

## ERFP Country Report 2011 – 2012

**COUNTRY:** MONTENEGRO

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### Strategic Priority Area 1:

#### Characterization, Inventory and Monitoring of Trends and Associated Risks

Activities on the identification and inventory of the new heads of AnGR with emphasize on the most endangered autochthonous breeds and monitoring of already identified heads of autochthonous breeds were continued during the 2011.

As results of these activities identified new heads of below listed breeds and its proposed for including in program of in situ conservation:

- a) Busha breed of cattle - identified two new farms and 22 new heads,
- b) Sora sheep breed - identified one new farm with about 150 heads,
- c) Ljaba sheep breed - identified one new farm with about 90 heads.

Activities of identification include as well preliminary morphological characterization (collecting data about body measures, exterior characteristics like pigmentation of hair and nostrils, size and shape of horns etc), information about current population size, location and geographical distribution.

Molecular genetic characterization of Busa cattle for 105 microsatellites was done. It is published in paper: I. Medugorac et al. (2011) Conservation priorities of genetic diversity in domesticated meta populations: a study in taurine cattle breeds, Ecology and Evolution Vol. 1, No. 3 pg. 408 - 420.

A national research project for morphological and genetic characterisation of three autochthonous sheep breeds submitted in 2011 has adopted for financing in next three years (2012-2014). Sheep breeds covered by this project are: Pivska pramenka, Zuja and Sora.

Plan for 2012, beside of morphological and genetic characterization mentioned three sheep breeds is continuo on activities for identification of new flocks and heads of autochthonous breeds of AnGR, as well as monitoring already identified heads.

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### Strategic Priority Area 2:

#### Sustainable Use and Development

Exact actions targeted to improve of sustainable use of AnGR did not undertake in last yaer. Generally the most chances for sustainable using there are for sheep breeds: Pivska pramenka and Sora becouse boat of them are convenient for extensive way of rearing, and its products (milk products and lamb meat) are very well accepted by consumer and has good prices.

The opposite situation is with Zetska zuja sheep breed and Bush breed of cattle. Both of them are not economically attractive for rearing primarily due to low productivity and it is very difficult organize sustainable using and development of them.

### **Strategic Priority Area 3:**

#### **Conservation**

(please give details for the most relevant institutions for national genebanks / cryopreservation in the table in Annex 1)

Only In situ program of conservation of farm animal genetic resources in Montenegro has established. There is no institutional capacities and technical possibilities for organising of cryoconservation and genbank of AnGR.

The list of breeds with number of flocks and heads which are included in In situ program of conservation in the last year were:

- five farms of Busa cattle with 77 heads (70 cows and 5 bulls),
- two flocks of Zetska zuja sheep breed (65 ewes and 4 rams) + a flock of Piperska zuja (48 ewes and 2 rams),
- two flocks of Sora sheep breed (260 ewes and 6 rams),
- three flocks of Pivska pramenka sheep breed (335 ewes and 10 rams),
- one flock of Ljaba sheep breed (77 ewes and 3 rams).

For breeds included into Program of in situ conservation, farmers were obliged by signing the contract in which obligation were clearly defined. In the state budget for Agriculture (Axis two of Rural development policy) premiums for Animal genetic resources were provided.

- Busha cattle breed 80+60 € /head (total 140€/head),
- for Pivska pramenka, Sora and Piperska zuja sheep breeds 10 +8 € / head (total 18 €/head) ,
- Zetska zuja breed of sheep (as the most endangered and with risk of extinction it is 10 + 15 €/head (total 25 €/head).

### **Strategic Priority Area 4:**

#### **Policies, Institutions and Capacity-building**

Montenegrin team responsible for implementation of the Program for conservation and sustainable use of AnGR in 2011. has participated on:

- FAO Workshop about Inventarisation, monitoring and characterisation of AnGR hold in Tartu in Estonia in May 2012,
- Workshop about In vivo conservation hold in Wageningen in Jun 2011,

We organized three days Workshop for two ERFP regional projects (Development of regional network in function of sustainable breeding programs for transboundary breeds - Project-coordinator Dr Ante Ivankovic and :Evaluation of Current Status of Busha Cattle and develop a regional breeding program for their conservation and sustainable economic use - Project coordinator dr Kristaq Kume) in period since 28th Jun to 2nd July 2011 in Kolasin - central part of Montenegro,

We participated on 8. RGB Conference hold in Tekirdag in Turkey - October 2011,

New lab for molecular genetic analyses has equipped situated at Biotechnical Faculty - Department of Livestock Science, and it was organised three days workshop about implementation different methods of molecular genetics analyses in conservation genetic resources.

The national database of AnGR in EFABIS with direct links to the DAD-Is has updated.



**Annex 1: List of relevant national institutions for national Genebanks / Cryopreservation Experts**

institution, address, e-mail, homepage, phone / fax	contact person / expert incl. e-mail	animal species	type of genetic material	remarks