

**16th Annual Workshop for European National Co-ordinators  
for the Management of Farm Animal Genetic Resources**  
Creta Maris Conference Centre, Heraclion, Crete, Greece  
21 August, 2010

**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**

**Prof.Dr. Kristaq Kume**

**NC of FAnGR - ALBANIA**



## **Justification**

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

**(i) Possible way of conservation the multipurpose Tsigai 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 *land 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 carry out this objective the project will elaborate 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 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 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 *in-situ* conservation of rare autochthonous breeds not exists.

The Busha cattle *in-situ* conservation program, shall run as a model for an interdisciplinary and cross-border conservation strategy



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## ACTIVITIES

### **Data collection - Actual information**

	Croatia	B&H	Monte Negro	Serbia	Kosovo region*	FYROM	Albania *
Area of distribution	Mountain and costal area	Mountain area	Mountain area	Mountain and flat area	West. Kosovo and Shari mountain		Montain area and Prespa lake
Population size	190	80	100	700	1000 + 1000		500+800+400
Risk status	Critical	Critical	Critical	Endangered	Endangered		Critical - endangered
Body weight,kg <sup>1</sup>	250	200-300	200-300	280	300-380		200-250
Height, cm <sup>1</sup>	103-108	102-112	100 -118	100-110	100-120		100-125
Milk yield / lactation, kg <sup>1</sup>	600-1400	900-1500	700-1500	800-1200	900-1800		700-1400
Conservation program	Yes		Yes	Yes	Yes		Yes



<sup>1</sup> 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 be used for:

### **Establishing 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

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