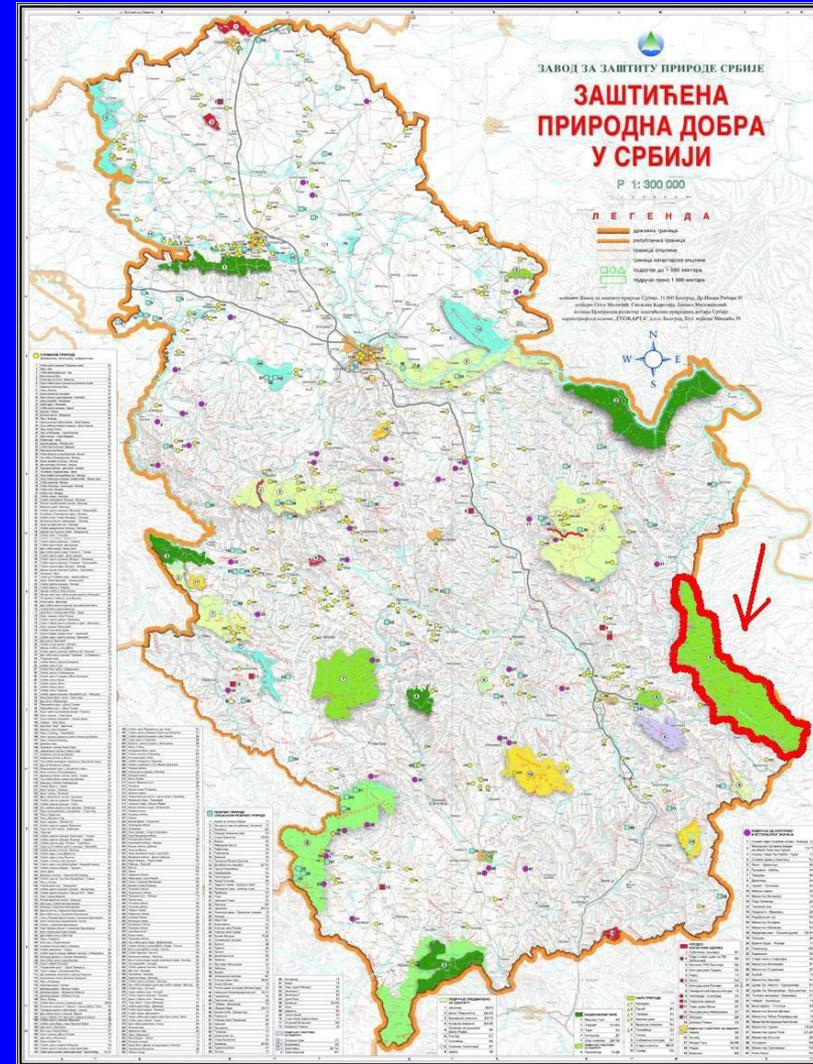


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The Republic of Serbia is situated in South-East Europe, on the Balkan Peninsula. It covers a territory of 88.361 sq. km and true the last census has 7.186.862 people.



- 1.44 million people working on agricultural holdings**
- 631.552 agriculture households**
- 3.437.423 ha of agriculture land**

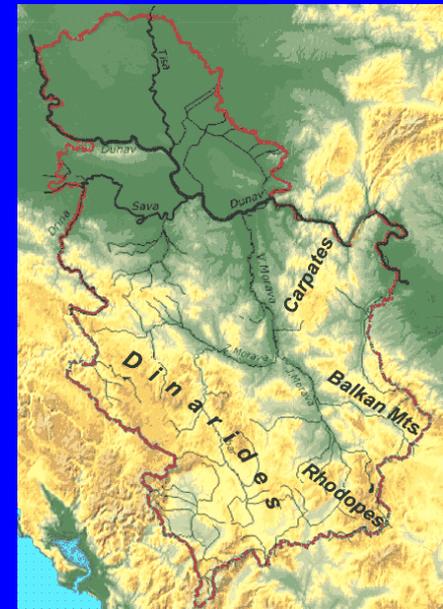
**out of which 73.1 % are arable land and gardens**  
**20.7 % are meadows and pastures**  
**4.8 % are orchards**  
**0.6 % are vineyards**  
**0.7 % are crofts**  
**0.1 % other crops**



## **THE STATE OF PRODUCTION SYSTEM**

**Two types of animal production systems:**

- 1. Highly specialized high input production system**
- 2. Extensive low input production system**



## TIPICAL PRODUCTS FROM LOCALLY ADAPTED BREEDS

Milk products are divided in three groups: cheeses, kaymak and low-fat cheeses.

1. Krivovirski kachkaval
2. Svrljig cheese
3. Pirot kachkaval
4. Buffalo butter
5. Donkey milk and cheese
6. Soap, liqueur and face cream from Donkey milk



## TIPICAL PRODUCTS FROM LOCALLY ADAPTED BREEDS

### Meat and other products:

1. Podolian ham
2. Mangalitsa sausage
3. Mangalitsa ham
4. Mangalitsa fat
5. Mangalitsa bacon
6. Donkey sausage
7. Pirot`s rug
8. Sirogoyno hand made wool products



**SOME PRICES:**

1. Pirot kachkaval	6.5 Euro/kg
2. Donkey milk	40 Euro/kg
3. Donkey cheese	1000 Euro/kg
4. Donkey soap	5 Euro/piece
5. Donkey liqueur	10 Euro/1 dl
6. Donkey face cream	25 Euro/piece
7. Mangalitsa sausage	20 Euro/kg
8. Mangalitsa ham	100 Eura/piece
9. Mangalitsa fat	5 Euro/kg
10. Mangalitsa bacon	12 Euro/kg
11. Pirot rug	150-250 Euro/sqm

## **MONITORING OF Animal Genetic Resources**

- 1. Ministry of Agriculture, Forestry and Water Management**
- 2. Livestock Institute, Belgrade and Agriculture Faculty of Novi Sad / Breeding programme and Herdbook**
- 3. Veterinary service / Ear marks**
- 4. Center for Reproduction and A.I. / Gene Bank**
- 5. Breeding Association of the old breeds of Serbia**

## **The CURENT STATUS**

	Locally Adapted Breeds		Exotic Breeds	Total
		Endangered		
<b>Cattle</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>10</b>
<b>Buffalo</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Horse</b>	<b>2</b>	<b>2</b>	<b>12</b>	<b>14</b>
<b>Donkey</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Pig</b>	<b>3</b>	<b>3</b>	<b>10</b>	<b>13</b>
<b>Sheep</b>	<b>11</b>	<b>8</b>	<b>7</b>	<b>18</b>
<b>Goat</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>4</b>
<b>Chicken</b>	<b>4</b>	<b>4</b>	<b>17</b>	<b>21</b>

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**The population trend of locally adapted breeds (2000-2017)  
\*registered animals**

	<b>2017</b>	<b>2015</b>	<b>2010</b>	<b>2005</b>	<b>2000</b>
<b>Podolian cattle</b>	<b>286</b>	<b>240</b>	<b>350</b>	<b>137</b>	<b>110</b>
<b>Busha cattle</b>	<b>916</b>	<b>669</b>	<b>550</b>	<b>65</b>	<b>/</b>
<b>Domestic buffalo</b>	<b>729</b>	<b>423</b>	<b>250</b>	<b>139</b>	<b>/</b>
<b>Domestic-mountain pony</b>	<b>416</b>	<b>110</b>	<b>80</b>	<b>17</b>	<b>9</b>
<b>Nonius</b>	<b>83</b>	<b>74</b>	<b>85</b>	<b>34</b>	<b>17</b>
<b>Balkan donkey</b>	<b>436</b>	<b>281</b>	<b>250</b>	<b>22</b>	<b>/</b>
<b>Mangalitsa pig</b>	<b>1964</b>	<b>780</b>	<b>400</b>	<b>262</b>	<b>124</b>
<b>Morava pig</b>	<b>417</b>	<b>103</b>	<b>100</b>	<b>33</b>	<b>/</b>
<b>Resava pig</b>	<b>64</b>	<b>16</b>	<b>40</b>	<b>8</b>	<b>/</b>

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**The population trend of locally adapted breeds (2000-2017)  
\*registered animals**

	<b>2017</b>	<b>2015</b>	<b>2010</b>	<b>2005</b>	<b>2000</b>
<b>Lipa sheep</b>	<b>992</b>	<b>687</b>	<b>300</b>	<b>110</b>	<b>/</b>
<b>Krivi vir sheep</b>	<b>790</b>	<b>532</b>	<b>350</b>	<b>273</b>	<b>/</b>
<b>Bardoka sheep</b>	<b>143</b>	<b>81</b>	<b>60</b>	<b>31</b>	<b>/</b>
<b>Vlashko-vitoroga sheep</b>	<b>834</b>	<b>468</b>	<b>350</b>	<b>70</b>	<b>/</b>
<b>Pirot sheep</b>	<b>177</b>	<b>101</b>	<b>50</b>	<b>20</b>	<b>/</b>
<b>Karakachan sheep</b>	<b>193</b>	<b>165</b>	<b>130</b>	<b>40</b>	<b>/</b>
<b>Čokan Tsigai sheep</b>	<b>381</b>	<b>650</b>	<b>550</b>	<b>288</b>	<b>100</b>
<b>Balkan goat</b>	<b>528</b>	<b>521</b>	<b>250</b>	<b>203</b>	<b>242</b>
<b>Svrljig hen</b>	<b>150</b>	<b>250</b>	<b>300</b>	<b>140</b>	<b>/</b>
<b>Sombor hen</b>	<b>269</b>	<b>260</b>	<b>200</b>	<b>159</b>	<b>100</b>
<b>Nacked Neck</b>	<b>730</b>	<b>560</b>	<b>450</b>	<b>207</b>	<b>50</b>

## **Incentives in 2017**

<b>Species</b>	<b>Euro/head</b>	<b>No. of breeders/2015</b>
Cattle	250	50
Buffalo	250	144
Horses	250	48
Pigs	83	48
Sheep	37	43
Goats	37	17
Chicken	4	2

- Till 2001 applied conservation programme was economically and technically far away from sustainable.
- Conservation concept had significant changes.
- The new animal genetic conservation strategy is taking more care of sustainability of on-farm conservation programs.
- Reintegration of the AnGR conservation with the traditional mixed-farming systems and non-agricultural activities was promoted.

## **ALTERNATIVE APPROACHES FOR THE MANAGEMENT OF AnGR**

### **Production systems based on AnGR in the regions with natural constraints**

- Mountain marginal areas
  - poor soil
  - rough climate

Locally adapted breeds in these areas are the option for revitalization production of typical products with high quality, ecological labels and geographic indication.

## **ALTERNATIVE APPROACHES FOR THE MANAGEMENT OF AnGR**

### **Conservation of AnGR to support biodiversity conservation strategy**

- **Modern livestock production caused extinction locally adapted breeds**
- **Neglecting of livestock production in some regions caused disappearance of biodiversity**
- **In mountain areas absence of grazing halved the number of plant species**
- **In lowland grasslands absence of grazing have lost some small mammals and birds**

## **ALTERNATIVE APPROACHES FOR THE MANAGEMENT OF AnGR**

### **Conservation of AnGR and protection of rural regions and landscape diversity**

- **Traditional farming maintained several types of rural landscapes valuable from ecological, social and economic standpoint**
- **These spaces make challenge of public interest for its conservation and integration of locally adapted breeds into profitable production systems. Developing of non-agriculture activities, like rural tourism.**

## **ALTERNATIVE APPROACHES FOR THE MANAGEMENT OF AnGR**

### **Improvement of forests and water management in light of conservation of AnGR**

- **Reduction of pollution – Intensive livestock farming**
- **Disease resistance**
- **Better utilize of natural feeds**



## **ALTERNATIVE APPROACHES FOR THE MANAGEMENT OF AnGR**

### **Cultural heritage and conservation of AnGR**

- Typical artisan products are part of the cultural heritage
- Traditional knowledge for processing
- Introduction of tourism



**Main tasks for the future work:**

- 1. Financial support for implementation of GPA**
- 2. Developing scientific research (DNA.....)**
- 3. Capacity building**
- 4. Public awareness (fairs, flyers.....)**
- 5. Improving the quality of local products (PDO, PGO, organic)**

**Main tasks for the future work:**

- 6.Sustainable use of AnGR and their valorization true agroturism**
- 7.Harmonisation legislatives with EU**
- 8.Cooperation on global, regional and national levels**
- 9.Establishing of Gene Bank**
- 10. Developing of breeding programme**

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**Thank you for your attention**

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