>208,8</td>
</tr>
<tr>
<td>of which breeding ewes</td>
<td>191,0</td>
<td>198,0</td>
<td>170,0</td>
<td>161,0</td>
<td>159,9</td>
<td>158,5</td>
<td>172,9</td>
</tr>
<tr>
<td>Goats</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35,0</td>
</tr>
<tr>
<td>Horses</td>
<td>7,1</td>
<td>6,2</td>
<td>5,4</td>
<td>5,1</td>
<td>5,0</td>
<td>4,8</td>
<td>4,0</td>
</tr>
<tr>
<td>Poultry</td>
<td>462,1</td>
<td>448,5</td>
<td>505,4</td>
<td>432,0</td>
<td>416,7</td>
<td>506,5</td>
<td>470,0</td>
</tr>
<tr>
<td>Beehives</td>
<td>42,6</td>
<td>41,6</td>
<td>36,6</td>
<td>29,0</td>
<td>18,1</td>
<td>21,7</td>
<td>42,2</td>
</tr>
</tbody>
</table>

Main features

- Small family farms, dual purpose breeds prevail, but with trend towards dairy breeds;
- Farm size – average of 2.85 milking cows;
- 4565 farms with more than 3 cows (subsidies 2011), total of 30718 head (6.7 on average);
- 52% of breeding animals are still on small farms with 1; 2 or 3 cows;
- 41% of cows Artificially Inseminated; official milk control on 3200 cows (5% of total);
- Low production: Milk yield: total population ~2800 kg (estimate), cows in official milk recording (2011) - 5070 kg, 3,75% Fat and 3,19% Protein
Main features

- Semi-extensive or extensive farming system prevail – some milking ewes, but decreasing;
- Sheep production is located mostly in remote rural areas that suffer from population abandonment;
- 2170 flocks with more than 20 sheep (subsidies in 2011), total of 138408 head (average of 63.4)
- Lamb is by far the main product of sheep sector, 60-65% in total value, milk makes up the rest (30-35%), wool has no economic value

Pivska pramenka
Sjenicka pramenka
The main sheep breeds

Rare breeds (Bardoka, Ljaba, Zuja)
GOATS SECTOR IN MONTENEGRO

Main features

- Extensive or semi-extensive farming prevail – mainly for milk production;
- Goat production located mostly on the karst (area of Niksic, Cetinje, Danilovgrad, part of Podgorica and Coastal regions);
- 402 flocks with more than 10 goats (subsidies 2012), with total of 18538 breeding animals (46 head in average);
- Half of the population is kept as single animals, with much higher milk yield and number of kids born per doe;
- Average milk yield is 140 kg per goat annually;
- Autochthonous Balkan breed is dominant, especially in the bigger flocks, in smaller flocks there are crosses with the Alpine and Saanen breed.
North-East is the highest density area for cattle distribution in Montenegro.
SHEEP AND GOATS DISTRIBUTION IN MONTENEGRO

Legend:
One symbol represents 50000 animals
C. Legal and policy frameworks for the livestock sector
LEGAL FRAMEWORK FOR THE LIVESTOCK SECTOR

- Law on Agriculture and Rural Development (Official Gazette of Montenegro 56/09)
- **Law on Livestock Farming** (Official Gazette of Montenegro 72/10)
- Veterinary Law (Official Gazette of Montenegro 30/12)
- Law on Food Safety (Official Gazette of Montenegro 14/07)
- Law on Animal Identification and Registration (Official Gazette of the Republic of Montenegro 48/07, 73/10)
- Secondary legislation (sublaws, rulebooks, decrees)

**Note:** There are no specific laws or legal acts that regulate common pasture in ME
INSTITUTIONAL SUPPORT TO THE LIVESTOCK SECTOR

- Ministry of Agriculture and Rural Development
- Veterinary service
  - Veterinary Directorate (under the responsibility of the Ministry)
  - Diagnostic veterinary Laboratory (public body)
  - Field veterinary service (privately organised)
- Biotechnical Faculty - University of Montenegro
  - Department for Livestock Science (high education and research)
  - The Livestock Selection Service (breeding programmes, performance recording)
  - The Dairy Laboratory (analyses of milk for payment purposes)
  - Livestock Department (education and research)
- Other institutions and organisations
- Advisory service at the municipal level
## Direct payments in the Livestock sector, 2012

<table>
<thead>
<tr>
<th>Kind of support</th>
<th>No. of producers</th>
<th>Total No. of animals</th>
<th>Animals eligible for subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1.1.1</td>
<td>Supporting livestock production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsidies for cows &amp; heifers (herds of 3-50), €70/hd</td>
<td>4565</td>
<td>30718</td>
<td>17023</td>
</tr>
<tr>
<td>Subsidies for breeding ewes (flocks of 20 -300), €9/hd</td>
<td>2170</td>
<td>138408</td>
<td>94898</td>
</tr>
<tr>
<td>Subsidies for breeding she-goats (flocks of 10-300), €9/hd</td>
<td>402</td>
<td>18538</td>
<td>14458</td>
</tr>
</tbody>
</table>

**Implementation: Livestock Selection Service**

Eligible animals must be properly identified and registered animals and kept on farm for a minimum of 6 months.
D. Use of mountain pastures
## RURAL DEVELOPMENT POLICY, 2012
### Measure 2.2.4 Sustainable use of mountain pastures
(claimants must move seasonally from the permanent settlements to the katuns)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>No. of claimants</th>
<th>Adult cattle</th>
<th>Young Cattle</th>
<th>Sheep</th>
<th>Goats</th>
<th>Horses</th>
<th>Livestock units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar</td>
<td>5</td>
<td>61</td>
<td>4</td>
<td>35</td>
<td>71</td>
<td>5</td>
<td>79.5</td>
</tr>
<tr>
<td>Ulcinj</td>
<td>1</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12.0</td>
</tr>
<tr>
<td>Kotor</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>100</td>
<td>2</td>
<td>18.3</td>
</tr>
<tr>
<td>Budva</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6.0</td>
</tr>
<tr>
<td>Herceg Novi</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>236</td>
<td>85</td>
<td>1</td>
<td>53.0</td>
</tr>
<tr>
<td>Podgorica</td>
<td>120</td>
<td>658</td>
<td>70</td>
<td>7962</td>
<td>286</td>
<td>110</td>
<td>1853.9</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>53</td>
<td>259</td>
<td>25</td>
<td>4307</td>
<td>355</td>
<td>46</td>
<td>916.9</td>
</tr>
<tr>
<td>Cetinje</td>
<td>8</td>
<td>53</td>
<td>2</td>
<td>522</td>
<td>367</td>
<td>9</td>
<td>186.7</td>
</tr>
<tr>
<td>Nikšić</td>
<td>220</td>
<td>1371</td>
<td>287</td>
<td>8248</td>
<td>930</td>
<td>100</td>
<td>2738.5</td>
</tr>
<tr>
<td>Plužine</td>
<td>122</td>
<td>793</td>
<td>160</td>
<td>6850</td>
<td>50</td>
<td>110</td>
<td>1844.3</td>
</tr>
<tr>
<td>Šavnik</td>
<td>93</td>
<td>694</td>
<td>24</td>
<td>5701</td>
<td>125</td>
<td>94</td>
<td>1525.1</td>
</tr>
</tbody>
</table>
### RURAL DEVELOPMENT POLICY, 2012

**Measure 2.2.4 Sustainable use of mountain pastures**

<table>
<thead>
<tr>
<th>Municipality</th>
<th>No. of claimants</th>
<th>Adult cattle</th>
<th>Young Cattle</th>
<th>Sheep</th>
<th>Goats</th>
<th>Horses</th>
<th>Livestock units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane</td>
<td>301</td>
<td>1959</td>
<td>205</td>
<td>13052</td>
<td>452</td>
<td>302</td>
<td>4040.2</td>
</tr>
<tr>
<td>Plav</td>
<td>195</td>
<td>921</td>
<td>95</td>
<td>7041</td>
<td>341</td>
<td>188</td>
<td>2070.7</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>87</td>
<td>402</td>
<td>47</td>
<td>3354</td>
<td>66</td>
<td>104</td>
<td>955.4</td>
</tr>
<tr>
<td>Rožaje</td>
<td>135</td>
<td>1115</td>
<td>57</td>
<td>3877</td>
<td>140</td>
<td>29</td>
<td>1671.1</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>216</td>
<td>1716</td>
<td>125</td>
<td>10880</td>
<td>249</td>
<td>232</td>
<td>3395.4</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>151</td>
<td>896</td>
<td>90</td>
<td>3551</td>
<td>138</td>
<td>153</td>
<td>1551.7</td>
</tr>
<tr>
<td>Kolašin</td>
<td>147</td>
<td>963</td>
<td>81</td>
<td>6895</td>
<td>513</td>
<td>151</td>
<td>2067.7</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>22</td>
<td>156</td>
<td>69</td>
<td>984</td>
<td>0</td>
<td>12</td>
<td>325.5</td>
</tr>
<tr>
<td>Žabljak</td>
<td>56</td>
<td>308</td>
<td>48</td>
<td>3033</td>
<td>16</td>
<td>28</td>
<td>745.7</td>
</tr>
<tr>
<td><strong>Total MNE</strong></td>
<td><strong>1938</strong></td>
<td><strong>12356</strong></td>
<td><strong>1389</strong></td>
<td><strong>86578</strong></td>
<td><strong>4284</strong></td>
<td><strong>1677</strong></td>
<td><strong>26057.5</strong></td>
</tr>
</tbody>
</table>

**Implementation:** Livestock Selection Service, payment is €10/LU

**Criteria:** animals must be ear tagged and registered, minimum 5 LU, staying at the katuns a minimum of 2 months, and moving with a permit issued by the Vet. Directorate
Coastal region
Only 12 claimants
168.7 LU (0.6%)

Pi, Pl, Sa
435 claimants
6107.9 LU (23%)

Plj, Za
78 claimants
1071.2 LU (4%)

BP, MO, KO
514 claimants
7014.8 LU (27%)

BE, And, PL, RO
718 claimants
8737.4 LU (34%)

PG, DG, CE
181 claimants
2957.5 LU (11%)
Livestock density is higher than in the rest of the Country. Overgrazing can occasionally happen, depending on the precipitation.

Abandonment is an ongoing process - in some parts it is very intensive.
COMMON GRAZING IN MONTENEGRO

- A very long tradition!
- In the past, very strict **unwritten rules** were applied, which are still respected by farmers in some areas.
- These unwritten rules mainly concerned the dates for the **start of grazing** which, depending on the altitude and vegetation, varies between May 1 and June 15.
- Duration of stay in katuns is **3-4 months**, so return to lower ground is in September, though sometimes farmers stay until the end of October.
- There are farmers who move to the mountains **in two steps**: they leave their village earlier, in April, then stay in the foothills until the vegetation in the mountains has grown sufficiently, and return back to the villages in the same two-step way.
Mountain pasture with katuns in Durmitor region
**Sinjajevina Mountain:**
the largest pasture area in Montenegro – 44,000 ha, used by the farmers from five municipalities: Danilovgrad, Kolasin, Mojkovac, Savnik, Zabljak
**Bjelasica Mountain:**

**Left:** traditional and typical settlement called a katun, with a group of cottages where families used to stay during summer – mostly over 4 months

**Right:** watering place for livestock at pasture
THE FUTURE OF COMMON GRAZING

• Strategic orientation is supportive towards multiple use of the mountains

• State support is getting better
  • Direct state support for farmers
  • Improving infrastructure, roads and electricity supply
  • Promotion of the traditional dairy products,

• There is a positive attitude amongst farmers towards using pasture, however the lack of a workforce is still critical in many areas

• Combination with tourism is quite new in certain regions and seems very attractive

• Both processes (abandonment in some areas and revitalization in the others) will continue
Thank you for the attention!