Evaluation of Current Status of Busha Cattle and develop a regional breeding program for their conservation and sustainable economic use.

ERFP Project

August 2010-August 2012

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Justification

During last 5 years in SEEC and Balkan countries, in farme of ERFP Call for Action, was implemented different projects. Among those could listed:

(i) Possible way of conservation the multipurpose Tsiga i and other indigenous sheep breeds in Central, Eastern European and Balkan countries. Coordinator country Hungary and Albania

(ii) Current Status of the Brachycerous Cattle Populations in the SEEC and strategies for their Sustainable Conservation Coordinator country Slovenia

(iii) Study of origin and conservation strategy of the Pramenka sheep breeds as regional transboundary breeds Coordinator country Croatia

(iv) Development of regional network in function of sustainable breeding programs for transboundary breeds Coordinator country Croatia
Analyzing the Final Reports of above projects, among their outputs could listed, as the most important for the future common actions, the following:

First,

The need for elaboration the tools and guide lines for cross border collaboration in Balkan countries

Second,

The need for establishment an effective cooperation between all stakeholders:
(i) public institutions,
(ii) farmers, farmers organizations,
(iii) NGO-s,
(iv) researchers and academic staff of universities
for optimizing breeding programs of transboundary breeds

Third,

The need for strengthen the role of National Coordinators as one the most important public institution for coordinate and carried out the crossborder cooperation
Other products of ERFP Projects in BALKAN countries region are:

- There is enough information to assess the actual status, trend of populations, productive and reproductive traits, production systems, status of genetic programs, *In situ* or *Ex situ* programs and, there is enough information to estimate the risk of extinction for different sheep and cattle transboundary breeds.

- The experiences in field of compilation and implementation of programs for conservation and sustainable use of FAnGR has been exchanged.

- During ERFP workshops has been discussed the different potential projects as part of programs of regional and cross border cooperation.

- The ways and need for capacity building to support the compilation and implementation of regional of cross border projects has been discussed.
Actual needs

- It is the time for formulating principles and guidelines for drafting and implementing regional and cross border programs and/or projects
- It is the time for design the cooperation as a model of closely and continued cooperation between national experts, institutions and breeders in optimizing sustainable breeding (conservation) program for transboundary breeds
New ERFP – Project  
August 2010-August 2012

Conservation and sustainable use of Busha Cattle breed

The Project Objective in general terms
The sustainability of ERFP projects and achievement of their effects in Balkan region

To carryed out this objective the project will elaborated a

MODEL FOR SUSTAINABLE CROSSBORDER CONSERVATION PROGRAM FOR TRANSBOUNDARY BREEDS

as a tool for strengthen the capacity of ERFP and their role in Balkan regions
Why Busha?

- The Busha Cattle is in high danger of extinction. It exists in the Balkans since Neolithic times. It is adapted to harsh environmental conditions and spread with numerous strains, but in small fragmented relict populations throughout the Balkans. 

To transboundary Busha breed of cattle belong the following breeds or types of cattle:

- Busha cattle of Croatia
- Busha cattle of Bosnia and Herzegovina,
- Busha cattle of Montenegro,
- Busha cattle of Serbia,
- Busha cattle of Kosovo (Dukadjini busha and Shara busha),
- Busha cattle of Albania (Busha, Ilirian cattle, Prespa cattle),
- Busha cattle of Macedonia,

and probably similar cattle breed

- Rhodope cattle of Easter Bulgaria and
- Autochthonous Brachiceros cattle of Greece
Why Busha?

- A meeting of experts on “Shorthorn Cattle of the Balkans” 2008 in Pogradec, Albania, showed that concrete population data are still missing in the most Balkan countries.

- The survey of ERFP Project “Current Status of the Brachycerous Cattle Populations in the SEE Countries” did not bring clear information about pure-breed Busha Cattle.

- Genetic distance investigations showed, that the virtual unselected Busha breeds exhibit a very high degree of diversity within an identified cluster of Busha cattle.

- Breeding organisations do not yet exist, except in Croatia.
Objectives of the project

Monitoring
To implement a sustainable breeding strategy it is necessary:

To collect data about:

- The current use of Busha Cattle.
  In most of our countries no exact census exists.

Especially in Albania, FYR Macedonia, Kosovo, Montenegro and Bosnia Herzegovina

the need for search tours is necessary

THE “WHITE SPOTS” ON THE MAP OF DISSEMINATION OF BUSHA CATTLE SHALL BE CLOSED

To collect data about:

Market chains, products and services like working power and grazing for nature protection purposes.
Objectives of the project

**Characterisation and Differentiation:**

Different types of Busha has developed historically. There are modifications in color or in size and production.

An exact identification of Busha varieties, is required.

Through a phenotypical characterisation, animals shall be selected for breeding.

It is important to select representative bulls of good quality.

Molecular-genetic data shall be used in addition to the phenotype.

The results of genetic investigations shall be used for identified the varieties of Busha cattle that can be collected for conservation program in regional level.
Objectives of the project

**Support processing and marketing of Busha`s products and services:**
- Promoting local, traditional and quality food products *and*
- Selling “cultural heritage” and “tradition” within the tourist industry

**Argument:**
Small-scale production units and farmers interested in keeping the local cattle breed to produce traditional foods is important in both, conservation of the breed and rural development.

**Capacity building to support in-situ conservation**

**Approach**
- Including all the stakeholders in the process from the beginning of the project.
- Spreading within the stakeholders the best practices.
- A model of dissemination of breeding animals, building up of nucleus herds and satellite herds shall be promoted.
- An adaptation of modern artificial selection methods to traditional breeding schemes shall be developed
Objectives of the project

Develop a model for cross-border conservation:

Argument

Up to now in the Balkans region a cross-border programme for \textit{in-situ} conservation of rare autochthonous breeds not exists.

The Busha cattle \textit{in-situ} conservation program, shall run as a model for an interdisciplinary and cross-border conservation strategy.
## ACTIVITIES

### Data collection - Actual information

<table>
<thead>
<tr>
<th>Area of distribution</th>
<th>Croatia</th>
<th>B&amp;H</th>
<th>Monte Negro</th>
<th>Serbia</th>
<th>Kosovo region*</th>
<th>FYROM</th>
<th>Albania *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain and coastal area</td>
<td>Mountain area</td>
<td>Mountain area</td>
<td>Mountain and flat area</td>
<td>West. Kosovo and Shari mountain</td>
<td>Montain area and Prespa lake</td>
<td></td>
<td></td>
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<tr>
<td>Population size</td>
<td>190</td>
<td>80</td>
<td>100</td>
<td>700</td>
<td>1000 + 1000</td>
<td>500+800+400</td>
<td></td>
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<tr>
<td>Risk status</td>
<td>Critical</td>
<td>Critical</td>
<td>Critical</td>
<td>Endangered</td>
<td>Endangered</td>
<td>Critical - endangered</td>
<td></td>
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<tr>
<td>Body weight, kg¹</td>
<td>250</td>
<td>200-300</td>
<td>200-300</td>
<td>280</td>
<td>300-380</td>
<td>200-250</td>
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<tr>
<td>Height, cm¹</td>
<td>103-108</td>
<td>102-112</td>
<td>100-118</td>
<td>100-110</td>
<td>100-120</td>
<td>100-125</td>
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<tr>
<td>Milk yield / lactation, kg¹</td>
<td>600-1400</td>
<td>900-1500</td>
<td>700-1500</td>
<td>800-1200</td>
<td>900-1800</td>
<td>700-1400</td>
<td></td>
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<tr>
<td>Conservation program</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

¹ Estimation data
Need for action

- During the fieldtrips, data shall be collected about the different types/strains of Busha cattle. The animals found shall be marked and recorded in a simple and comprehensible recording system.
- A consensus with farmers is needed about the recording systems.
- Possibilities for cross border data management should be exploited.
Questionnaire for Update the information
The following phenotypic characteristics will be collected:
Birth weight male (kg)
Birth weight female (kg)
Longevity (years in production)
Type of horns
Average age at sexual maturity (male, month)
Average age at sexual maturity (female, month)
Age at first parturition (avg. month)

Milk yield per lactation (avg. kg)
Milk yield per lactation (min, kg)
Milk yield per lactation (max, kg)
Lactation length (avg. day)
Lactation length (min, day)
Lactation length (max, day)
Milk yield per day (avg. litre)
Milk fat (avg. %)
Milk fat (min, %)
Milk fat (max, %)
Carcass Weight (avg. kg)

Priorities regions:
- Albanian region
- Macedonian region
- Kosovo region
- B&H region

Desk study:
Collect and analyse the results of genetic studies: DNA – analyses
Genetic distances etc..
### Activities

**Farmer`s cooperation in national and regional level**

- Not only technical issues of conservation shall be taken into consideration, but also approaches to a sustainable conservation in small farming systems. Basic recording systems shall be worked out to build up breeding organizations.

- Nucleus breeding should be the crux of conservation. Purebred animals shall be used for breeding.

- Establish the farmer`s cooperation as a cross-border process need a more or less centralized management.

#### Needs for Information - Questionnaire

- Description of production systems
- Evaluation of the Status of farmer`s cooperation
- The current status of conservation projects and
- The National Action Plan regarding the conservation and sustainable use of Busha Cattle breed
Activities

Identification the market chains and promote the traditional products

➤ The situation of the holder as well as opportunities for conservation through sustainable products and services will be covered. Best practice methods for marketing will be identified.

➤ Farmers need to be motivated not only to test the performance of their animals, but

TO PROMOTE THEIR SPECIAL TRADITIONAL PRODUCTS, too.

Consequently:

Successful strategies, from other parts of Europe as well as in the Balkans, using ideas of promoting local and quality traditional food products, will be identified and adapted according to characteristics of each partner country.

Actions:

Identification and promote the good experiences at national level

Enhance the national and crossborder initiatives for organizing the promotion activities –animals and local traditional milk and meat products form Busha cattle
Common activities

**First Workshop** - Presentation the Current status of Busha cattle and National programs/projects for conservation and sustainable use in each partner countries.

Discuss about the role of different stakeholders and possible ways to develop a common approach for a cross-border/regional *in-situ* conservation concept.

**Option** – Workshop will be held in Prishtina

**Second workshop** - Meeting will served to share the experiences regarding the methodology of promoting local and quality food products and selling “cultural heritage” and “tradition” within the tourist industry

**Option** – Workshop will be held in Pogradeci region, Albania
The general outputs in context of one model

- Based on the results of the Busha project, a concept, a model, will be developed for cross-border *in situ* conservation, and will be made available to the stakeholders. This model shall been used for:

  | Establishment of Regional Network for conservation and sustainable using of transboundary Busha breed. |
  | In the Network would be participate all three stakeholder pillars: |
  | (i) government responsibilities, (ii) University and research stakeholders, (iii) breeders and their associations, as well as NGOs |

| Compilation of an unique regional breeding program for Busha breed: |
| (i) Establishing of *in situ* conservation (defined breed standards, exchange breeding material), (ii) Establishing of breeding register and herdbook (iii) Development the work for promotion the Busha breed (quality traditional products, cultural heritage, ect.) |

- The project shall compiled the requirements and possibilities of cross-border conservation and will served as a basis for further implementation of sustainable *in-situ* conservation of the genetic resources of the Balkan area
Thank you!