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Izlaganje sa znanstvenog skupa

COLLABORATION IN THE FIELD OF CONSERVATION OF ANIMAL GENETIC RESOURCES

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Summary

Cooperation in the fields of local breeds of farm animals in neighboring countries is particularly important. In the scientific field for such collaboration more or less there, but they are more sporadic than systematic. In the field of conservation autochthonous breeds and study their properties can deepen cooperation on many levels; on scientific research, the technical and technological and practical work. All this would help by sharing experience contribute to better understanding and promotion of our autochthonous breeds of farm animals and contribute to more effective conservation of these. In particular, we can improve breeding programs for those breeds that are bred in several countries-the so-called transboundary breeds.

Key words: animal genetic resources, local breeds, collaboration.

Introduction

The vision on conserving of biodiversity for food and agriculture and promoting its use in support of global food security and sustainable development, for present and future generations. The Animal Genetic Resources for food and agriculture (AnGRFA) are a common concern of all countries, in that all countries depend on genetic resources for food and agriculture that originated elsewhere, the countries are obligate strives to halt the loss of genetic resources for food and agriculture, and to ensure world food security and sustainable development by promoting their conservation, sustainable use, including exchange and the fair and equitable sharing of the benefits arising from their use.

The Global Plan of Action contains four Strategic Priority Areas:

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- Characterization, inventory and monitoring of trends and associated risks;
- Sustainable use and development;
- Conservation;
- Policies, institutions and capacity building.

The Interlaken Declaration commits countries and organizations to implement the Global Plan of Action.

The first Slovenian Multiyear Program of Work was approved by Slovenian Government in period 2001-2009, the second Slovenian Multiyear Program of Work on Animal Genetic Resources for Food and Agriculture (MyPoW AnGRFA) was approved by Ministry of Agriculture, Forestry and Food MAFF) for period of 2010-2016. The Program exist all four mentioned Strategic Priority Areas. In the area "Policies, institutions and capacity building", the international cooperation exist great stress (Program varstva ..., 2010).

Institutional collaboration existed in some projects
(Overview cooperation in the field of indigenous breeds of farm animals in the past)

Collaboration Slovenia - Italy:

ALPINET GHEEP was an interregional project which supports and promotes the sheep and goat farming sector in the Alpine Arc, and which was developed in the course of various meetings held at events, fairs and conferences between the heads of various associations of sheep and goat farmers, experts from research institutions and regional government officials.

Project Alpinet gheep was a transnational project that aims to foster and promote the sheep and goat sector in the Alpine areas. The project has been developed during numerous meetings held on occasion of events, fairs and summits among local governments, breeding associations and research institutes.

The cooperation was encouraged by the presence of common problems as: need of updated information about breeding systems,

animal health problems, difficulties in finding breeders, products marketing and trading. The contact of different ideas and proposals has eventually been translated into a coherent project. In the frame research field on molecular genetic analyses were included different breeds: Bovška and Jezersko-solčava, Biellese and Bergamasca breed with University of Padua (genotyped around 50 animals for each breed using 19 microsatellite molecular markers).

In frame of Sheep HapMap Project with University of Bari - Department of General and Environmental Physiology – "Genetic Diversity within Breeds, Relationship between Breeds and Population Structure" we collaborate with Istrian pramenka and Italy with Altamurana and Leccese breed (Validation and Performance of the Ovine SNP50BeadChip).

It exist some other type of collaboration. Between Slovenia and Italy we collaborate in field of Istrian pramenka (Carsolina) in exchange of breeding material, similar collaboration exists by bovška (Plezana) sheep breed.

Research of Istrian pramenka (Carsolina) milk lamb meat - influence of carcass weight and feeding system

Collaboration Slovenia - Croatia - Hungary:

An ERFP projects on Horse MURINSULANER (CRO, HU, SLO, A), where the old forgotten horse breed where to try restored (The project title: Management of traditional transboundary breeds on the example of a nearly forgotten breed, the Murinsulaner.

The objective of the project was

- construct an international registration of Murinsulaner (type)
- define the standards of breed (type)
- build the criteria for the breed character
- measurements
- scoring form of conformation
- comparison of different types in practice
- selection of form of utilization of Murinsulaner horses
- define the selection criteria
- demonstrate the use of the breed (agriculture, forestry, etc.)

- possible use in tourism
- proposal for an international stud book

An ERFP Project: Current status of the brachycerous cattle populations in the SE European countries and strategies for their sustainable conservation (SLO, CRO - and some other countries) (Kompan and Cividini 2008).

Genetic characterisation of different Croatian autochthonous breeds, Gene Polymorphism in some milk breeds (CRO, SLO) (Ivanković&Dovč, 2004, Čurik et al., 2003)

Cattle: (cika – buša – istarsko govedo /boškarin/ – podolian breed: SLO, CRO, IT, HU). Exchange the information (genotyping) and exchange the breeding material (Simčič et al., 2008).

Conservation of indigenous breeds is one of the basic tasks that must be guaranteed by the Member in accordance with the CBD and the Interlaken Declaration. It is also multi-program (FAO, 2007) provides that states should take care of probably on its territory, but also participate in conservation sooner.

Possible way to extent collaboration in the future (Collaboration in the field of conservation of Animal Genetic Resources)

The field, where we can extend and deepen our cooperation, was particularly in cross-border and transboundary breeds.

We see that in some cases has already been cooperation in the past, but cannot be satisfied because it could increase cooperation in research, education and conservation strategies for improving local breeds of domestic animals.

We can help out genetic analysis (some of which were already carried out) -we refer here mainly to new technologies, such as genomic SNP analysis. It is likely that in future we will do the new maps, structure and evolution of species and identify their structure, development and integration.

In-depth analysis could be performed for breeds:

Equine
Lipizzaner - (SLO, CRO, HU, IT, A…)
Murinsulaner - (SLO, HR, HU, A)
Posavje horse - (SLO, CRO)
Some breeds of Donkeys (CRO, HU, IT, SLO)

Cattle
Cika (SLO)
Busha (CRO)
Boškarin –Podolian (CRO, IT, SLO?)

Sheep
(Istrian pramenka (Carsolina) (SLO, CRO, IT)
Jezersko-solčava breed (Bergamasca and Padovana breed?) (SLO, CRO, IT)
Belakrajina pramenka (Lička pramenka?) (SLO, CRO)
Bovška sheep (Plezana) breed (SLO, IT)

Goat
Drežniška goat –SLO, IT?

Pigs
Krškopolje pig (SLO),
Turopolje pig (CRO),
Black Slavonian (HR, HU?)
Mangalica (HU, CRO, ?)

Poultry
Styrian hen (SLO), Hrvatica (CRO)?

Honeybee
Carniolan honey bee (kranjska sivka) -*Apis mellifera carnica Pollman* (SLO, CRO, HU, IT?)

The collaboration and mission between (multi)countries' work can be a promoting the genetic, economic, cultural, historical, environmental

and social values of farm animal diversity for needs of future rural development, production systems, markets and the trap of climate changes.

In some cases, there is cooperation (CRO, SLO), for example in the Pag Sheep breed, which is involved in the breeding value evaluation.

On each local breed in our countries we can:

- provides tools to maintain genetic variation in living populations (in situ conservation) and to design cryo-banking of genetic materials (ex situ conservation)
- maintains and updates the register with characteristics of Nordic and Baltic Farm animal breeds
- initiates research and development projects on the characterization, conservation, management and sustainable use of animal genetic resources
- organizes workshops, seminars and courses for gene resource coordinators, students, researchers, animal breeding experts and administrative officers
- facilitates a good cooperation among different stakeholders and groups
- provide a variety of information channels as web site, electronic newsletter, periodicals, folders, projects and reports
- promotes sustainable breeding practices and sound principles of fair trade of genetic material

Conclusions

The mission of Universities and scientists and researchers to seek the truth, links, law of nature, solutions and draw attention to the traps. One of the facts which the company now supports is that we preserve biodiversity, maintain the indigenous local breeds and learn about their properties and valuables. We want to preserve for future generations, because in them a lot of "bio - data", which were collected over the centuries and perhaps millennia.

For this reason it is important to work together both institutions as well as scientists in such a way as to contribute to a better understanding

of our native breeds and their characteristics. We can help and also to maintain. One of the species conservation is an ex-situ and in vitro, where we have some many species to ascertain that we can successfully stored biological material which would allow future use for reproduction.

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SURADNJA NA PODRUČJU OČUVANJA ANIMALNIH GENETSKIH RESURSA

Sažetak

Suradnja susjednih država na području očuvanja lokalnih pasmina domaćih životinja je od posebne važnosti. U području znanstvenih istraživanja dosadašnja suradnja je bila uglavnom više sporadična negoli sistematična i istraživanja njihovih svojstava suradnja se odvijala na nekoliko razina: znanstvenoj, tehnološkoj i praktičnoj. Sve navedeno trebalo bi pomoći u razmjeni iskustava, boljem poznavanju i promociji lokalnih pasmina domaćih životinja kao i njihovoj zaštiti. Nadalje, kao rezultat može proizaći unapređenje uzgojnih program za pasmine koje se pojavljuju u partnerskim zemljama.

Ključne riječi: životinjski genetski resursi, lokalne pasmine, suradnja.

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