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NAZIONALE E COMUNITARIO

CICLO XXVI

# REFLECTION ON LEGAL ISSUES RELEVANT TO CONSERVATION AND SUSTAINABLE USE OF FARM ANIMAL GENETIC RESOURES IN ALBANIA


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**Content**

**Abbreviations and acronymus**

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|---|---|
| **ABS** | Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization |
| **AIA** | Advanced informed agreement |
| **AFSS** | Agriculture and Food Sectoral Strategy 2007-2013 |
| **AIC** | Artificial Insimination Center |
| **APS** | Animal Production Sector |
| **AWC** | Animal Welfare Council |
| **CAP** | Common Agricultural Policy |
| **CBD** | Convention on Biological Diversity |
| **CCBI** | Central Commission for Breed Improvement |
| **CGRFA** | Commission on Genetic Resources for Food and Agriculture |
| **COP** | Conference of the Parties |
| **DAD-IS** | Domestic Animal Diversity-Information System |
| **DPP** | Directorate of Production Policies |
| **EAD** | European Biodiversity Day |
| **EC** | Council Regulation |
| **EFABIS** | European Farm Animal Breed Information System |
| **ELBARN** | The European Livestock Breeds Ark and Rescue Net |
| **ERFP** | European Regional Focal Point |
| **EU** | European Union |
| **FAO** | Food and Agriculture Organization of the United Nation |
| **FAnGR** | Farm Animal Genetic Resources |
| **FPIC** | Free and Prior Informed Consent |
| **GATS** | General Agreement on Trade in Services |
| **GATT** | General Agreement on Tariffs and Trade |
| **GB** | Genealogical Book |
| **GMBSM** | Global Multilateral Benefit-Sharing Mechanism |
| **GPA** | Global Plan of Action |
| **GR** | Genetic Resources |
| **LIPRO** | Local Immovable Property Registration Offices |
| **LMO** | Living modified organisms |
| **ITWG-AnGR** | Intergovernmental Technical Working Group on Animal Genetic Resources |

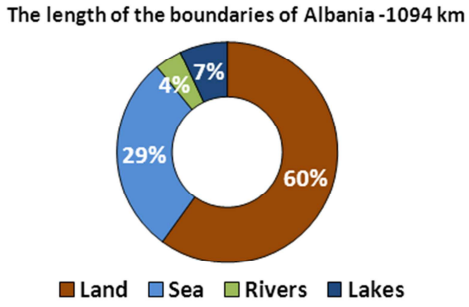
| | |
|---|---|
| **IR** | Registration System |
| **MAA** | Material Acquisition Agreement |
| **MAT** | Mutually Agreed Terms |
| **MARDWM** | Ministry of Agriculture, Rural Development and Water Management |
| **MTA** | Material Transfer Agreement |
| **MoAF** | Ministry of Agricultue and Food |
| **MoEFWA** | Ministry of Environment, Forests and Water Administration |
| **MoAFCP** | Ministry of Agricultue, Food and Consumer`s Protection |
| **NATO** | Organization for Security and Co-operation in Europe |
| **NBP** | National Breeding Programm |
| **PIC** | Prior Informed Consent |
| **SARD** | Sustainable Agriculture and Rural Development |
| **TCP** | Technical Cooperation Project |
| **TK** | Traditional Knowledge |
| **TRIPS** | WTO Trade-Related Intellectual Property Rights Agreement |
| **OIE** | World Organisation for Animal Health (Office International des Epizooties) |
| **UDAW** | Universal Declaration on Animal Welfare |
| **WIPO** | World Intellectual Property Organization |
| **WTO** | World Trade Organization |

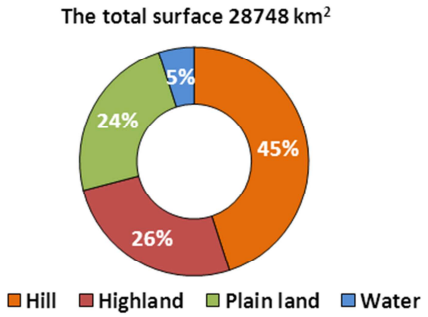
## Intoduction

## ALBANIA – General information


Albania officially known as the Republic of Albania is a country in Southeastern Europe. It is bordered by Montenegro to the northwest, Kosovo to the northeast, Macedonia to the east and Greece to the south and southeast.

It has a coast on the Adriatic Sea to the west, and on the Ionian Sea to the southwest. It is less than 72 km from Italy, across the Strait of Otranto which links the Adriatic Sea to the Ionian Sea.




The modern-day territory of Albania was at various points in history part of the Roman provinces of Dalmatia (southern Illyricum), Macedonia (particularly Epirus Nova), and Moesia Superior. The modern Republic became independent after the collapse of the Ottoman Empire in Europe following the Balkan Wars. Albanians had for almost five centuries been at the heart of a sprawling empire in which they enjoyed a privileged position as administrators and generals. Albania declared independence in 1912 (to be recognised in 1913), becoming a Principality, Republic, and Kingdom until being invaded by Italy in 1939, which formed Greater Albania, which in turn became a Nazi protectorate in 1943. In 1944, a socialist People's Republic was established under the leadership of Enver Hoxha and the Party of Labour. In 1991, the Socialist Republic was dissolved and the Republic of Albania was established.

According to the 2011 Census results, the total population of Albania is 2,821,977. Its population is relatively young by European standards, with a median age of 28.9 years. The fall of the Communist regime in 1990 Albania was accompanied with massive migration. External migration was prohibited in Communist Albania while internal one was

quite limited, hence this was a new phenomenon. Between 1991 and 2004, roughly 900,000 people have migrated out of Albania, about 600,000 of them settling in Greece. Migration greatly affected Albania's internal population distribution. Population decreased mainly in the North and South of the country while increased in Tirana and Durres center districts.

The 2011 Census had declared the following religious affiliations: 56.7% Muslim, 10.03% Roman Catholic, 6.75% Albanian Orthodox, 5.49% Unaffiliated, 2.5% Atheist, 2.09% Bektashi, 0.14% Protestant/Evangelical. Before World War II, there was given a distribution of 70% Muslims, 20% Eastern Orthodox, and 10% Roman Catholics. Today, Gallup Global Reports 2010 shows that religion plays a role to 39% of Albanians, and puts Albania in the list of the 14 least religious countries in the world, with Albania the thirteenth least religious country in the world.

Albanian was proven to be an Indo-European language in 1854 by the German philologist Franz Bopp. The Albanian language comprises its own branch of the Indo-European language family.

With its coastline facing the Adriatic and Ionian seas, its highlands backed upon the elevated Balkan landmass, and the entire country lying at a latitude subject to a variety of weather patterns during the winter and summer seasons, Albania has a high number of climatic regions relative to its landmass. The coastal lowlands have typically Mediterranean weather; the highlands have a Mediterranean continental climate. In both the lowlands and the interior, the weather varies markedly from north to south.

The annual average air temperature has a wide variation over the territory. Absolute minimal temperature recorded -25,8 $C^0$ and the highest 43,9 $C^0$. The average annual temperature varies from 17.6 $C^0$ (Saranda-South region) to about 7 $C^0$ (Vermoshi-North region).

Albania is known as a country with a very high sunshine period. The mean annual precipitation total over the Albania is about 1,485 mm/year. The highest precipitation total (70%) is recorded during the cold months (October-March).

Albania is a member of the UN, NATO, the Organization for Security and Co-operation in Europe, Council of Europe, World Trade Organisation, Organisation of Islamic Cooperation and one of the founding members of the Union for the Mediterranean. Albania has been a potential candidate for accession to the European Union since January `03, and it formally applied for EU membership on 28 April 2009.

**Agriculture–General information**

Agriculture is one of the most determinative sectors of the Albanian national economy. Its contribution has been decreasing over years and it is estimated at about 17% of the GDP. Agriculture provides the income basis for most of the population and serves as an employment safety net. The rural population is estimated to comprise about 50 percent of the total population while about 60 percent of the labor force works in agriculture and related fields. The real mean growth rate of agriculture production during the last five years is estimated to about 3-3.5% per year. Agriculture sector growth is below the national average rate and far from its real potential. Factors affecting the slow growth and development of this sector, can be divided into two main categories:

(i) structural problems of the sector and rural economy in general, such as limited surface and large land fragmentation, the migration from rural areas, land ownership, the irrigation and drainage system, infrastructure problems and lack of access to markets, low level of development of agrofood industry;

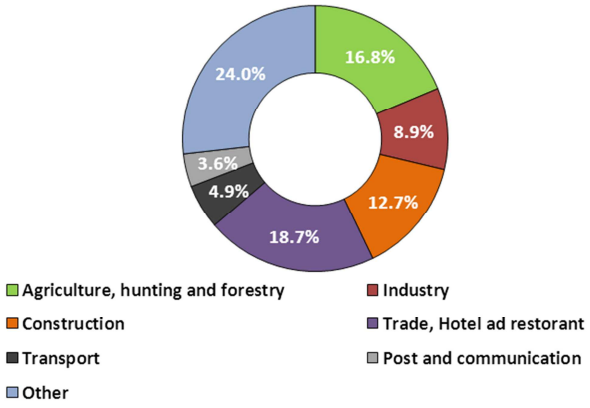



Figure 1**.** Main Macroeconomic Indicators

(ii) low level of used technologies, weak organizations of farmers, lack of access to financing and qualitative services, etc. It seems that, especially during the first years of transition, these problems had a negative impact on the interest for substantial investment in production, collection, processing and marketing agricultural products. However, during recent years, farmers and rural businesses are increasingly interested to invest in agriculture, especially in crops and high value products such as vegetables, fruit-growing, livestock and processing of some of these products, has increased

The agricultural sector suffers from the small size of farms and the fragmentation of farm land, which is a barrier to production and marketing.

Higher competitiveness, as a result of lower costs and higher quality, food safety and standards, will strengthen the position of farmers in the market, will raise their income

and will introduce safer products in the market for farmers.

This is the result of the specific problems that this sector is facing, among which the most evident are the migration from rural areas, land ownership and very limited size of farms, the marketing of products, the irrigation and the drainage system, the low level of technologies in use, the weak organization of farmers, the low development level of agro – processing, etc.

**Agricultural land[1]**

The total agricultural land represents 24.2% (approximately 697,000 ha) of the total area of the country, about 561,000 ha of which are privately owned. About 43% (or 304,000 ha) of the total agricultural land is in lowland areas with high productivity capacity, about 34% (234,000 ha) is in hilly areas and about 23%(159,000 ha) is in the mountainous areas. Land privatization reform was among the first reforms undertaken in 1991. The distribution of 697,000 ha of agricultural land in proportion to the ownership is as follows:

(i) about 561,000 ha are privatized by farmer families (or 80%);

(ii) about 137,000 ha are owned by the state, of which 110,000 are administered in accordance with law no. 8312 dated 26.03.1998[2], while 27,000 ha are defined as available to the state.

The land administration is still facing many problems, such as:

(i) completion of land registration and administrative regulationof land ownership rights (mainly issuance of ownership titles),

(ii) resolution of conflicts on land property,

(iii) development of land market for agricultural use,

(iv) good management of privatized land and increase its effectiveness use, operation of publicly owned land, etc.

The process of acquiring the land ownership title or acquiring the “title-deed” has

Been realised in 561,000 ha or 96.6% the total area that is actually being distributed.The process of first registration of agricultural land as immovable property has been completed in about 81.5% of all cadastral rural areas of the country.

The Law no. 9244, date 17.6.2004, “On land protection”[3], was approved much more recently than the law on private land ownership. In the meantime, agricultural land has been continuously harmed by human activity and natural factors. Deterioration of

[1]Statistical year book, 2011. MoAFCP

[2]Official Journal: Year 1998, No 9, Page 321; Publication date 21-04-1998

[3]Official Journal. no. 49, year 2004, pp. 3375

agricultural land has been caused mainly by illegal constructions, enlargement of urban areas which has been detrimental to agricultural land, erosion, salination, damage of river beds, the use of inappropriate agricultural practices, etc.

**Farm size[4]**

About 388 697 rural families or 353 341 farms are actually in rural areas. These farms are characterized by very small surface of agriculturalland (averaging 1.05 ha) and very fragmented (averaging 3.8 parcels/farm), which has a negative impact in the improvement of agricultural productivity and in the efficient development of the agricultural sector in general. Small farms are more common in the mountain and northern areas of the country.

**Progress of agricultural production**[5]

Agricultural production and incomes have followed a significant increasing trend. Livestock production accounts for 52% of the total production of the sector, followed by plant production with about 31% and fruit production with about 17%. Fruit production has had the highest growth rate. A continuous but gradual decrease of the area cultivated with arable crops, especially wheat and tobacco, is noticed as a consequence of the low economic returns and international market competition in the case of wheat, and the lack of domestic processing facilities in the case of tobacco. The number of fruit trees and the areaplanted with vineyards has rapidly increased. This positive trend is also noticed in the surface and production for the vegetables (especially greenhouses) and forage in response to the economic returns to their production and the lack of offer in the market.

In the livestock there is an increase of the numbers of farms with 5–10 calves for beef production, of farms with 11-50 head of cows, of farms with 11-50 head of goats and 500 head of sheep, showing a positive tendency toward agricultural specialization.

**Agro-industry[6]**

At the beginning of 1990, the food industry collected and processed 50- 80% of all agriculture production and also did the marketing of their products. The food industry produced about 42% of the total value produced by industry and employed about 47,000 people. Privatization of these enterprises started in 1992 with the bread, flour, milk processing, alcoholic and non–alcoholic beverage industries. In 2011, there were 2273

[4]Statistical year book, 2011. MoAFCP
[5]Statistical year book, 2011. MoAFCP
[6]Statistical year book, 2011. MoAFCP

enterprises of food industry, where the industry of bread is leading with 1182 factories or 52.0 % of the total, followed by the dairy industry with 334 enterprises, and the flour industry with 145 enterprises. Overall, the food industry sector employs 11282 people.

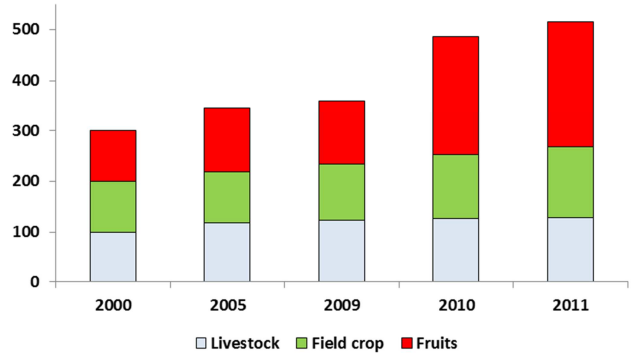



Figure 2. Agriculture Production Trend (in %)
Year 2000 = 100%

*Source: Statistical yearbook, 2011. MoAFCP*

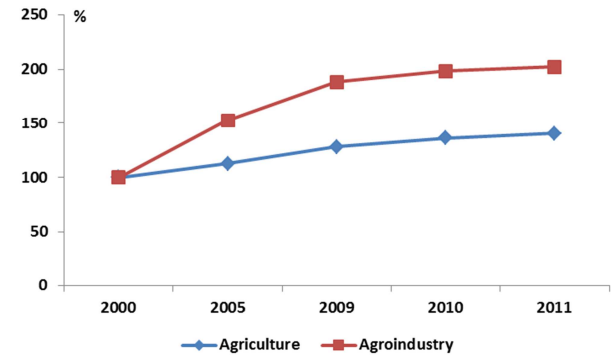



Figure 3.Growth in agricultural and in agro industry
Year 2000 = 100%

*Source: Statistical yearbook 2011 MoAFCP*

Agro industry is an important branch of the agricultural sector and accounts for 24.1% of the internal production of the agricultural sector. This industry has had a considerable and steady development during the last years. Since 2001, the average annual increase is about 7.6%.

**Policies on agriculture and food**

The main policies of the Government of Albania concerning development of agriculture and food are defined in the Agriculture and Food Sectoral Strategy 2007-2013 (AFSS) and in the Government program.

In this framework, the strategic objectives of the agriculture and food Sector for 2007-2013 includes:

1. Sustainable land management, as the main component for the development of sustainable agriculture and in full harmony with it;
2. Increase of employment, income and living standards of farmers and their households;

3. Increase of economic efficiency of the agricultural and agro-processing sector, expressed through increased productivity and product quality;
4. Guarantee higher standards of food safety for the entire population;
5. Improvement of agricultural marketing.

The strategic sectors of development defined in AFSS are:

(i) fruit, olive and grapes production;
(ii) vegetable production;
(iii) ivestock products;
(iv) processing of fruit and vegetables;
(v) processing of grapes, and;
(vi) processing of meat and milk.

Implementation of policies on development of agricultural and food sector is based on the following principles:

- Increase the participatory or inclusive character of the political process in all stages of policy cycle: identification, design, approval, implementation, monitoring and evaluation. Ensure the continuity of the policy cycle, avoiding pauses and breaks, in order to ensure the continuity of agriculture sector development.
- Focus more on direct support, to ensure an impact on critical points, on direct factors, such as technology, growth of agricultural production and quality improvement.
- Pass to a phase of obligatory and standardised monitoring and evaluation of policy and programme impact, as a condition that will not only increase managerial engagement but will also ensure the effectiveness of development programmes.
- Focus attention on demand-driven or market agricultural policies. In the future, policies that aim to manage consumer demand will need to have a special attention in Albania.

In the framework of the above policies defined in the AFSS, supporting measures have started and will continue to be implemented. They are split into two axes:

**Policies related to investment in agriculture or agro-processing:**

- Direct payments in the form of grants or credit for investment in production technologies
- Direct payments in the form of grants for agricultural or agro-processing inputs
- Interest rate subsidy (or credit guarantee) of private loans
- Direct payments or credit to promote and support local initiatives

**Other measures including technical assistance and advisory services to farmers:**

- Rural innovation platforms at regional level.
- Parallel partnerships (associations, producer or marketing groups, local actiongroups).
- Vertical partnerships (farmers and traders or agro-processing manufacturers, who cooperate in joint programmes of trading inputs and outputs).
- Establishment of rules and strengthening of monitoring to eliminate potential monopolistic phenomena in the inputs market.
- Facilitating of licensing and tax burden of traders to increase market competitiveness.
- Establishment of farmer schools.
- Improvement of agricultural techniques and capacities.
- Stronger monitoring capacities of the quality of seeds and seedlings.
- Exchange of local experiences in production technologies, trading and organization of associations.
- Promotion of farmer lobbies at the level of the zone across the country.
- Group discussions to identify roads that will promote agro-tourism and organic products.
- Expansion of good agricultural practices.
- Studies to identify niche markets.
- Technical and/or financial assistance for value-adding activities of farmer products.
- Awareness-raising campaigns.
- Establishment and implementation of standards for agricultural products.
- Improvement in the collection, dissemination, use and publication of statistical information.
- Legal improvements and approximation with the EU legislation.
- Improvement of the market information system.

**Rural Development Policies in Albania**

The main goal of the rural development policies in the Republic of Albania is:

(i) To contribute to the equal development of all rural areas in Albania,

(ii) to improve the qualityof life in rural areas through exploiting human and natural resources and diversifying non-agricultural activities,

(iii) to create new jobs in order to reduce poverty, *and*

(iv) to increase sustainable and balanced rural development.

The MoAFCP in collaboration with other line ministries has prepared the Rural Development Cross-sectoral Strategy which aims at implementing social, economic and environmental policies of a zonal, regional and global character. These policies basically are multidisciplinary in formulation and impacts, multisectoral in application and have a strong territorial dimension.

The main goals of these strategies are as follows:

- Raise competitiveness of agriculture and agro-processing sector supporting restructuring and development of value adding activities (aiming to increase financial value of products).
- Protect and improve the environment through sustainable management of natural resources in rural areas.
- Improve the quality of life in rural areas and diversify varies economic activities through creation of new jobs.
- Development of institutional capacities to plan, manage and effectively coordinate activities in support of rural development.

Measures foreseen for implementation of rural development policies are organized into:

***Axis 1. Raise competitiveness of agriculture, agro-processing and forestry, including the following measures:***

- Modernization and restructuring of agriculture through introduction of new technologies and farm modernization, support farmers to adapt themselves with national and community standards; support improvement of infrastructure and social services, etc;
- Increase of product value and quality through support to farmers involved in thes chemes of product quality improvement, marketing improvement and promotion of products;
- Improvement of forestry and pasture management and increase of forestry products value;
- Increase of employment and improvement of professional qualifications of farmers and rural population;

***Axis 2. Protect culture and environment, including the following measures:***

- Stimulation of multi-functionality of agriculture, rural environment and culture conditions especially in less developed areas;
- Stimulation of development of a sustainable agriculture in harmony with the environment;

- Development of good practices in agriculture and rural business;

***Axis 3. Improve quality of life in rural areas and stimulate diversification of economicactivities, including the following measures:***

- Increase of employment in rural areas through development of non-agricultural economic activities and farm diversification, training of actors in rural areas;
- Improvement of access to different economic and social services in rural areas;

***Axis 4. Participation in rural development processes.***

The budget expenditure for agriculture (including salaries, insurance and other expenditure) has been increasing from year to year. Liberalization of trade for agriculture and agro-food products requires an increased budget to enable domestic producers adapt with new conditions, increase standards of their products and be more competitive.

# Chapter I

## Albania - Policies and Legal Framework in Agriculture
## General view

### Policies towards privatization of agricultural land

Until mid-1991, the agricultural land was 100% owned by the state (total area of 699thousand ha). From August 1991 until August 2008, the reform concerning the ownership of the agricultural land has been fundamental. The reform is based on Law No. 7501, dated 19.7.1991, "On land"[7], Law No. 8053,dated 21.12.1995, "On payment-free transfer of agricultural land to ownership"[8], Law No. 8312, dated 26.3.1998 "On undistributed agricultural land"[9] and other sub-laws to their enforcement.

Members of agricultural cooperatives and employees of state agricultural enterprises and other entities specified in the law benefited agricultural land without payment (for free) from this reform. The agricultural land is distributed (privatized) per family based on the number of its members. The rate of the agricultural land for each inhabitant was subject to the size of the land area available for privatization in proportion to the number of all village inhabitants. About 445,000 families benefited from privatization of agricultural land at an average of 1.2-1.3 ha/family.

Land privatization was conducted by land commissions in each village, setting up in accordance with law provisions, under the monitoring of central and local government structures. As soon as the land was transferred under ownership, the owner of the land was provided with the ownership document (ownership title) labeled "Act of ownership title to land". However, families actually possessing this land are not yet provided with the ownership document in some areas of the country (about 3% of the overall surface privatized). The Law No. 9948, dated 7.07.2008"For reviewing the legal validity of the property title for the agriculture land"[10], amended with Law 10136, date 11.5.2009 "For a change in the Law No. 9948, dated 7.07.2008 "For reviewing the legal validity of title property for the agriculture land"[11], includes a special provision defining the state structures and deadlines for fulfillment of this obligation.

[7]Official Journal no.5, year 1991, page 224
[8]Official Journal no 27, December 1995, page 1179
[9]Official Journal no. 9, April 1998, page 321
[10]Official Journal no. 122, 31 July 2008, p. 5387
[11]Official Journal no no. 86, year 2009, p. 3775

Currently, as a result of the reform carried out during these years, 80% of the general agricultural land surface is transferred to private ownership, and 20% remained state ownership. About 15% or 137,000 ha of the state owned agricultural land is defined by the law as a physical compensation fund for former owners expropriated by the communist system. The rest of the state owned land (85% or 110,000 ha), that is refused by the agricultural families during the privatization process (due to lower fertility and distance from inhabited areas) is transferred under administration of the local government. This surface may be leased or given with concession to national and foreign physical and juridical person, based on relevant law provisions.

For legal consolidation of ownership titles, a special law no. 7843, dated 13.07.1994 "For Immovable Property registration"[12], provided for setting up Local Immovable Property Registration Offices (LIPRO), which are responsible for the registration of all legal ownership titles of immovable assets, including agricultural land. On country level, this registration is so far completed for 2381 cadastral rural areas out of a total of 2920 cadastral rural areas, or 81.5%. The process of first registration in 539 cadastral rural areas and the release of ownership certificates for registered titles remain still to be completed.

The new owners of agricultural land have the rights of inheritance, use and exploitation for their benefits, transactions, leasing, etc... as well as obligations for its good administration and protection.

**Measures aiming at development of agricultural land market**

Measures implemented in this regard have legal and administrative nature.

***(a) Legal measures:***

Purchase of private agricultural land (80% of overall surface) is allowed for national physical and juridical persons and renting is allowed for national and foreign physical and juridical persons for a period up to 99 years (law no. 8337, dated 30.4.1998, "On the ownership of agricultural land, forests, meadows and pastures"[13].

Purchase of state owned agricultural land (20% of the general surface) are not allowed until former owners expatriated by the communist regime are compensated. However, the law allow renting of such lands to national and foreign physical and juridical persons for a period of 99 years, excluding the surface designated for compensation of former owners (the above-mentioned law, no. 8337, dated 30.4.1998, page 442).

[12]Official Journal no 10, 1994, page 443

[13]Official Journal no 12, May 1998, page 442

Rent procedures are regulated by Law no. 8318, dated 1.4.1998, "On renting of state owned agricultural land, forests, meadows and pastures"[14] and Law no. 8312, dated 26.3.1998, "On undistributed agricultural lands"[15], and sub-laws to their enforcement.

Rent procedures are applied through action by the respective boards of leasing. The terms of lease are specified:

(i) up to 10 years, for cultivation of field crops;

(ii) up to 30years, for greenhouses, nursery and livestock activities;

(iii) up to 99 years, for fruit, vineyards and olive-groves. 915 ha of agricultural land are rented so far.

For both types of ownership, private and state, the law does not allow transactions of agricultural land for foreign physical and juridical persons for a period up to 7 years from entry into force of the Stabilization and Association Agreement between Albania and EU Member States.

In general, legal provisions are correctly applied during the process of land privatization and creation of ownership titles. However, there have also been noticed irregularities and wrong applications of legal provisions during the lifetime of this process and the great volume of the work done. The most typical cases are those of ownership benefited by people who are not subject to law, the benefit of land beyond legal provisions defined, overlapping properties, illegal occupation of land, etc., which have caused conflicts of different nature.

For the purpose of their regulation, the Parliament of Albania passed law no 9948, dated7.7.2008, "On examination of legal validity of creation of ownership title on agricultural land"[16] This law aims at verifying irregularities and their legal arrangement within 2011. This legal measure guarantees ownership titles and stimulates development of land market at the same time.

Law no. 9663, dated 18.12.2006, "On concessions"[17] allows the release of agriculturall and concession for a period up to 35 years.

**Rural Development Policie**

Since the Intersectorial Strategy of Rural Development is prepared according to the European Union recommendations of September 2005 and based in the regulation1698/2006 of 20 Septmeber 2005 for Rural Development Support from the

[14]Official Journal no 9, April 1998, page 341
[15]Official Journal no 9, April 1998, page 321
[16]Official Journal no. 122, July 31, 2008, p. 5387
[17]Official Journal no. 150, December 2006, p. 6075

European Agricultural Fund of Rural Development (EAFRD), 32005R1698 (01), 32005R1698(02), 32005R1698 (03), OJ of EU L 277, date 21.10.2005, page 1-40, Celex32005R1698, for Rural Development Support from the European Agricultural Fund of Rural Development (EAFRD), OJ of EU 21.10.2005, MoAFCP is adopting this strategies according to IPARD regulations.

**Rural development programme**.

MoAFCP has finish at the end of September 2011. In the framework of preparing this document four sectorial studies were carried out for wholechain of the meat, milk products, fruits-vegetables and wine and grapes sectors. These studies serve as basis for the preparation of the rural development programme. The preparation of the rural development programme has been assisted by IPA 2008 Project "For the implementation of rural development strategy".

The Rural Development Programme is focused mainly at three supporting measures such as:

(i) investments in farms (according to the article174, CR (EC) No. 718/2007, 12.06.2007, for the implementation of the Council regulation no. 1085/2006 for the pre accession instrument IPA);

(ii) investments in food processing and marketing of agricultural and fishery products (according to the article176 CR (EC) No. 718/2007), and also

(iii) giving technical assistance (according to thearticle 182 and 183 CR (EC) No. 718/2007).

Regarding the measures in investments in agricultural farms, in food processing and marketing of agricultural and fishery products, the National Plan of Rural Development will aim at:

(i) compliance with European standards for food safety, environmental protection, animal and plant health, animal breeding and taking care of them in agricultural farms and processing units;

(ii) increase of efficiency and concurrence in agricultural farms and processing units to participate in the future in the European market.

**Legal Framework**

The Law on Agriculture and Rural Development (No.9817 date 21.10.2007[18]) for the first time opens the perspective of the implementation of similar policies in Albania to the European ones (CAP) for the agriculture and rural development . The law defines

[18]Official Journal no. 148, 2007, p. 4355

the objectives, instruments and programming policies for agriculture and rural development. The annual supporting schemes applicable from 2007 are based in the Law No. 10025, date 27.11.2008 “For the state budget of year 2009”, the programme for the agriculture state support. The allocation of funds is done with a special decision of the Council of Ministers and joint guidelines of the two line Ministries, MoAFCP and Ministry of Finance.

**General market policies for agricultural and food products**

The main characteristics of the agricultural policies, including market measures, are defined in a series of strategic documents and legal and sub legal acts that fullfil the general regulatory framework of the policies for this sector. Among most important documents defining and shaping the agricultural policies and regulatory framework of the agriculture are:

(i) Sectorial Strategy of the Agriculture Development 2007-2013 (approved by the CMD No. 924, date 14.11.2007[19]);
(ii) legal acts regarding the obligations of Albania towards the World Trade Organization,
(iii) the stabilization-association agreement between Albania and European Community,
(iv) the free trade agreement with the CEFTA countries;
(v) the free trade agreement with Turkey;
(vi) the free trade agreement between Albania and CEFTA.

The Objective of the Sectorial Strategy of Food and Agriculture 2007-2013 are:

(i) the stable management of the land, as an important component of the sustainable agricultural development;
(ii) increase of employment, of the incomes and of the life level of the farmers and their families;
(iii) the growth of the economic effectiveness of the agricultural sector and the agro-processing one, mainly expressed through the increase of productivity and product quality;
(iv) the improvement of food safety standards, and;
(v) the improvement of the marketing of food and agricultural products.

In this framework, the special measures applied in implementation of the agricultural policies are defined based in:

[19]Official Journal no. 192, December 2007, page 6149

(i) Law No. 9817, date 22.10.2007 "For the Agriculture and Rural Development"[20], approved by the Albanian Parliament;
(ii) Annual decisions of the Council of Ministers regarding the supporting schemes in agriculture and rural development;
(iii) Law on the state budget, *and also*,
(iv) Different funding based in bilateral and multilateral agreements; etc.

The trade regime for food and agricultural products in Albania developed during the transition years has been guided by the process of economic opening and integration of Albania in global markets and economy, the agreement with WTO and free trade agreements with different countries.

All custom duties for agricultural products, processed agricultural products (PAP), fish and fishery sub-products, classified in the chapter 1-24 of the Harmonized System of commodity classification (HS-2009) are published in the Customs Code.

The custom taxes are defined in the customs legislation of the Republic of Albania (Customs Code, Law No. 9981 date 08.09.2008 "For the approval of the levels of customs tariffs"), amended with Law 10098, date 19.03.2009[21].

For all products, local or imported, it is applied a fixed VAT of 20%. The reimbursement of VAT for the export of agricultural products (when the sur plus exceeds the amount of 3057 Euro) is applied in accordance with the law for the VAT (Law No. 7928, date 27.04.1995 "For the tax of added value", amended with Law no.9712 date 16.04.2007[22].

There are no measures applied for:

(a) production quotas;
(b) export taxes;
(c) bank guarantees,
(d) tariff quotas, outside the free trade agreements, *and*
(f) measures of direct intervention in markets (public purchase, public collection/ storage of agricultural products, etc).

With Kosovo, all agricultural and food products are liberalized and no tariffs are applied.

**The licence and control of the imports and exports system**

Albania is using a licensing system for imports and exports of agricultural and food products, mainly to guarantee food safety, for the products:

(i) live animals, skins, and biological materials used for animal insemination and

[20]Official Journal no. 148, date 6.11.2007, page 4355
[21]Official Journal no. 46, date 23.04.2009, page 2279
[22]Official Journal no. 54 date 12.5.2007 page 1419

veterinary medicines and vaccines;

(ii) plant protection products;

(iii) fauna and flora;

(iv) fish and fish products.

This licensing system of Albania has been notified to WTO (document G/LIC/N/3/ALB/2of WTO.

All imports and exports are subject to physical checks. The customs office, for the physical checks, use risk analysis method. Except physical controls during the passage of products in the customs, other checks are performed regarding the elements of foodsafety. The checks are carried out by the food inspectors, veterinary inspectors and phytosanitary inspectors, part of the MoAFCP structures. The procedure of taking the samples and testing the products is used to perform these checks, for which a fixed fee is applied for each taken and tested sample.

**Horizontal regulation and marketing requirements for livestock and agricultural products**

The horizontal regulation and marketing requirement were develop based on Law No. 9863, date28.1.2008 "For the Food"[23] and its sub-legal acts, aiming to ensure the highest level of the protection of the public health and consumers' interests.

Other legal acts with specific horizontal requirements on production, processing, labelling and marketing of some food products are:

(i) Law No. 9426 date 06.10.2005 "For Livestock Breeding"[24] amended, establishes breeding conditions and technologies, breeding improvement methods, trading and marketing of breeding materials as well as the production and marketing of animal feed;

(ii) Law No. 8702, date 01.12.2000 "For the identification and registration of animals and livestock farms"[25] defines the responsible structures for animals identification and livestock farm registration and the costs of this process;

(iii) Law No. 9308, date 4.11.2005 "For the veterinary service and inspectorate"[26] amended, mainly regulates the organization, the functioning of veterinary inspection, and the application of sanitary-veterinary measures for the products of animal origin, raw materials, food, pastures and water for the animals as well as the environment protection from the infections, toxics and pollutions with harming

[23]Official Journal no. 17, date 18.2.2008, page 581
[24]Official Journal no. 78, date 28.10.2005, p. 2575
[25]Official Journal no. 47, date 01.12.2000, p. 2059
[26]Official Journal no. 97, date 17.12.2004, p. 6603

consequences for animal and humans;

(iv) Regulation of the Minister of Agriculture No. 5 dated 10.03.2000 "For the determination of the maximum authorized level for the harmful substances, pesticides wastes, and other additional substances of the animal feed"

(v) Order No. 302, date 29.07.2005 “For the Approval of the regulation “On the foodstuff hygiene””[27] (approximated with the Directive 93/43/EEC “On the foodstuff hygiene, CELEX 31993D0043).

(vi) Order No. 257, date 24.05.2006 “For the approval of the regulatation for the accomplishment of state control of foodstuff”[28] (approximated with the Directive 89/397/EEC “For the accomplishment of state control of foodstuff” CELEX31989L0397).

(vii) Order No. 4, date 30.04.2009 “For the approval of the regulation “On microbiological criteria” (adopted from the Regulation 2073/2005/EC “On microbiological criteria for foodstuff”,CELEX 32005R2073)[29].

General rules for labelling of all food products are defined in the Law No.9863, date 2008 ”For the Food” as well as in the CMD No. 1344, date10.10.2008 “For the labelling of food products”[30]. The requirements for the labelling of food products generally packaged or unpackaged are defined in Food Law, as well the CMD No. 1344, date 10.10.2008 “For the approval of the rules “For the labelling of food products”. According to the law, the food products labels should be written in Albanian language, be distinct, legible, and comprehensible for the consumers.

**Veterinary Service – General legal framework**

In Albania, the basic legal act regulating veterinary service and inspection in the field of animal health protection is Law no. 10465, date 29.09.2011″On Veterinary Service and Inspectorate”[31]. It regulates the organization, function and funding of veterinary service and inspection, and the rights and responsibilities of the Veterinary Administration.

***Law no. 8702, date 01.12.2000 "On the System of Animal Identification and Registration”*** [32] . Its aim is to regulate animal movement through their individual identification, registration of livestock farms and provision of special registration number; to provide rapid and accurate data exchange on animal location for veterinary,

[27]Official JournalL 16, date 25.1.1993, p. 51–52
[28]Official Journal L 186, date 30.6.1989, p 23-26
[29]Official JournalL 338, date 22.12.2005, p. 1–26.
[30]Official Journal no.160, year 2008, p. 7855
[31]Official Journal no 143, date 23.10.2011, p.6435
[32]Official Journal no 47, date 04. 01.2001

zootechnical and statistical purposes; as well as to regulate the relations between the responsible state institutions and livestock farm owners.

***Decision of the Council of Ministers 320, date 19.03.2008 "On Animal Identification System and Registration of Livestock Farms"***[33].This decision provides legal support for implementing Identification and Registration System in order to ensure control on animal movement, to monitor epizootic situation, food safety, and consumer protection. It satisfies one of the conditions to implement a controlled procedure on export - import of live animals and products.

**Food Safety– legal tools**

The administration of the food safety is organized according to the territorial division of the country.

The territory of the Republic of Albania is divided in 12 regions as follows:Tirana, Durres, Shkodra, Lezha, Kukes, Dibra, Fier, Elbasan, Korça, Berat, Vlora,Gjirokastra. The regions are administrative units organized in 65 municipalities and 309 communes.

Albanian legislation governing food safety consists in the following acts:

1. ***Law no. No 9863 of 28 January 2008 "On food", as amended by Law no. 10137 date 11.5.2009 "On some changes in existing legislation for licenses, autorization and permitions in Republic of Albania"***[34]

This Law has partly been adjusted to Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the basic principles and requirements of food safety. Its purpose is to lay down a legal base in order to ensure a high level of human life protection and protection of consumers' interests, and it provides for:

a) general principles and requirements for hygiene and food and feed safety;
b) obligations for food and feed business operators, and food and feed hygiene and safety;
c) general requirements for food quality;
d)general requirements for registering the geographical indicators, and describing thecontrolled origin;
e) general requirements concerning labelling of food and feed;
f) general requirements for placing on the market of food and feed;
g) general requirements for placing on the market of new food and feed;

[33]Official Journal no 49, date 11.04.2008
[34]Official Journal no 86, date 12.6.2009, p. 3775

h) system for officially controlling food and feed;

i) system of authorised testing and reference laboratories;

j) crisis and emergency management;

k) setting up of the National Food Authority;

l) responsibilities of the National Food Authority for food and feed produced in the Republic of Albania, or imported to and placed on the market in the Republic of Albania.

This Law is applicable to primary production and to all production stages, processing and distribution of food and feed. It is not applicable to food produced, prepared, processed and collected for personal use, which are not intended to be placed on the market.

The Law "On food" serves as the legal base for the preparation of secondary legislation regulating approximation of the Albanian legislation to the EU legislation

***2. Law no. No 9441 of 11 November 2005 "On collecting, processing and placing on the market of raw milk and milk-based products".***

This Law was enacted based on Council Directive 92/46/EEC laying down health rules for the production and placing on the market of raw milk, heat-treated milk and milk-based products. The purpose of this Law is to ensure:

a. production of raw milk on farms, the collection, processing and placing on the market of raw milk, milk intended for human consumption, and milk-based products, the production and placing on the market of quality controlled milk and milk-based products, in compliance with the requirements and standards for the internal and external market;
b. checking on provision of permits to the milk producing farms and the milk collection, standardisation and processing centres;
c. consumer safety concerning milk and milk-based products.

This Law no is applicable to:

a. producing farms, centres for the collection, standardisation and processing of milk and milk-based products;
b. raw milk, unprocessed milk, milk intended for consumption, milk-based products and additives;
c. packaging, labelling, storage, transport and control of milk and milk-based products intended for human consumption.

**3. Law no. No 8443 of 21 January 1999 "On viniculture, wine and other grape-derived products"[35].**

**4. Law no. No 8944 of 19 September 2002 "On the production, description and placing on the market of the olive oil"[36].**

**Zoo-technical legislation**

Issues regarding zoo-technical services in the Republic of Albania are regulated by legal acts and subordinate legal acts.

The main legislation governing the institutional framework for stockbreeding in Albania includes:

***1. Law no. No 9426 of 6 October 2005 "On stockbreeding"***[37]as amended, has partly been brought into line with:

- Directive 91/174/EEC of 25 March 1991 laying down zoo-technical and Pedigree requirements for the marketing of pure-bred animals. CELEX 31991L0174 *OJ L 85,5.4.1991, p. 37–38*
- Directive 88/661/EEC of 19 December 1988 on the zoo-technical standards applicable to breeding animals of the porcine species. CELEX 31988L0661*OJ L 382, 31.12.1988,p. 36–38*
- Directive 94/28/EC of 23 June 1994 laying down the principles relating to the zootechnical and genealogical conditions applicable to imports from third countries of animals, their semen, ova and embryos. CELEX 31994L0028 *OJL 178, 12.7.1994, p.66–68*
- Directive 77/504/EEC of 25 July 1977 on pure-bred breeding animals of bovine species. CELEX 31977L0504*OJ L 206, 12.8.1977, p. 8–10*

This law was designed to specify the farming conditions and practices for farm animal breeding, animal breeding methods and technologies, feedstuffs, requirements for the designing and adoption of breed-specific programmes, conservation of genetic variability, as well as gene funds and autochthonous breeds, professional services in livestock farming, animal genetic resources data banks, animal breeding organisations, training on livestock farming, market and marketing of breed material, and zoo-technical inspection. This Law is applicable to the bovine animals, buffalos, ungulate animals, pigs, sheep, goats, rabbits, poultry, bees, silkworm, and wildlife subject to breeding.

[35]Official Journal no 3, date 22.2.1999, p.21
[36]Official Journal no 67, date 31.10.2002, p. 1884
[37]Official Journal No 78 of 28.10.2005

***2. Regulation No 2 of 22 July 2008 "On farm animal reproduction, and production and placing on the market of breed specific material"***

has partly been adjusted to the following Directives[38]:

- Directive 77/504/EEC of 25 July 1997 on pure-bred breeding animals of the bovine species. CELEX 31977L0504*OJ L 206, 12.8.1977, p. 8–10*
- Directive 96/509/EC of 18 July 1996 laying down pedigree and zoo-technical requirements for the importation of semen of certain animals. .(CELEX31996D0509*OJ L 210, 20.8.1996, p. 47–52*)
- Directive 96/510/EC of 18 July 1996 laying down the pedigree and zootechnical certificates for the importation of breeding animals, their semen, ova and embryos. CELEX31996D0510*OJ L 210, 20.8.1996, p. 53–67*
- Directive 89/361/EEC of 30 May 1989 concerning pure-bred breeding sheep and goats. CELEX 31989L0361 *OJ L 153, 6.6.1989, p. 30–31*
- Directive 91/174/ EEC of 25 March 1991 laying down zoo-technical and pedigree requirements for the marketing of pure-bred animals CELEX31991L0174 *OJ L 85, 5.4.1991, p. 37–38*

***3. Regulation No 3 of 5 August 2008 "On providing certificates for pure-breed breeding for the bovine species, sheep, goats, equidae, pure-bred breeding pigsand hybrid breeding pigs, their semen, ova and embryos"***[39] has partly been adjusted to the following Directives:

- Directive 2005/379/EC of 17 May 2005 on pedigree certificates and particulars for pure-bred breeding animals of the bovine species, their semen, ova and embryos. CELEX 32005D0379*OJ L 125, 18.5.2005, p. 15–17*
- Directive 90/258/ECC of 10 May 1990 laying down the zoo-technical certificates for pure-bred breeding sheep and goats, their semen, ova and embryos. CELEX31990D0258 *OJ L 145, 8.6.1990, p. 39–47*
    - Directive 89/503/EEC of 18 July 1989 laying down the zoo-technical certificate of pure-bred breeding pigs, their semen, ova and embryos. CELEX 31989D0503 *OJ L247, 23.8.1989, p. 22–30*
- Directive 89/506/EEC of 18 July 1989 laying down the certificate of hybrid breeding pigs. CELEX 31989D0506 *OJ L 247, 23.8.1989, p. 34–42*
- Directive 96/79 of 25.1.1996 on zoo-technical certificates for registered equidae, their semen, ova and embryos. CELEX 31996L0079 *OJ L 19, 25.1.`96, p.41–49*

[38]Official Journal no 162 of 22.10. 2008
[39]Official Journal no 162 of 22.10. 2008

***4. Regulation No 1 of 4 March 2009 "On standards for the breeding of pigs and laying hens"*** has partly been adjusted to the following Directives:

- Directive 1999/74/EC of 19 July 1999 laying down minimum standards for the protection of laying hens. CELEX 31999L0074 *OJ L 203, 3.8.1999, p. 53–57*
- Directive 91/630/EEC of 19 November 1991 on minimum standards for the protection of pigs. CELEX 31991L063 *OJ L 340, 11.12.1991, p. 33–38*

***5. Regulation No 4 of 9 September 2008 "On standards for the breeding of calves"*** has partly been adjusted to the following Directive:

- Directive 91/629/EEC of 19 November 1991 on minimum standards for the protection of calves. CELEX 31991L0629 *OJ L 340, 11.12.1991, p. 28–32*

**6**. ***Regulation No 422 of 17 December 2009 "On the requirements concerning registration in herd - and flock - books for pure - bred breeding bovine species, sheep, goats, equidae, pure – bred breeding pigs and hybrid breeding pigs"*** has partly been adjusted to the following Directives:

- Directive 84/419/EEC of 19 July 1984 laying down the criteria for entering cattle into herd-books. CELEX 31984D0419 *OJ L 237, 5.9.1984, p. 11–12*
- Directive 89/502/EEC of 18 July 1989 laying down the criteria governing entry in herd-books for pure-bred breeding pigs. CELEX 31989D0502 *OJL 247, 23.8.1989,p. 21–21*
- Directive 89/505/EEC of 18 July 1989 laying down the criteria governing entry in registers for hybrid breeding pigs. CELEX 31989D0505 *OJ L 247, 23.8.1989 p.33*
- Directive 90/255/EEC of 10 May 1990 laying down the criteria governing entry in flock-books for pure-bred breeding sheep and goats. CELEX 31990 D0255*OJ L 145,8.6.1990, p. 32–34*
- Directive 96/78/EC of 10 January 1996 laying down the criteria for entry and registration of equidae in stud-books for breeding purposes. CELEX 31996D0078*JL 19, 25.1.1996, p. 39–40*

***7. Decision No 1708 of the Council of Ministers of 29 December 2008 "On implementing programmes designed for the in-situ conservation of autochthonous sheep and goat breeds"***[40]

This Decision refers to Commission Regulation (EC) No 1974/2006 of 15 December for the application of Council Regulation (EC) No 1698/2005 CELEX 32005R1698 on

[40]Official Journal no 208, December 2008

support for rural development by the European Agricultural Fund for Rural Development (EAFRD).

***8. Decision No 1634 of the Council of Ministers of 17 December 2008 "On laying down the manner and procedures governing financial support for conservation of the genealogical reserve of the autochthonous breed of buffalo"[41].***

[41]Official Journal no 198, December 2008

# Chapter II

## International and communitary legal framework relevant to conservation and management of farm animal genetic resources
## A synthesis on Major instruments

### Background

### FAO - Farm Animal Genetic Resources – Roles, Values, Risk of Erosion

The contribution of domestic animals to food production is perhaps their most widely recognized role. Domestic animals, directly and indirectly, account from 30 to 40 percent of the total value of global food and agricultural production. They are an important component of food security and of human livelihoods in most developing countries, serving as sources of food (milk, meat, eggs), shelter and protection (fiber, hides), power (animal draught, transport), fuel and fertilizer (manure), savings (cash value of animals) and cultural values.

Globally, the demand for animal products, such as milk, meat and eggs, is increasing and is expected to continue growing in the future. However, animal genetic resources are rapidly eroding as a result of, among other factors, human population and development pressures, the rapid transformation of traditional agricultural systems, imports of exotic breeds and inappropriate cross-breeding, and policies disadvantaging pastoralists and low external input production systems. The greatest impact of the loss of AnGR may result in the reduction in overall food security and a reduced flexibility in responding to change.

It has been estimated that loss of animal genetic resources has been greatest in developed countries, where there was a tendency to concentrate on a few high output breeds. The same is also happening at an alarming rate in developing countries which have limited resources for designing and implementing conservation programms and where traditional agricultural systems are being rapidly transformed[42]. This transformation often includes the indiscriminate use of exotic animal genetic resources, and the loss of indigenous livestock breeds.

The Global Databank for Farm Animal Genetic Resources contains more than 9,000 breeds of more than 30 mammalian and avian species. In Europe, half of the breeds in

[42] Antonella Ingrassia, A., Manzella, D., Martyniuk, E.2005. The legal frameworkfor the management ofanimal genetic resources. FAO Legislative Study 89, p.8

existence at the turn of the last century are now extinct and a high percentage of the remaining breeds (for which population data are available) are in danger of disappearing over the next 20 years. In North America, over one third of livestock and poultry breeds are rare or in decline.

Much less is known about the status of breeds in the developing world, where there is greater diversity. A recent survey undertaken by FAO, has determined that many breeds of livestock have already become extinct, and that 35 percent of all remaining mammalian breeds and 63 percent of avian breeds, reported on an on-going basis by countries to FAO, are currently at risk of extinction[43].

Despite the valuable efforts of individuals, governments and NGOs, FAnGR continue to decline. In order to prevent further loss, particularly with regard to indigenous animal breeds, it is important to acknowledge their vital role for food security, rural income generation, social cohesion and cultural identity. Local, national and global actions are required to conserve such resources. These actions should be based on a comprehensive framework, encompassing technical, social, economic, institutional and legal aspects. Collaboration among government agencies and other stakeholders (e.g. NGOs) will be required. Countries are required to take policy decisions and consequent actions on a number of issues, such as:

(1) the best use of both locally-adapted and exotic FAnGR;

(2) how to achieve the sustainable use of their production systems;

(3) which genetic resources to conserve; and

(4) what are the critical capacity building needs in the FAnGR sector..

There is a need for action at both the international and national levels. In both respects, legal elements are significant. …. At the national level, well-designed laws, looking at AnGR as a whole or focusing on single aspects of their management, may help to protect rights and define responsibilities for environmentally responsible behavior [44].

**FAO - Global Strategy for the Management of Farm Animal Genetic Resources**

FAO initiated the development of a *Global Strategy for the Management of Farm Animal Genetic Resources* (Global Strategy) in 1993, based on the recognition of the significant contribution that animal genetic resources make towards global food security

[43]FAO, 2001. The First report on the State of the World's Animal Genetic Resources for Food and Agriculture: A Contribution to the Implementation of the Agricultural Biological Diversity Programme of Work under the Convention on Biological Diversity, Document submitted at the 7th Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice of the CBD, Montreal 12-16 November 2001 (available at www.ukabc.org).

[44]Ingrassia, A., Manzella, D., Martyniuk, E.2005. The legal frameworkfor the management ofanimal genetic resources.FAO Legislative Study 89, p.9-10

and community identity, the accelerating decline of these resources and the poor state of current management.

The FAO Commission on Genetic Resources for Food and Agriculture (CGRFA) started the intergovernmental process for developing the strategy in 1994. The 1995 deliberation of FAO's Governing Body broadened the Commission's mandate to cover all components of biodiversity relevant to food and agriculture (including animal genetic resources) and instructed it to begin implementation of same.

In the Seventh Session of the CGRFA in May 1997, a subsidiary Intergovernmental Technical Working Group on Animal Genetic Resources (ITWG-AnGR) was established to address issues relevant to the conservation and sustainable use of AnGR for food and agriculture. The FAO Global Strategy emphasizes the need to ensure an effective and adequate response at the global level to enhance awareness of the many roles and values of animal genetic resources. It provides a framework for local, national, regional and global efforts to make better use of, develop and conserve these resources through policies, strategies and actions. It mobilizes the financial support necessary to develop and implement the Strategy and facilitates and coordinates the activities of several independent organizations that operate for sustainable agricultural and rural development.

The Global Strategy aims to assist countries in developing capacity to manage their AnGR for food and agriculture, mainly through planning sustainable and cost-effective livestock production systems. It refers to conservation, which should be cost-effective and focused on farmers' interests. The Global Strategy aim to be a key element in country efforts to use and conserve biodiversity, particularly global agrobiodiversity, in a sustainable manner. Accordingly, it has been designed to complement work under way to implement other international agreements, most notably the Convention on Biological Diversity.

The Global Strategy consists of several inter-related components and elements.The major components are:

- intergovernmental mechanisms to ensure direct government involvement and continuity of policy advice and support;
- a planning and implementation structure, providing the enabling framework for country action and regional and global support;
- a technical programme of work, aimed to support effective management of AnGR at the country level; and
- reporting and evaluation mechanisms to provide the critical data and

information required for guidance, cost-effective planning and action, as well as to report on the state of diversity and the state of country capacity in the implementation of the Global Strategy

**FAO - Global Plan of Action for Animal Genetic Resources *and* the Interlaken Declaration**

The *Global Plan of Action* is the culmination of an extended process involving the participation of 169 countries. It was adopted by 109 country delegations at the International Technical Conference on Animal Genetic Resources, held in Interlaken, Switzerland, from 3 to 7 September 2007. They also adopted the *Interlaken Declaration on Animal Genetic Resources,* by which they confirmed their common and individual responsibilities for the conservation, sustainable use and development of animal genetic resources for food and agriculture; for world food security; for improving human nutritional status; and for rural development[45]. Referring to the aims, the *Global Plan of Action for Animal Genetic Resources* [46], is as one of the more important work international document in the frame of conservation and sustainable use of biodiversity in animals of the farm.

In *Global Plan of Action for Animal Genetic Resources* are listed four Strategic Priority:

[45]Global Plan of Actionfor Animal Genetic Resources*and the* Interlaken Declaration. FAO,Roma. 2007

[46]The main aims of the *Global Plan of Action for Animal Genetic Resources* are:

- to promote the sustainable use and development of animal genetic resources, for food security, sustainable agriculture, and human well-being in all countries;
- to ensure the conservation of the important animal genetic resource diversity, for present and future generations, and to halt the random loss of these crucial resources;
- to promote a fair and equitable sharing of the benefits arising from the use of animal genetic resources for food and agriculture, and recognize the role of traditional knowledge, innovations and practices relevant to the conservation of animal genetic resources and their sustainable use, and, where appropriate, put in place effective policies and legislative measures;
- to meet the needs of pastoralists and farmers, individually and collectively, within the framework of national law, to have non-discriminatory access to genetic material, information, technologies, financial resources, research results, marketing systems, and natural resources, so that they may continue to manage and improve animal genetic resources, and benefit from economic development;
- to promote agro-ecosystems approaches for the sustainable use, development and conservation of animal genetic resources;
- to assist countries and institutions responsible for the management of animal genetic resources to establish, implement and regularly review national priorities for the sustainable use, development and conservation of animal genetic resources;
- to strengthen national programmes and enhance institutional capacity in particular, in developing countries and countries with economies in transition – and develop relevant regional and international programmes; such programmes should include education, research and training to address the characterization, inventory, monitoring, conservation, development and sustainable use of animal genetic resources;
- to promote activities aimed at raising public awareness and bringing the needs of sustainable use and conservation of animal genetic resources to the attention of concerned governments and international organizations.

Global Plan of Actionfor Animal Genetic Resources*and the* Interlaken Declaration. pp. 10-11. FAO,Roma. 2007

**Strategic Priority Area 1: Characterization, Inventory and Monitoring of Trends and Associated Risks**

The actions provide a consistent, efficient and effective approach to the classification of animal genetic resources, and to assess trends in and risks to animal genetic resources.

**Strategic Priority Area 2: Sustainable Use and Development**

The actions are to ensure sustainability in animal production systems, with a focus on food security and rural development.

**Strategic Priority Area 3: Conservation**

The actions focus on steps needed to preserve genetic diversity and integrity, for the benefit of current and future generations.

**Strategic Priority Area 4: Policies, Institutions and Capacity-building**

The actions directly address the key questions of practical implementation, through coherent and synergistic development of the necessary institutions and capacities.

Following the Strategic Priority areas, in *Global Plan of Action* are listed different strategic priorities.

In the context of our research the Strategic Priority 20, "Review and develop national policies and legal frameworks for animal genetic resources" is important to develop, because: "A range of policies and legal instruments have direct or indirect effects on the use, development and conservation of animal genetic resources. These instruments oftenpursue different objectives, such as economic development, environmental protection, animal health, food safety, consumer protection, intellectual property rights, genetic resources conservation, and access to and equitable sharing of benefits arising from the use of animal genetic resources. Enhanced coherence between these instruments and policies is needed, without compromising their objectives, or the key objective of food security, and taking into account the distinctive features of animal geneticresources that need distinctive solutions. Means for access and benefit-sharing need to be taken into account"[47]. To carried out the objectives of this Strategic Priority, in Global Plan of Action are listed the different actions[48]

[47]Global Plan of Actionfor Animal Genetic Resources*and the* Interlaken Declaration. p.31-32 FAO,Roma. 2007

[48]1. Periodically review existing national policies and regulatory frameworks, with a view to identifying any possible effects they may have on the use, development and conservation of animal genetic resources, especially with regard to the contribution and needs of local communities keeping livestock.

2. Consider measures to address any effects identified in reviews of policy and legal frameworks. Measures may include policy or legislative changes, or adjustments at the level of implementation, taking into account the need to balance the goals and objectives of the relevant legal instruments and policies, and the interests of different stakeholders.

3. Encourage consistency of national law and policies concerning animal genetic resources with relevant international agreements, as appropriate.

### The international framework: major instruments

There are no comprehensive international regulations or policies that specifically address the management, sovereignty, ownership and benefit sharing for FAnGR[49]. It has been noted that “FAnGR lag behind plant genetic resources at the international level” and there are also very few countries that have policy frameworks explicitly for managing FAnGR among other genetic resources. There are, however, several international treaties with a general scope applying to FAnGR[50].

### Legally binding instruments

### The Convention on Biological Diversity (CBD)

Opened for signature at the Earth Summit in Rio de Janeiro in 1992, and entering into force in December 1993, the Convention on Biological Diversity is an international treaty for the conservation of biodiversity, the sustainable use of the components of biodiversity and the equitable sharing of the benefits derived from the use of genetic resources. With 193 Parties, the Convention has near universal participation among countries. The Convention seeks to address all threats to biodiversity and ecosystem services, including threats from climate change, through scientific assessments, the development of tools, incentives and processes, the transfer of technologies and good practices and the full and active involvement of relevant stakeholders including indigenous and local communities, youth, NGOs, women and the business community.

Although not focussing on animal genetic resources as such, it does cover the complete range of biological diversity including agro-biodiversity and its different sectors. Article 2 of the Convention further defines genetic resources as "genetic material of actual or potential value" meaning “any material of plant, animal, microbial or other origin, containing functionalunits of heredity”.

The cornerstone of the Convention is the principle of the sovereign right of states to exploit their own genetic resources (Art.3), pursuant to their own environmental policies, and their responsability to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of

4. Ensure that relevant research results are taken into consideration in the development of national policies and regulations on animal genetic resources.
Global Plan of Actionfor Animal Genetic Resources*and the* Interlaken Declaration. p. 32 FAO,Roma. 2007

[49]Gibson, J.P. and Pullin, S.V. 2005.Conservation of Livestock and FishGenetic Resources.Gibson, J. P. and Pullin, S. V. Science Council Secretariat, FAO.

[50]The Convention on Biological Diversity, the Agreement on Trade-Related Intellectual Property Rights under the World Trade Organisation and the patent system as maintained by a number of agreements under the World Intellectual Property Organisation, the WIPO, ect..

national jurisdiction[51]. These principles apply to AnGR as well.

The three objectives of the Convention, as set out in Article 1, are:

(i) The conservation of biological diversity,

(ii) The sustainable use of its components, and

(iii) the fair and equitable sharing of the benefits arising from the utilization of genetic resources.

The need for policy development and integration is acknowledged in the CBD, and governments are requested to develop national strategies on biodiversity (Art. 6a), and to integrate "the conservation and sustainable use of biological diversity into relevant sectoral and cross-sectoral plans, programmes and policies" (Art. 6b)[52]

The benefit-sharing dimension of the third objective of the CBD, which is "the fair and equitable sharing of the benefits arising out of the utilization of genetic resources" as stated above, includes appropriate access to genetic resources and appropriate transfer of relevant technologies, taking into account all rights to those resources and technologies, as well as funding.

Under the Convention, legislative, administrative or policy measures are required in order to share bilaterally in a fair and equitable manner, the results of research and development, and the benefits arising from the commercial and other utilization of genetic resources.

Furthermore, the Convention extends the benefit-sharing dimension to include utilization of the knowledge, innovations and practices of indigenous and local communities.

With regard to access to genetic resources, Art. 15 of the CBD recognizes the sovereign rights of States over their natural resources, and it states that the access is subject to national legislation (Art. 15.1). Access is to be granted on mutually agreed terms (Art. 15.4), therefore through bilateral agreements. This implies that both supplier and recipient of genetic material must agree on the terms and conditions of the transfer, and that, unless otherwise determined by that Party, prior informed consent of the Contracting Party providing the genetic resources applies (Art. 15.5). The legal provisions in such a bilateral agreement can be taken to mean that the provider of genetic resources must be fully informed in advance by the access-seeking party about the objectives, as well as the economic and environmental implications of such access[53].

[51] Ingrassia, A., Manzella, D., Martyniuk, E.2005. The legal frameworkfor the management ofanimal genetic resources. FAO Legislative Study 89, p.11

[52]"The legal framework for the management of animal genetic resources". Background Study Paper no. 24.CGRFA, FAO, November , 2004

[53]Secretariat of the Convention on Biological Diversity (2004): Access and benefit sharing as related to genetic resources (Article 15). UNEP/CBD/COP/7/L28, 18 pp.

The CBD foresees the necessity of legislative, administrative or policy measures to provide for fair and equitable sharing of the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources (Art. 15.7).

The relationship between biological resources and intellectual property rights is clearly indicated in Article 16, which states that contracting parties shall cooperate to ensure that such rights are supportive of, and do not run counterto, the Convention's objectives. The relationship between IPRs, benefit sharing,and conservation and sustainable use of biological diversity, is an issue which has not yet found a specific answer at the international level. The issue raises concerns among policy-makers at the national level, especially indeveloping countries, where the rationale of IPRs, which is to reward the intellectual contribution to innovation as an individual process through amonopoly granting ownership and control of knowledge, is often perceived to be in tension with the CBD objectives.

The “Convention on Biological Diversity” (CBD) was accessed by Albania in 1994. Albania is a party of Convention on Biological Diversity since 10.11.1996.

**The Biosafety Protocol to the CBD**

The Cartagena Protocol on Biosafety is a subsidiary agreement to the Convention. It was adopted in January 2000 by the Conference of the Parties to the Convention on Biological Diversity and came into force on 11 September 2003. To date, 166 countries plus the European Union have ratified the Cartagena Protocol. It seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology (LMOs)[54]. It applies to the transboundary movement, transit, handling and use of all living modified organisms that may have adverse effects on the conservation and sustainable use of biologicaldiversity, as well as risks to human health.

The Protocol establishes an advanced informed agreement (AIA) procedure to ensure that countries are provided with the necessary information to take decisions before agreeing to the import of such organisms into their territory (art. 7). The purpose of this procedure is to ensure that recipient countrie have both the opportunity and the capacity to assess risks that may be associated with the LMO before agreeing to its import. The Biosafety Protocol also sets forth requirements for the handling, transportation, packaging and identification of biotechnology-derived agricultural

[54] The Protocol defines LMOs as "any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology", where living organism means "any biological entity capable of transferring or replicating genetic material, including sterile organisms, viruses and viroids".

commodities destined forfood, feed or processing. Each party to the Protocol has the obligation to take the necessary measures to ensure that LMOs are handled, packaged and transported under conditions of safety, taking into consideration relevant international rules and standards. Commodities, including animal products, shall be identified with the words "may contain" living modified organisms (art. 18).

The Protocol reserves the right of parties to take decisions on imports based on the precautionary principle, in relation to both LMOs to be introduced into the environment and LMO-FFPs. It states that lack of scientific certainty regarding the extent of potential adverse effects of an LMO, shall not preventan importing party from taking a decision with regard to the import of that LMO in order to avoid or minimize such potential adverse effects. Socio economic considerations arising from the impact of LMOs on biodiversity may also be taken into account when taking decisions with regard to import.

The Protocol covers LMOs only, thus living modified animals, including embryos. However, it covers neither animal products (e.g. meat, eggs, milk) nor semen/ ovocytes of transgenic animals.

The elements of the Protocol related to risks to biodiversity as well as those covering risks to human health may be of relevance to the management of Animal Genetic Resources (AnGR). The potential to develop more productive animals and products such as meat with higher protein and lower fat content, eggs with lower cholesterol level, milk containing pharmaceutical products, or even tissue and organs suitable for human transplantation has stimulated the development transgenic livestock. However, as with any new technology it is difficult to establish that there are no risks involved in the utilization of animals produced in this way.

Indeed, a number of apprehensions have been raised. Some concern, for example, has been expressed over the ability of certain genetically engineered organisms to escape and reproduce in the natural environment. Genetically engineered insects, shellfish, fish, and other animals that are highly mobile, are of particular concern, especially if they are more successful at reproduction than their natural counter parts. As such, governments' decisions on the transboundary movement of LMOs of animal origin and domestic use of LMO-FFPs of the same origin may be based on the Protocol's principles.

The Protocol is likely to become relevant to FAnGR as the use of biotechnology in breed improvement and conservation is not a new phenomenon.

The Biosafety Protocol ratified by the Law No 9279 of 23.09.2004 "On the adherence of the Republic of Albania to the Cartagena Protocol on Biosafety to the Convention

Biological Diversity"[55]

### The Nagoya Protocol

The *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity* is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, there by contributing to the conservation of biological diversity and the sustainable use of its components. The objective of the Nagoya Protocol is to set an international, legally binding framework to promote a transparent and effective implementation of the ABS concept at the regional, national and local level in the future[56]. The objective provides context for interpretation, gives guidance to the Parties in national implementation, and is relevant to future work at the international level when the Protocol enters into force[57]. As a subsidiary legal instrument, the Nagoya Protocol exists to implement the terms of its governing treaty. Its objective thus makes reference to a number of different but interrelated concepts in the context of the CBD, notably Articles 15 (Access to Genetic Resources), 16 (Access to and Transfer of Technology), 19 (Handling of Biotechnology and Distribution of its Benefits), 20 (Financial Resources), and 21 (Financial Mechanism) of the CBD. The Protocol implements some of these concepts in its Articles 5 (Fair and Equitable Benefit-sharing), 6 (Access to Genetic Resources), 9 (Contribution to Conservation and Sustainable Use), 10 (Global Multilateral Benefit-sharing Mechanism), 23 (Technology Transfer, Collaboration and Cooperation), and 25 (Financial Mechanism and Resources)[58].

The Nagoya Protocol was adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting on 29 October 2010 in Nagoya, Japan. The provisions of *Nagoya Protocol* shall not affect the rights and obligations of any Party deriving from any existing international agreement. Nothing in this Protocol shall prevent

[55]Official Journal: 2004, no 74, page 5136

[56]Greiber, Th., Moreno, S.P.,, Åhrén, M., Carrasco, J.N., Kamau, E. Ch., Medaglia, J. C., Oliva, M.J., and Frederic Perron-Welch, P., Natasha Ali, N., China Williams, Ch. 2012 An Explanatory Guide to the Nagoya Protocol on Access and Benefit-sharing.p.ix IUCN Environmental Policy and Law Paper No. 83 ISBN 978-2-8317-1529-2.

[57]Nijar, G. S. 2011b. The Nagoya Protocol on Access and Benefit Sharing of Genetic Resources: Analysis and Implementation Options for Developing Countries. Research Papers No. 36. p.1 Geneva: South Centre

[58]Nagoya Protocol on access to genetic resourcesand the fair and equitable sharing of benefit arising from their utilization to the convention on biological diversity. 2011. Secretariat of the Convention on Biological Diversity. ISBN: 92-9225-306-9

the Parties from developing and implementing other relevant international agreements, including other specialized ABS agreements. This Protocol shall be implemented in a mutually supportive manner with other international[59]

The Nagoya Protocol:

(a) Create conditions to promote and encourage research which contributes to the conservation and sustainable use of biological diversity.

(b) Pay due regard to cases of present or imminent emergencies that threaten or damage human, animal or plant health, as determined nationally or internationally...

(c) Consider the importance of genetic resources for food and agriculture and their special role for food security[60].

(d) According to Article 10 of this Protocol, parties shall consider the need for and modalities of a GMBSM to address the fair and equitable sharing of benefits derived from the utilization of genetic resources and traditional knowledge associated with genetic resources that occur in transboundary situations or for which it is not possible to grant or obtain PIC.

The benefits shared by users of genetic resources and traditional knowledge associated with genetic resources through this mechanism shall be used to support the conservation of biological diversity and the sustainable use of its components globally.

To implement the Nagoya Protocol is necessary the development of the National legislation. Countries parties have obligations to:

(i) Designate a National Focal Point on ABS;

(ii) Designate one or more competent national authorities on ABS

(iii) Prepare and implement national legislation;

(iv) Make available to the ABS Clearing-House any information required by the Protocol

(v) Facilitate access to GR and TK;

(vi) Take measures to provide that GR utilized within its jurisdiction have been accessed in accordance with PIC and MAT;

(vii) Establish one or more checkpoints

(viii) Encourage the development, update and use of sectoral and cross-sectoral model Contractual clauses for MAT etc.

[59]Nagoya Protocol, Article 4.

[60]Martyniuk E. 2012. National and regional gene banks-Access and Benefit Sharing and IP related issues. Workshop of the ERFP Working Group *Ex situ* Conservation 23-26 May 2012, Zagreb, Croatia

In order to implement the Nagoya Protokoll it is necessary:

(i) On the one hand, the drafting of a legal framework which takes into account that users need clear, transparent, predictable, equitable, and efficient legal and administrative frameworks to secure legal clarity and certainty when accessing genetic resources and traditional knowledge associated with those resources. Without such legal certainty, researchers and industries will be less eager to invest in bioprospecting activities. This will lead to less access and asa consequence to less benefit-sharing in the end. Furthermore, lack of legal clarity will make it difficult for users to fully comply with the providers' ABS requirements, leading to controversy and allegations of misappropriation or misuse, and

(ii) On the other hand, the main interest of providers lies in the fair and equitable sharing of the benefits arising from the utilization of their genetic resources and traditional knowledge associated with those resources. Providers therefore need effective measures to ensure that users in their jurisdiction do not misappropriate or misuse genetic resources and traditional knowledge associated with those resources[61]

In COP 10, Nagoya, Japan 18-29 October 2010, the Conference of the Parties has decided to adopt the Nagoya protocol (Decision X/1). This Decision adopted in COP 11, Hyderabad, India, 8 - 19 October 2012 underlined:

(i) the need for and modalities of a global multilateral benefit-sharing mechanism,

(ii) measures to assist in capacity-building, capacity development and strengthening of human resources and institutional capacities in developing country Parties, in particular the least developed countries and small island developing States among them, and Parties with economies in transition, including those that are most environmentally vulnerable *and*

(iii) measures to raise awareness of the importance of genetic resources and associated traditional knowledge, and related access and benefit-sharing issues.

Albanian has signed the Nagoya Protokoll on Januray, 2013.

[61]Greiber, Th., Moreno, S.P.,, Åhrén, M., Carrasco, J.N., Kamau, E. Ch., Medaglia, J. C., Oliva, M.J., and Frederic Perron-Welch, P., Natasha Ali, N., China Williams, Ch. 2012 An Explanatory Guide to the Nagoya Protocol on Access and Benefit-sharing.p.13-14. IUCN Environmental Policy and Law Paper No. 83 ISBN 978-2-8317-1529-2.

**The World Trade Organization's Basic Principles**

An analysis of the World Trade Organization (WTO) Agreements relevant to AnGR management, must be read within the framework of some of the WTO's basic principles, which are the following:

*Trade without discrimination* – The basic principles of the multilateral trading system, as embodied in the WTO Agreement, derive mostly from the principles constituting the foundations of the General Agreement on Tariffs and Trade (GATT). Trade without discrimination is one of these, guaranteed through several clauses contained in the multilateral agreements on trade in goods, in the General Agreement on Trade in Services (GATS), and in the TRIPS Agreement.

*Most-favoured nation clause (MFN)* - The most-favoured nation clause has been a pillar provision of the system since the inception of the GATT in 1947. The Contracting Parties were bound to grant to the products of other Contracting Parties treatment no less favourable than that accorded to products of any other country. WTO Members have entered into similar commitments – under the GATT 1994 (art. I) for trade in goods, under the GATS (art. II) in relation to treatment of service suppliers and trade in services, and under the TRIPS Agreement (art. IV) with regard to the protection of intellectual property.

*National treatment* – The national treatment principle condemns discrimination between foreign and national goods or between foreign and national services and service suppliers or between foreign and national holders of intellectual property rights. GATT 1994 and the TRIPS Agreement provide for national treatment as one of the main commitments of WTO Members.

Imported goods, once duties have been paid, must be given the same treatment as domestic productsin relation to any charges, taxes, or administrative or other regulations (GATT, Article III). With regard to the protection of intellectual property rights, and subject to exceptions in existing international conventions, WTO Members are committed to grant nationals or other WTO Members treatment no less favourable than that accorded to their own nationals (Article III). GATS, due to the special nature of trade in services, deals with national treatment under its Part III, Specific Commitments, (Article XVII), where national treatment becomes a negotiated concession and may be subject to conditions or qualifications that Members have inscribed in their schedules on specific commitments in trade in services.

*Transparency* - Provisions on notification requirements and the Trade Policy Review Mechanism are set out in the WTO Agreement and its Annexes, with the objective of guaranteeing the fullest transparency possible in the trade policies of its Members,

regarding goods, services and the protection of intellectual property rights. Article X of GATT 1994 deals with the publication and administration of trade regulations; Article III of GATS sets out provisions on transparency as one of the general obligations and disciplines under that agreement; and Article 3 establishes transparency rules for the TRIPS Agreement[62].

In the view of the WTO and of the developed country representatives, the Agreement on Agriculture is an instrument for the liberalization of world trade in agricultural products – hence there is expectation that any new agreement reached will carry the process of trade liberalization further.

With regard to market access for agricultural products, developing countries generally will consider greater access to developed country markets as high priority. In this context, the EU has already granted tariff-free access to essentially all products from the least developed countries (the 'Everything but Arms' Agreement). In addition, many developing countries already benefit considerably from preferential and non-reciprocal market access to the EU[63]

**World Intellectual Property Organization**

The World Intellectual Property Organization (WIPO) is a specialized agency of the United Nations established by the WIPO Convention in 1967. It is dedicated to the promotion of the protection of intellectual property throughout the world. WIPO administers 24 treaties, including the WIPO Convention.

Discussions in different WIPO Committees are relevant for genetic resources and traditional knowledge, particularly those taking place in the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC). The WIPO IGC was established by the WIPO General Assembly in 2000 as a forum for discussions among Member States and is undertaking text-based negotiations with the objective of reaching agreement on a text of an international legal instrument (or instruments) that will ensure the effective protection of traditional knowledge, traditional cultural expressions/folklore, and genetic resources.

Furthermore, the WIPO IGC has compiled an on-line, searchable database of biodiversity-related ABS agreements and related information, with a particular emphasis on the intellectual property aspects of such agreements.

[62] Available at www.wto.org.

[63] Ingrassia, A., Manzella, D., Martyniuk, E.2005. The legal frameworkfor the management ofanimal genetic resources.FAO Legislative Study 89, p.20

**WTO Trade-Related Intellectual Property Rights Agreement (TRIPS)**

The TRIPS Agreement, which came into force in January 1995, is the most comprehensive multilateral agreement on intellectual property in place to date.

It established minimum standards of protection and is binding upon WTO Member Countries and Regions. It covers the following areas of intellectual property, such as:

1. copyright and related rights (i.e. the rights of performers, producers of sound recordings and broadcasting organizations);
2. trademarks, including service marks;
3. geographical indications, including appellations of origin;
4. industrial design;
5. patents, including the protection of plant varieties;
6. the layout-designs of integrated circuits; and
7. undisclosed information, including trade secrets and test data.

**The *Codex Alimentarius***

The Codex Alimentarius is the reference point for the harmonization of international regulations for the protection of consumers. The regulations encompass, *inter alia*:

(i) Food standards for commodities;
(ii) Codes of hygienic or technological practice;
(iii) Evaluation of pesticides and veterinary drugs;
(iv) Limits for pesticide residues and
(v) Guidelines for food additives and contaminants.

In addition to the above, the *Codex Alimentarius* has also established general standards for:

(i) food labeling;
(ii) methods of analysis and sampling;
(iii) food hygiene and
(iv) food import and export inspection and certification systems.

**World Organisation for Animal Health (OIE)**

The OIE aims to ensure transparency in the global animal disease and zoonosis situation and provides guarantee of the safety of food of animal origin through a science-based approach. Within its mandate under the WTO SPS Agreement OIE safeguards world trade by publishing health standards for international trade in animals and animal products. To that effect, it formulates regulations and measures to prevent animal diseases.

**Soft law**

**Agenda 21**

Agenda 21 is a soft law instrument. Its Chapter 14 on *Promoting Sustainable Agriculture and Rural Development* (SARD) highlights the fact that SARD's major objective is to increase food production in a sustainable manner and enhance food security[64]. Among the programme areas included in Chapter 14, of particular relevance is programme area on the conservation and sustainable utilization of animal genetic resources for sustainable agriculture. The objectives of this programme area are:

(a) To enumerate and describe all breeds of livestock used in animal agriculture in as broad a way as possible and begin a 10-year programme of action;

(b) To establish and implement action programmes to identify breeds at risk, together with the nature of the risk and appropriate preservation measures;

(c) To establish and implement development programmes for indigenous breeds in order to guarantee their survival, avoiding the risk of their being replaced by breed substitution orcross-breeding programmes

According to the management-related activities specified in this programme, Governments should:

(i) draw up breed preservation plans for endangered populations, including semen/embryo collection and storage, farm-based conservation of indigenous stock and *in-situ*conservation

(ii) plan and initiate breed development strategies; *and*

(iii) select indigenous populations, on the basis of regional importance and genetic uniqueness, for a 10-year programme, followed by the selection of an additional cohort of indigenous breeds for development.

**Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising from their Utilization**

The Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising from their Utilization (Decision VI/24) was a major achievement of COP 6[65].

The Bonn Guidelines has a large list of objectives that should be part of objectives of all countries parties[66]

[64]Promoting Sustainable Agriculture and Rural Development.Agenda 21. United Nations Environment Programme (UNEP). http://www.unep.org/

[65]Available athttp://www.cbd.int/decision/cop/default.shtml?id=7198

[66]The objectives of the Guidelines are the following:

The guidelines provide for a set of voluntary rules to assist parties, governments and other stakeholders when establishing legislative, commercial and scientific gains realized from theirgenetic resources weregoing mainly to the industrialized world.

At the national level, the CBD is implemented through national legislation or biodiversity action plans. Several formats and procedures have been adopted by national parliaments, creating diverse and innovative mechanisms for assuring legal access and equitable benefit-sharing. The Bonn Guidelines establish for the first time a precise set of options for, among other things, developing procedures for access and benefit sharing, clarifying the relationship with traditional knowledge and identifying practical mechanisms for monitoring, and providing space for legal remedies. The guidelines also deal with some aspects of the role of intellectual property in the access and benefit sharing process.

The Bonn Guidelines state that, before collecting any genetic resources, acollector should have a written agreement that includes certain key provisions:

(i) prior informed consent from the national government of the country of origin;

(ii) access to genetic resources or the "traditional knowledge" of anindigenous community or communities will normally require obtaining the prior informed consent of that community or communities;

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a. To contribute to the conservation and sustainable use of biological diversity;

b. To provide Parties and stakeholders with a transparent framework to facilitate access to genetic resources and ensure fair and equitable sharing of benefits;

c. To provide guidance to Parties in the development of access and benefit-sharing regimes;

d. To inform the practices and approaches of stakeholders (users and providers) in access and benefit-sharing arrangements;

e. To provide capacity-building to guarantee the effective negotiation and implementation of access and benefit-sharing arrangements, especially to developing countries, in particular least developed countries and small island developing States among them;

f. To promote awareness on implementation of relevant provisions of the Convention on Biological Diversity;

g. To promote the adequate and effective transfer of appropriate technology to providing Parties, especially developing countries, in particular least developed countries and small island developing States among them, stakeholders and indigenous and local communities;

h. To promote the provision of necessary financial resources to providing countries that are developing countries, in particular least developed countries and small island developing States among them, or countries with economies in transition with a view to contributing to the achievement of the objectives mentioned above;

i. To strengthen the clearing-house mechanism as a mechanism for cooperation among Parties in access and benefit-sharing;

j. To contribute to the development by Parties of mechanisms and access and benefit-sharing regimes that recognize the protection of traditional knowledge, innovations and practices of indigenous and local communities, in accordance with domestic laws and relevant international instruments;

k. To contribute to poverty alleviation and be supportive to the realization of human food security, health and cultural integrity, especially in developing countries, in particular least developed countries and small island developing States among them;

l. Taxonomic research, as specified in the Global Taxonomy Initiative, should not be prevented, and providers should facilitate acquisition of material for systematic use and users should make available all information associated with the specimens thus obtained.

2. The Guidelines are intended to assist Parties in developing an overall access and benefit-sharing strategy, which may be part of their national biodiversity strategy and action plan, and in identifying the steps involved in the process of obtaining access to genetic resources and sharing benefits.

(iii) the non monetary and/or monetary benefits the collector will provide; *and*

(iv) whether,and under what conditions, the collector may transfer the collected genetic resources to another party.

The guidelines are also intended to assist governments in setting fair and practical conditions for users seeking genetic resources. The guidelines suggest that resource users should in return offer benefits derived from their use in the administrative or policy measures on access and benefit-sharing and/or when negotiating contractual arrangements for access and benefit-sharing. They also provided a response to concerns in many developing countries that the form of profits, royalties, scientific collaboration, or training.

These Guidelines may serve as inputs when developing and drafting legislative, administrative or policy measures on access and benefit-sharing with particular reference to provisions under Articles 8(j), 10 (c), 15, 16 and 19 of CBD; and contracts and other arrangements under mutually agreed terms for access and benefit-sharing.

**Regulatory framework of the EU**

The EU legislation consists of directives and regulations, which must be implemented at the member state level. Directives are binding as to the result to be achieved, upon each member state to which they are addressed, but leave to each member state the choice of form and methods to transpose the directive into national legislation (usually within two to three years after adoption). Regulations are binding in their entirety and are directly applicable in all member states. Regionally speaking, the EU has built up a significant body of legislative texts relevant to Farm Animal Genetic Resources (FAnGR) management, some in the context of the Common Agricultural Policy, others in different areas, such as conservation of genetic resources, zootechnics (animal breeding), food products, animal health, export of animals and animal products, animal feed safety, veterinary controls and GMOs[67].

In summary, the following policies or regulations are the most relevant in relationship to FAnGR conservation and use:

The Common Agricultural Policy (CAP) regulates production, trade and processing of agricultural products in the EU. On 26 June 2003, EU farm ministers adopted a fundamental reform of the Common Agricultural Policy (CAP) and introduced a new Single Payment Scheme (or Single Farm Payment, SPS) for direct subsidy payments

[67] Ingrassia, A., Manzella, D., Martyniuk, E.2005. The legal frameworkfor the management ofanimal genetic resources.FAO Legislative Study 89, p.35-36

to landowners.

The system of subsidy applies throughout the European Union according to rules agreed between the member states. However, exact details of implementation and grants vary from country to country within the outline rules. The new scheme was intended to change the way the EU supported its farm sector by removing the link between subsidies and production. This reform focused on consumers and taxpayers, while giving farmers the freedom to produce what the market wanted. Member States have the choice to maintain a limited link between subsidy and production to avoid abandonment of particular production. The Single Farm Payment is linked to meeting environmental, public, animal and plant health and animal welfare standards and the need to keep land in good agricultural and environmental condition. This shift has potentially significant implications for utilization of FAnGR.

Regulation 1257/1999 established the framework for support for sustainable rural development, including protection of the environment. Under this framework regulation 817/2004 provides for financial support to be given to farmers rearing animals of 'local breeds indigenous to the area and in danger of being lost to farming'. Support for conservation measures is to be further strengthened un 1698/2005, which was come into force in 2007. The LEADER+ initiative has also been established to encourage rural stakeholders to consider the longer-term potential of their area.

EU is a party to the CBD and – as a consequence – all EU countries are obliged to develop national biodiversity strategies that – in the context of agricultural biodiversity – also address conservation of FAnGR. Related to the implementation of the Biodiversity Action Plan for Agriculture, regulation 870/2004 explicitly aims to increase the emphasis on the conservation of animal genetic resources.

Council Regulation (EC) No 870/2004 of 24 April 2004 – establishing a Community programme on the conservation, characterisation, collection and utilisation of genetic resources in agriculture and repealing Regulation (EC) No 1467/94

A further body of EU legislation relates to the management of animal breeding. Animal breeding legislation covers bovine, porcine, ovine, caprine and equine species. Related to improvement of animal health within the EU, there is a body of legislation permitting intracommunity trade and imports of animals in accordance with health standards and obligations under international law.

The three Council of Europe (CoE) conventions of principal interest for farm animal welfare are:

-*The European convention for the protection of animals kept for farming purposes*

*(ETS No. 87) of 1976, revised in 1992 (ETS No. 145)*[68].

-*The European convention for the protection of animals during international transport (ETS No. 65) of 1968, revised in 2003 (ETS No. 193)*[69].

-*The European convention for the protection of animals for slaughter (ETS No. 102) of 1979*[70].

Finally, the EU legislative framework for food safety affects livestock production and marketing, and hence the utilization of AnGR.

[68]Was adopted by Council Decision 78/923/EEC and then Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes [Official Journal L 221/23 of 8.8.1998].
Council Directive 98/58/EC applied without prejudice to other pre-existing instruments, namely, Directive 88/166/EEC, Directive 91/629/EEC and Directive 91/630/EEC. See Council Directive 98/58/EC, art. 1.3.

[69]Council Regulation (EC) No. 1/2005 on the protection of animals during transport and related operations of 22 December 2004 [Official Journal L 3 of 5.1.2005)

[70]Was adopted by Council Decision 88/306/EEC and updated by Council Directive 93/119/EC. Council Regulation (EC) No. 1099/2009 on the protection of animals at the time of killing of 24 September 2009 [Official Journal L 303/1 of 18.11.2009]

# Chapter III

# Assessments of current status and needs of Albanian framework relevant to Farm Animal Genetic Resources

## Albania – FAO/TCP/ALB/3001

As a member state of FAO, Albania has been part of the FAO initiative for developing the *Global Strategy for the Management of Farm Animal Genetic Resources*. In 2002, the Ministry of Agriculture and Food prepared the first "*Status Report for Animal Genetic Resources*"[71]. The Report documented the country's existing animal genetic resources and identified the principal challenges, demands, needs, trends and national capacity building requirements related to *in-situ* conservation and use of the country's declining Farm Animal Genetic Resources. This approach followed the guidelines provided by FAO as part of the preparation of the *First Report on the State of the World's Animal Genetic Resources*. In this regard, it was expected that the Country Status Report would act as the base for the development and implementation of a National Strategy and National Action Plan for the management and *in-situ* conservation of Farm Animal Genetic Resources.

As a result, the Government of Albania has recognized the need to take effective management action to stop the erosion of their remaining animal genetic resources and develop improved utilization systems.

The Albanian Government, however, lacks the technical capacity, expertise and knowledge to move forward with either the development of a National Strategy and National Action Plan or their subsequent implementation. Furthermore, whilst existing legislation covers some aspects of protection and development of livestock such as animal disease control (Law no. 7674/2000) and purebred reproduction (Law no. 8409/1998), it does not contain enabling provisions on conservation and sustainable use of Farm Animal Genetic Resources. Decisions shall be made on how best to use both locally adapted and exotic animal genetic resources, how best to achieve sustainable use of their production systems, what genetic resources need to be conserved. Communities should be involved in conservation, since they play an essential role in safeguarding domestic animal diversity. There is therefore a further priority need to review, and where appropriate, amend existing legislation or draft new provisions, to ensure an effective legislative environment for future *in-situ* or *ex-situ* conservation and sustainable use of

[71]Status Reportfor Albanian Animal's Genetic Resources. Ministry of Agriculture and Food, 2002

Farm Animal Genetic Resources.

In this context, the Government of Albania requested assistance to FAO through the technical cooperation project, TCP/ALB/3001, which was approved by the Director General of FAO in September 2004. The project has the overall objective of supporting the long-term *in-situ* conservation of Farm Animal Genetic Resources in Albania in order to improve sustainable agricultural production and food security[72].

The main results of this project can be listed as follows:

a) National Strategy for Conservation and Management of FAnGR (draft)

The draft Strategjia was developed by having regard of the Albanian Status Report for Animal Genetic Resources[73].

b) Building up of National Network to support *in-situ* conservation of FAnGR

The National Network to support implementation of National Action Plan was conceived as a pyramidal network, based on farms breeding native / authocthonous / local animal breeds. The head of this network was the National Coordinator for Animal Genetic Resources. The National Consultativ Commitee as a consultative institution at the Ministry of Agriculture was constituted in compliance with FAO Guidelines[74]. The network includes the National Focal Center as the main public institution. The network has 12 local coordinators, one for each Food and Agriculture Regional Directorates. Each of them leads the regional sub-network. The regional sub-network consists of animal production specialists / advisory services and farmers, groups of farmers or farmers' organizations. In order to develop the network capacities, within the FAO/TCP/ABL (3001) and onwards, were conducted local and national training sessions.

The Minister of Agriculture, Food and Consumer Protection has adopted the Working Regulation, which contains all rights and duties of different memebers of network.

c) Legislation

[72] Objective of FAO/TCP/ALB/3001

**General objective**

Support the Long-terme *In-situ* conservation of FAnGR in support of sustainable agricultural production and food security

**In Particular :**

i) support the development of a National Strategy for *In-Situ* Conservation of FAnGR and a National Action Plan;
ii) build professional and technical capacity amongst key stakeholders to implement a National Strategy and National Action Plan;
iii) establish a national network to support implementation of National Action Plan;
iv) provide recommendations for design of an appropriate legislative framework to support *in-situ* conservation of AnGR.

[73] Kume,K. 2006. Capacity building to support *In-situ* conservation and use of animal genetic resources, Final Report, MoAFCP, Tirana, pp.95

[74] Draft guidelines to assist the preparation of national strategies and action plans for animal genetic resources for food and agriculture. FAO. CGRFA/WG-AnGR-5/09/Inf. 6

An International Legal Consultant in collaboration with the Albanian authorities prepared the "Analyse of Albanian National legislation relevant for the conservation, management, and improvement of animal genetic resources"[75]. The report states a number of key directions for the development of national legislation in the light of relevant international legal framework.

**Albanian National Strategy for conservation and sustainable use of Farm Animal Genetic resources**[76]

The main terms of reference in accordance with which it is designed the National Strategy for Conservation and Sustainable Use of Farm Animal Genetic Resources, can be listed as follows:

- Identification, characterization and risk of extinction trend evaluation of farm animal genetic resources.
- Characterization and trends evaluation of traditional, extensive and intensive production systems using in Albanian farms,
- Implementation of both, the National System for Identification / Matriculation of farm animals and the Performance Control System of Production.
- Elaboration and implementation`s needs of national and regional genetic/breeds programs for conservation, genetic improvement of exotic,native/authochonous/ local commercial and rare breeds of farm animals.
- Development the policies and necessary public and private infrastructures and institutions for implementing and monitoring,conservation, breeding, and sustainable use of farm animal genetic resourcesprograms.
- Programs development for*in-situ*, *ex-situ* and*ex-situ in vivo*conservation of native breeds of farm animals*at risk of extinction.*
- Training and awareness.
- Development of national legislation and institutional capacities.
- International cooperation.

[75]Ingrassia, A. 2005 Capacity Building to Support *In-Situ* Conservation and Use of Animal Genetic Resources. Mission Report, FAO, Tirana, June 12-24. p. 25

[76]Albanian Strategy and National Action Plan for Conservation and a Sustainable Management of FAnGR. Ministry of Agriculture, Food and Consumer`s Protection, Tirana, 2007

**Albanian National Plan of Action for conservation and sustainable use of Farm Animal Genetic resources**

The National Action Plan 2007-2013, is designed taking into account the objectives set forth by the Strategy and Action Plan for Biodiversity 2000-2015[77], Sectorial Strategy of Agriculture and Food 2007-2013[78], Inter Sectorial Strategy of Rural Development, 2007-2013[79]. The strategic priorities of this Plan of Action are compatible with the priorities defined by the Albanian National Strategy for conservation and sustainable use of FAnGR and *Global Plan of Action and Interlaken Declaration*, September, 2007, FAO. The most important priorities can be listed as follows:

- Give greater attention to development of programmes and projects for identification, characterization, management and sustainable use of FAnGR.
- Develop activities for conservation (*in-situ, in-vitro* and *ex-situ in vivo*) of native/aothochthonous/local breeds and
- Establish a National database for FAnGR.
- Strengthen capacities for implementing cross-border and regional projects for transboundary breeds.
- Promote technology transfer for the management the FAnGR and support the market for traditional products.
- Develop the legal framework for FAnGR in accordance with EU legislation[80]

The National Action Plan provides for the implementation of actions in order to support the National Strategy for Conservation, Development and Sustainable Use of Farm Animal Genetic Resources, emphasizing in particular on:

- Drafting policies and programs for Conservation, Development and Sustainable Economic Use of animal genetic resources, native and exotic/ breeds/ ecotypes/ indigenous populations, in order to ensure the population foodneeds in quantity, quality and in compliance with food safetystandards.
- Listing preventive measures and building up the necessary capacities to reduce at maximum, the effects of stakeholders that cause reduction of biodiversity and the environment and ecosystems destruction.
- Provide greater awarneess to the society, stakeholders and government, for the economic value and the need for conservation and development of traditions and

[77]Official Journal, 2000, No. 32, dated 23.10.2000
[78]Official Journal 2007, no. 192, page 6149, publication date 8.2.2008
[79]Official Journal 2007, no. 163, page 4815, publication date 8.12.2007
[80] FAO Country poster, 2010, Albania: http://www.fao.org/ag/againfo/programmes/en/genetics/posters.html

ethno-cultural heritage associated with the indigenous genetic fund of farm animals.

- Orientation and support of the scientific research for the development and implementation of modern techniques and technologies that have as objective:
  (i) the optimization of breeding programs,
  (ii) development of biotechnologies for cryoconservation, molecular genetics and quantitative genetics.
- Development and implementation of policies to subsidize animal breeds and populations of native/ local breeds at risk of extinction[81]

The Albanian National Plan of Action defines the following middle term actions[82]:

*I. Building up the National data baze for FAnGR*

- Identification and characterization of native/ authocthous/ local/ breeds /populations of Farms Animal Genetic Resources
- Evaluation of population size, number of reproductors (f & m), trend of population, mains productive traits, production system
- Evaluation the level of genetic erosion and associated risk of extinction

*II. Building up the Red book of local farm animal breeds*

- Identification of local breeds/populations that were declared "At risk of extension"
- Evaluationof conditions and factors affecting the decline of farmer interest for the management of local breeds / population stated at risk of extinction

*III. Compiling and implementation of In-situ conservation programs for endangered breeds*

- Compiling *In-situ* conservation progamms and identification of the target group of farms where the *In-situ* conservation program shall be implemented
- Finding the necessary funds for the implementation of *In-situ* conservation programs.

*IV. Building up the National Gene bank*:

- Gene Bank with Somatic cell for all Albanian FAnGR – local, native and exotic breeds
- *Ex-situ in vivo* gene bank for local animal breeds at risk of extincion

*V. Development of legal framework*:

[81] Kume, K. Tahiri, F. 2008. Albanian National Action Plan for conservation and Sustainable use of FAnGR. International Symposium Animal Production, Veterinary medicine and Agroeconomie in the healthy and food safety production. Montenegro, Herceg Novi, June, 22-29,2008

[82] Kume,K. 2010. Development of National Action Plans for Sustainable Management of Animal Genetic Resources. Regional workshop for National Coordinators for the Management of Animal Genetic Resources and their alternates. FAO, *Kyiv, Ukraine 27-30September 2010*

- Approximation of the Albanian legislative acts with the EU legal framework

According to the National Plan of Action the MoAFCP, has compiled the Matrix-*Plan for implementing*- of National Action Plan for Conservation and Development of FAnGR, as part of Sectorial Strategy for Rural Sustainable Development.

Among the main challenges faced by the National Plan of Action implementation, can be listed:

(i) Low level of economic development

(ii) Lack of knowledge and necessary infrastructure for the conservation, management and sustainable economic use of autochthonous breeds / populations

(iii) Not enough level of public awareness, in general and of farmers community in particular, concerning the values of autochthonous genetic pool in farm animals

(iv) Not enough capacities for development of international, cross border and regional collaborations to support the development of biodiversity protection and sustainable economic use of FAnGR, *in general* , and autochthonous/ local transboundary breeds, *in particular*.

**Current status of Albanian Farm Animal Genetic Resources**

Geo-climatic conditions in Albania have favored the development of the bioclimatic ecosystems that are characterized by a high biological diversity. The evolutionary processes have occurred in these ecosystems through centuries, which have created a very rich autochthonous genetic fund of Farm Animal Genetic Resources. Until the middle of last century this fund was the main source of animals that was farmed in Albanian farms. Till year 1960 Albania was the most isolated ecosystem in Europe. This situation was consequence of different factors, among of them the most important were:

- The low socio economic development in Albania, in general, and in rural areas, in particular. Albanian farmers were indifferent to the results of the animal genetic improvement science.
- Lack of infrastructure and the remount mountainous terrain had highly minimized phenomena of migration and emigration of farm animals. Breeding of genetic niches and isolated animal population was frequent.

The implementation of centralize economic development policies during the second half of the last century, directly affected the shaking of the genetic balance, in the Albanian autochthonous genetic fund. The genetic fund underwent the essential transformations in

the whole main species such as: bovine, porcine, ovine and equidae. During that period, almost 100% of local cattle population was crossed with the imported breeds, about 80-85 % of local sheep populations were crosses with the exotic breeds such as: Tsigaya, Merino etc. Local pig was replaced from the exotic breeds, such as: Large White, Duroc, Landrac, Hempshire and Chinese breeds –Meinshan and Sinxhin. In that period, Albania was ranked at the second position on the world to the number of the imported of animal of exotic breeds/ habitant. Local sheep breed populations and perhaps cattle, pigs and poultry ones, which were in the remote and isolated mountainous areas, were saved from crossbreeding or replacing with the exotic breeds.The goat population was the only species not submitted to the process of genetic improvement through crossbreeding with exotic breeds[83].

The indigenous genetic fund in farm animals in Albania is characterized by a high degree of genetic variability between species and within species, between breeds / ecotypes and / orlocal populations.

The Albanian autochthonous cattle breed is part of the Bos- Brachycerous group. Currently have been identified two different autochthonous strain, named: Illyric Dwarf Cattle “Lopa e Prespes” and “ Lopa Gurgucka” and Busha cattle[84].

Six native/ autochthonous sheep breeds are identified: Ruda, Bardhoke, Shkodrane, Lara e Polisit, Syka e Matit and Rrecka.

The Albanian goat population is characterize by a high level of genetic variability.

There areidentified different strains/ ecotypes: Dragobia, Vepiloja, Mati, Caporre e Mokrres, Liqenasi, E Zeza e Dukatit, Muzhake etc..

Local pig breeds “ Spotted of Scutary”, “Pig with wattle” are identified in North east of Albania.

Albanian chicken population is charachterised by high level of genetic variability.

In Albania are identified two type of local donkey[85].

We can surely affirm, referring to the current population size of Albanian native/autochthonous breeds and its trend, farmers interest on breeding them, import trend of exotic breeds and the crossbreed and/or replacment of local breeds with exotic ones, that the Albanian native / autochthonous Genetic Fund of Farm Animals is highly exposed to the risk of extinction[86].

[83]Kume, K. Papa, L. 2012. Study of biodiversity in goats in Albania. Proceeding Book. Third International Scienticic Symposium “Agrosym 2012” Jahorina, BiH. pp.492-498.

[84] Kume, K. “ Busha – old cattle of the Balkan” ERFP, 2013.

[85]Catalogue of Albanian Farms Animal Genetic Resources. 2011. Ministry of Agriculture, Food and Consumer`s Protection

**Status assessement of policies, institutions and implementation of legislations relevant to FAnGR – query resuts**

During the European Biodiversity Day (EAD) symposium held on 29 September 2005, Mr. Jemin Gjana, Minister of Agriculture, Food and Consumer Protection, after considering the high values of biodiversity in farm animals as one of the most important national assets, stressed that the work and commitment of the Albanian society, public and private institutions, in generally, farmers and other stakeholders in particular, is far from real needs needed to preserve, develop and effectively use this asset.[87].

The period 2005-2013 was characterized by efforts to develop capacity for conservation and Sustainable use of FAnGR. In order to evaluate the results achieved through the development of policies, institution and legal framework, from March to May 2013 were conducted several interviews with representatives of various public and privat institutions dealing with conservation and sustainable use of FAnGR such as, Ministry of Agriculture, Ministry of Environment, regional departments of agriculture and food, Breeding Associations and Other stakholders. The interviews and a short questionnaries were focused on:

- Policies relevant to conservation and use of FANGR
- Legislative developmnet
- Institutional capacities
- Public awareness

The conlusions given by this interview can be summarized as follows:

(i) The support policies and commitment of public institutions for preservation and use of FAnGR is insufficient.

[86] Kume, K. 2010. Development of National Action Plans for Sustainable Management of Animal Genetic Resources.Regional workshop for National Coordinators for the Management of Animal Genetic Resources and their alternates. FAO, *Kyiv, Ukraine 27-30 September 2010*

[87]Gjana, J. 2005. "Farm animals, breeds and their different ecotypes and, in particular indigenous breeds, are among the most precious treasures that our country has ..... We have a genetic funds in farm animal, to be really admired but we have done very little to recognize, evaluate, characterize and use this property:

We are one of few countries that have not prepared and do not have effective policies, institutions and tools for conservation and economic sustainable use FAnGR.

We are among few countries in the world and the only one in Europe that do not have a national database,

We are one of few countries that have not an *Ex-situ* conservation Gene Bank for endagered breeds, ecotypes and / or indigenous populations at risk of extinction.

We sre among few countries that does not have the necessary infrastructure for the implementation of genetic improvment programs,

We are among the countries where the awareness level of farmers community and the political makers, towards the values of this national property is low and insufficient,

We are among the countries where the level of knowledge and capacity for techniques and technologies transfer in order to preserve and develope animal genetic resources is among the lowest in the region"

National Symposium"Conservation of Native/Authochthounous farm animal breeds - crucial factor for development of agrobiodiversity, September, 29, 2005, Tirana, Albania

(ii) The expectations for the effects of the implementation of the Strategy and National Action Plan for the conservation and sustainable use of FAnGR, generally, are not enthusiastic.

(iii) The capacity and the support with public funds for implementing the National Action Plan is insufficient.

(iv) The perception of a sensitive difference between the level of legislative treatment of issues related to conservation and use of FAnGR and its implementation is very frequent.

(v) The current legislative framework does not give the necessary attention to issues relevant to FAnGR, in general, and conservation and sustainable use of native / authochthonous / local breeds, in particular.These issues shall be addressed in line with the relevant legislation of biologica diversity, rural development and conservation and use of the environment.

(vi) Capacity for the development of international, regional and crossborder cooperation is insufficient. The support policies are ineffective.

(vii) The farmer's community lacks the necessary capacities to implement the breeding programs. Farmer's interes on these programs is insignificant.

Interviews and questionnaires highlighted, in particular, as problematic:

- lack of continuity in development and implementation of government policies
- lack of strong arguments to justify conservation of AnGR
- lack of systematic and comprehensive legislative framework
- lack of institutional capacities
- lack of coordination between Ministry of Agriculture, Ministry of Environment, Agricultural University, local governments and farmers communities
- lack of organization among small scale farmers
- lack of capacities for traditional processing of livestock products;
- lack of awareness of the roles and values of native/authochthonous/local farm animal breeds;

Referring to the opinions expressed, as main bottlenecks can be listed:

- important gaps in legal framework and legal status for FAnGR to support public and private initiatives,
- unclear breed definition and genetic relationships between breeds
- lack of breeders associations,
- lack of cooperation between different stakeholders,

- low motivation of farmeers to keep native/authochthonous/local/ non-commercial breeds breeds,
- reluctance of farmers with respect to financial implications,
- Little awareness and understanding in society of importance of conservation and management of FAnGR,
- limited financial resources, lack of infrastructure or the not effective funding system,
- limited human resources/experts,
- lack of capacities for marketing the traditional product

The opinions expressed in relation to Mimiddle-term developments can be ranked as follows:

- Support to strengthen the management capacity for identification, characterization and monitoring trend of risk status.
- Develop capacities necessary for monitoring the state of animal genetic resources under all production systems
- Establish long-term species and breed development strategies
- Strengthen the institutional capacity and tools to improve use and development of animal genetic resources within all available production systems
- Establish comprehensive national breeding programmes
- Enhance capacity to implement *in-situ and/or ex-situ* conservation measures
- Maintain traditional knowledge, practices and lifestyles that support conservation efforts
- Strengthen national institutions and human resources capacity for planning and implementing AnGR initiatives, including National Focal Points for FAnGR
- Establish the network of research institutions and enhance research to support efforts to conserve, develop, and sustainable use of FAnGR
- Increase public awareness of the roles and values of FAnGR
- Enhance policy development and legal frameworks for AnGR to address the complex driving forces that affect the livestock sector

## Chapter IV

## Analysis of the Albanian legal framework relevant to the conservation of farm animal genetic resources

### Why conserve farm animal genetic variability?

The Minister of Agriculure, Food and Consumer`s Protection declared at the VIII[th] International Symposium on "Biodiversity Conservation and Economic Sustainable Use for Rural Development" that: "The conservation of the genetic variability in farm animals is one of the responsabilites …..[88]this is a global challenge because conservation of farm animal genetic variability means[89]:

*(i) Opportunities to meet future market demand*

Rising incomes lead to rising demand for specialized foods generated by a diversification of animal production systems (Oldenbroek, 1999).

*(ii) Insurance against future changes in production circumstances*

Rising human populations mean higher demand for food. That means increasing the use of drylands – which can be used effectively only for raising livestock. This is possible only by using breeds that are adapted to these conditions.

*(iii) Present socioeconomic value*

Livestock breeds are a source of income for poor farmers. Losing them would deprive these people of their livelihoods.

*(iv) Cultural and historical reasons*

Many breeds reflect the cultural and historical identity of the communities that developed them. Conserving the breed is necessary to maintain their cultural identity.

*(v) Ecological value*

Breed diversity enables people to exploit various ecological niches. For example, cattle breeds that are resistant to trypanosomosis are one of the few ways to produce meat and milk in large swathes of the tropics

### How to conserve livestock genetic diversity?

The diversity of animal genetic resources is essential to satisfy basic human needs for food and livelihood security. They contribute to human needs by providing meat, milk

[88] Ruli, G. 2011. Welcom speech. VIII[th] International Symposium "Biodiversity, Conservation and Sustainable use for Rural Development", October, 2011

[89]Ilse Köhler-Rollefson. 2005. Building an International Legal Framework on Animal Genetic Resources Can it help the drylands and food-insecure countries?.p.10 ICS, Bergisch Gladbach, Germany, 2005

and dairy products, eggs, fibre, clothes, resources for temporary and permanent shelter, manure for fertilizer and fuel, draught power, hunting assistance and marketable assets.

Most animal genetic resources are currently maintained *in-situ*, by farmers, pastoralists and their communities, as integral components of their agricultural ecosystems, economies and cultures. Domestic animals often play key roles in myths, cultures, religions, traditions and social practices. In addition to the animals themselves, foods of animal origin have strong socio-economic and cultural functions in many societies, in addition to playing important roles in nutrition and diets. Nonetheless, there are indications that numerous breeds have become extinct, and many more will be lost if countries do not rapidly implement conservation measures. While some nations recognize the need to conserve their national animal genetic resources, the global response has so far been sporadic and inadequate. In particular, many local breeds, particularly those held by poor farmers in harsh environments in developing countries, have not yet been sufficiently characterized. These animal populations probably contain many valuable adaptive traits, and with their extinction before they are well understood, considerable value may be lost for ever…. Loss of animal genetic resources reduces opportunities to develop rural economies in some countries. Strategically planned interventions for the conservation, use and development of animal genetic resources are essential…[90],

Genetic variation is best conserved on the species level by maintaining separate pure breeding populations rather than establishing large populationswithout reference to breed. Thisis because of the danger of market forces pushing large populations to be selected for a very narrow breeding goal abetted by reproductive techniques that allow individual animals or families to gain major influence on the genetic make-up of a population. The breed should thus be the key unit in conservation ofthe genetic make-up of a population. The breed should thus be the key unit in conservation of animal genetic resources[91]

Genetic diversity is best upheld by conserving individual breeds. There are two ways to do this: *in-situ* and *ex-situ*"

*In-situ* conservation means the conservation of genetic material in ecosystems and natural habitats... in the case of domesticated animal breeds … in the farmed environment where they have developed their distinctive properties. This can also be done int wo ways: “on-farm” or “community based”. In order to develop the necessary

[90]Global Plan of Action for Animal Genetic Resources *and the* Interlaken Declaration. p.7-8 FAO,Roma. 2007

[91] Ruane, J. 1999. Selecting breeds for conservation. Pp. 59–74 in Oldenbroek, J.K. (ed.) *Genebanks and the conservation of animal genetic resources*.DLO Institute for Animal Science and Health, Lelystad, Netherlands.

policies, programs and legislation for the implementation of *in-situ* conservation programmes, member states of the Convention on Biological Diversity (CBD) should take in account and comply with the requirements of Article 8 of the CBD[92].

*Ex-situ* conservation means keeping the genetic material outside its original production context. This can be done two forms: by cryopreservation (deep freezing) of genetic material (semen, oocytes,embryos, DNA), or *ex situ in vivo* as a live populationin a zoo or on an experimental or showfarm. In order to develop the necessary policies, programs and legislation for the implementation of *ex-situ* conservation programmes, member states of the Convention on Biological Diversity (CBD) should take in account and comply with the requirements of Article 9 of CBD[93]

[92]Convention on Biological Diversity.Article 8.*In-situ* Conservation
Each Contracting Party shall, as far as possible and as appropriate:
(a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;
(b) Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;
(c) Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;
(d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;
(e) Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;
(f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies;
(g) Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health;
(h) Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;
(i) Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components;
(j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;
(k) Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations;
(l) Where a significant adverse effect on biological diversity has been determined pursuant to Article 7, regulate or manage the relevant processes and categories of activities; and
(m) Cooperate in providing financial and other support for *in-situ* conservation outlined in subparagraphs (a) to (l) above, particularly to developing countries.

**[93]**Convention on Biological Diversity Article 9.*Ex-situ* Conservation
Each Contracting Party shall, as far as possible and as appropriate, and predominantly for the purpose of complementing in-situ measures:
(a) Adopt measures for the ex-situ conservation of components of biological diversity, preferably in the country of origin of such components;
(b) Establish and maintain facilities for *ex-situ* conservation of and research on plants, animals and micro- organisms, preferably in the country of origin of genetic resources;
(c) Adopt measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions;
(d) Regulate and manage collection of biological resources from natural habitats for *ex-situ* conservation purposes so as not to threaten ecosystems and *in-situ* populations of species, except where special temporary *ex-situ* measures are required under subparagraph (c) above; and

In a high number of CBD member states the legislation in support of *in-situ* or *ex-situ* FAnGR conservation is treated as part of the legislation on biodiversity conservation. Specific provisions for *in-situ or ex-situ* conservation of animal genetic resources are often included in the Natural Protection Law packages.

In several countries, legislation on animal breeding contains separate chapters on conservation and sustainable use of animal genetic resources, and provides detailed descriptions of the scope and measures for conservation. In other countries, there are no specific laws but there are national conservation programmes in place that were endorsed and are financially supported by the Ministry of Agriculture[94].

**Albanian legal framework for conservation of farm animal genetic resources.**

**Why is important the development of the legislative framework for FAnGR conservation?**

The effective and sustainable use of FAnGR is one of the most successful ways for conservation and development of the genetic fund of farm animals. All local, exotic, native/autochthonous farm animal breeds are subject to this rule.

The Albanian Status Report for Animal Genetic Resources[95], referring to the current situation and the need for sustainable development of farm animal genetic resources, underlined the necessity for developing a legal framework which should treat, as best as possible, issues related to:

(i) requirements and needs for breeding programs implementation,
(ii) rural sustainable development,
(iii) capacity building and development of structures, infrastructures and all necessary public and private institutions,
(iv) education, training and professional capacities development of farmers' communities,
(v) support and promote the cooperation between farmers, Breeding organization establishment,
(vi) capacity development of public/privat extension services,
(vii) support and capacity building in research and in technology transfer,
(viii) capacity building for crossborder, regional and international cooperation.

(e) Cooperate in providing financial and other support for ex-situ conservation outlined in subparagraphs (a) to (d) above and in the establishment and maintenance of *ex- situ* conservation facilities in developing countries.

[94] Manzella,D., Chiarolla,C., Hoffmann, I. 2005. The legal framework for the conservation of animal genetic resources. International Workshop "Options and Strategies for the Conservation of Farm Animal Genetic Resources" 15 AGROPOLIS, Montpellier, France, 7-10 November 2005

[95] Albanian Status Report for Animal Genetic Resources, 2002. Ministry of Agriculture, Food and Consumer`s Protection

In order to give an answer to all the questions listed above, it is important to take into account:

(i) peculiarities and characteristics of the Albanian economic and social development and in particular the agricultural economy,

(ii) actual legislation experiences and achievements,

(iii) problems faced during its implementation,

(iv) requirements of international conventions and agreements to which Albania adheres,

(v) international law in general and that of the EU, in particular. The level of reflection of these requirements in the current Albanian legislation.

The analysis results of current Albanian legislation related to the conservation of farm animal genetic resources are as follows.

In an effort to group the main legislative issues dealing with animal genetic resources Manzella, D.,*et al*. (2005) propose that these be grouped into four specific areas:

a)genetic resources conservation;

b) genetic improvement;

c) animal health; and

d)institutional arrangements.

Conservation of animal genetic resources refers to all human activities, including strategies, plans, policies and actions undertaken to ensure that the diversity of animal genetic resources is being maintained to contribute to food and agricultural production and productivity[96].

Conservation of FAnGR, *in-situ* or *ex-situ*, requires the development and implementation of national conservation programmes for breeds and populations that are at risk. This may include support, either directly for breeders of threatened breeds, or measures to support agricultural production systems that manage areas of importance to breeds at risk, the encouragement of breed organizations, community-based conservation organizations, non-governmental organizations and other actors to participate in conservation efforts provided that such support or such measures are consistent with existing national legislation and international agreements. Consequently, all this tableau should be reflected by the pertinent legislation. It should address the requirements that must be met, conditions and restrictions that may be encountered in the implementation of this legislation, as well as legal and institutional instruments necessary for the

[96] Manzella, D., Chiarolla,C.,Hoffmann, I. 2005. The legal framework for the conservation of animal genetic resources. International Workshop "Options and Strategies for the Conservation of Farm Animal Genetic Resources" 15 AGROPOLIS, Montpellier, France, 7-10 November 2005

implementation of FAnGR conservation programs.

## Analyse of Albanian legislation on conservation of animal genetic resources

### Background

The political and economic changes occurring in the early 90s, transformed the socialist concentrated economy based on the principle of state property, into the free market economy based on the principles of privat property and free initiative[97].

These fundamental changes occurred in the fields of property relations and production in the agricultural economy, conditioned the need for new developments of the Albanian legislation. It started to address issues related to the conservation, management and use of FAnGR. The analysis of the legislation achievements, the presentation and discussion of the products carried by the legislator and other political and decision-making institutions, in the period after the transformation of the political-economical system in Albania and to date, is subject to the following treatments.

In order to analyze the legal framework related to the FAnGR conservation, it is important to rely also on the hypothesis according to which: "the development and implementation of legislation need to takeinto account the strong linkages between technical aspects of FAnGR management (e.g. breeding programmes and conservation of breeds) and otherfactors that may influence the general implementation of the legislation (e.g. influencing decisions relating to breeding programmes or the keeping of traditional breeds)"[98].

### General view on legal framework related to issues of conservation of farm animal genetic resources

Article 59 of the "Constitution of the Republic of Albania" states that: *The State shall ensure the protection of the environment and the reasonable utilization of natural resources* [99] .In accordance with this constitutional principle and in order to fulfill obligations deriving from membership and / or ratification of conventions and / or various international agreements for the protection, use and development of biodiversity, Albania

[97] See Chapter I, Paragraph I "Policies towards privatization of agricultural lands", page 15

[98] Ingrassia, A., Manzella, D., Martyniuk, E.2005. The legal frameworkfor the management ofanimal genetic resources. FAO Legislative Study 89, p.112

[99] Constitution of the Republic of Albania Article 59

1. The state, within its constitutional powers and means at its disposal and in supplement of the private initiative and responsibility, aims:

.....

d) a healthy and ecologically adequate environment for present and future generations;

dh) rational exploitations of forests, waters, pasture and other natural recourses on the bases of the principle of sustainable development;

developed an intensive legislative process during 1992-2012 period. The legal acts related to FAnGR conservation, approved by the Albanian`s
Assembly during this period,can be listed as follows:

## I. Primary Legislation:

Law no. 7627 dated 21.10.1992 “On the Livestock Service”
Law no. 8409 dated 25.9.1998 “On the pure-breed reproducers and the breed herds”
Law no.8702 dated 1.12.2000"On the Animals and the Livestock Farms Identification and Registration”
Law no. 9426, dated 20.01.2008 “On Livestock Breeding”

### 1. Law No. 7627 of 21.10.1992 “On the Livestock Service”.

Theobjective of this law was the organization and management of the livestock service and the definition of its functions. This law was consider as a framework law in the area of livestock conservation, breed improvement and use of FAnGR.
According to its Article 1, the Livestock Service, operating in the entire Albanian territory, is composed of the livestock service and the livestock control inspectorate. It is under the authority of the Ministry of Agriculture and operates at different levels. As stated in Article 2, its main functions and responsibilities are:

- implementation of the livestock legislation;
- set priorities and promote the development of the livestock sector;
- define and apply measures for the conservation and development of the genetic fund of animals, poultry, and zoo cultures;
- define the scope of the livestock scientific research;
- organize training for zoo-technicians and producers.

According to Articles 3 to 5, the genetic fund is composed of all animals, poultry and zoo cultures in the territory of the country. Regardless of ownership, the genetic fund is protected by the state. In order to conserve, use and improve the genetic fund of breeds the government may establish collections, breed centres and genetic banks.
According to this law the Central Commission of Breed Improvement within the Ministry of Agriculture and Food was the central administrative structure responsible for the harmonization of the breeding process. Its main functions was the definition of criteria for animals’ registration in the state breed books, the testing of breeds created in the country, and the approval of the import of other breeds or new biological material.

**2. Law No. 8409 of 25.09.1998 "On the Pure-bred Reproducers and breeding stocks of Livestock"**

The main objective of this law was to support the livestock breed improvement activities in the country, the establishment and the functioning of the relevant administrative structure, and to strengthen the different institutions involved in breed improvement.

The law treats in detail definitions for various terms such as "*pure-breed reproducers*", "*genealogical book*", "*breed herd*", "*breed centres*", "*identification of animal*" ect. Through these definitions, this law imposed an end to the discussions related to their content. In such way it created the conditions for the identic use of these terms by all stakeholders, acting in the framework of the implementation of farm animals conservation and genetic improvement programs

According to this law, the MoAF is the institution that have the duty to support the establishment of farmers' associations registered as juridical persons with the main responsibility of keeping the genealogical books and hybrid pigs' registers.

Other relevant provisions of the law are as follows:

(i) Article 2/c regulates the activities of the inspections bodies which are defined by the Law on the Livestock Service as the "Livestock Inspectorates".

(ii) According to Article 2/d, the genealogical book should give information on the breed improvement and have as its main aim the determination of the animals' genetic and economic value. The genealogical book is kept by a farmer's association selected by the MoAF. It contains data on pure-breed reproducers and their descendants.

(iii) In terms of Article 2/e, the MoAF has the responsibility to approve the establishment of breed centres, following a proposal of the Central Commission for Breed Improvement (CCBI). The regulation of their functioning is mandated to subsidiary legislation. The reproducers of a breed centre can be used as biological material by the centre itself or by other specialized centres approved by the MoAF. The distribution of the biological material is carried out by organizations or associations authorized by the Central Office of the genealogical book, which is attached to the MoAF.

(iv) Article 2/f regulates the import and export of the male reproducers (living animals or biological material), which should be approved by the Central Office of the genealogic book according to the criteria approved by the CCBI.

(v) Article 2/g defines the CCBI, which is also mentioned by Law "On the Livestock Service". The CCBI is established within the authority of the MoAF and is

headed by the Minister. While its functioning should be regulated by subsidiary legislation to be approved by the Minister of MoAF, this law only defines its main functions which are:

- the proposal of amendments of legislation on breed improvement;
- the establishment of the criteria to be used in the genealogical book;
- the preparation of regulations on the herds and breed centres;
- the establishment of criteria that should be met by the pure-breed reproducers in order to enter the genealogical book;
- the testing of the breeds created in the country and the definition of programmes for their conservation and development; and
- the approval of the methods for genetic evaluation of the pure-breed reproducers.

(vi) Article 2/h defines as offences:

- the insemination using unapproved biological material and reproducer;
- the registration of animals in the genealogical book without following the established criteria; and
- the import and export when done contrary to the approved criteria or when the reproducers for biological material is used by the approved structures or by approved physical or legal persons

### 3. Law No.8702 dated 1.12.2000 "On the Animals and the Livestock Farms Identification and Registration"

The objective of the law was: to regulate the agricultural animals' transfer by using their individual identification; to register the livestock farms and to supply them with registration numbers; to rapidly and accurately exchange data regarding the animals location for veterinary, zootechnical and statistical purposes; and to regulate the relationship between the responsible institutions and livestock farms owners.

The law deals with:

*Definitions:*The most important terms for the purposes of this law are: "identification" which means the individual distinguishing numbers given to each animal according to a certain code; "individual card" which is the certificate with the entire individual, genealogic and veterinary data of the animals.

*Administrative Structures:* The MoAF organizes and controls (inspects) the implementation of the animals' identification and farms' registration. While the livestock and the veterinary inspectorates are the responsible bodies for the implementation of this

program. For this reason local government structures jointly with those from the Ministry of Public Order cooperate with the MoAF. Their separate responsibilities should be determined by governmental decisions. The cost of carrying out the identification should be covered by the state budget or donations. The MoAF determines the procedures to be followed during identification and registration.

The register of livestock transfers for a single farm should be kept by the owner of the farm, while the register for the identification of all livestock farms should be kept by the livestock and veterinary services in the regional agricultural directorates. For each transfer of the identified animals, the authorities responsible are the National Register of Identification and Registration of the Animals and Livestock Farms.

The Ministry should issue a regulation to define the identification code, which shouldn't have more than 14 characters, matriculation model and its composition; the model of farm register and the respective card; the most appropriate time for the imported animals identification; the minimal number of the animals that can compose a farm, and the ways of completing and transferring the individual cards.

*Inspection:*The state inspection organs are the Livestock Inspectorate and the Veterinary Inspectorate.

*Offences and Penalties:*It's an offense to: reject the animals' identification or not to respect the timeline set for matriculation; transfer animals in slaughterhouses without properly notifying the competent authority; transfer of identified animals without the individual cards, and non-completion of the transfer data in the national register.

**4. Law no. 9587, dated 20.07.2006 " For preservation of biodiversity"**

This law aims to:

(i) ensure the protection and conservation fo the biological diversity

(ii) regulate sustainable use of all components of biological diversity, through the integration of key elements of biodiversity strategies, plans, programs and decision-making at all levels.

The law governs in general, matters relating to the protection of biodiversity, focusing in particular on genetic resources belonging to the wild flora and fauna, environmental conservation and protected areas. The law defines the Ministry of Agriculture as the main authority responsible for the protection and utilization of farm animal genetic resources[100]. Issues related to the preservation of indigenous breeds and varieties, important for food and agriculture are treated in Chaper VI, Article 29-31 .. Article 29 "Conservation and

[100]Law No. 9587, dated 20.07.2006, Article 6. "The Ministry of Agriculture, Food and Conusmer Protection os the main responsible authority for ensuring conservation and sustainable use of authoctonous breeds and varieties, important for food and agriculture".

use" defines government, nonprofit organizations, physical persons and public or private legal entities as the responsible institutions with the right and duty to maintain (*in-situ* and *ex-situ*) and use consistently indigenous breeds and varieties, important for food and agriculture. This article classifies conservation and sustainable use of indigenous breeds and varieties, important for food and agriculture, as part of the strategies, plans, programs and decision-making at national and local level. Article 30 establishes that the Ministry of Agriculture and Consumer Protection is responsible for the registry of indigenous breeds and varieties important for food and agriculture. According to the law, guidelines approved by the Minister of Agriculture, Food and Consumer Protection shall define formats, criteria for registration and cancellation and rules for data managment and use. Ministry of Agriculture, Food and Consumer Protection should develop integrated national policies for the conservation and sustainable use of indigenous recorded breeds and varieties, important for food and agriculture.These policies are adopted by the Council of Ministers (article 31).This law, also treats issues related to the right of use, access and benefit sharing of genetic resouces.The right to use can be exercised only if the entity concerned, public or private has taken the respective environmental permit, regardless of the scientific, economic benefits and other purposes. In any case, in order to exercise this right, the law requires a contract between the owner of genetic resources and its users. Article 31 states: "Use for profit of a native variety cannot be done without the approval of its owner". Article 41 "... all activities exploiting and using elements of biological diversity and its components should obtain an environmental license". Article 42 "Collection from *in-situ* resources and the use of large quantities of plant, animal and microbial material, genetic or other biological molecules and the respective accompanying data is prohibited without the environmental permit". Article 43 "The use of low amounts of plant, animal, microbial material, genetic or other biological molecules and the respective data taken from *ex-situ* sources, owned or funded by the state, is done through a material transfer agreement." Article 44 "state entities issuing authorization, require to the user the environmental permit for the subsequent use of the material and a monetary and non-monetary benefits sharing agreement".

Law no. 9587, dated 20.07.2006 "For Preservation of biodiversity" is one of the first legislative efforts in Albania to implement the CBD objectives relevant to the fair and equitable sharing of the benefits arising from the utilization of genetic resources.

### 5. Law no. 9426, dated 20.01.2008 "On Livestock Breeding"

In regard to animal genetic resources, the purposes of this law is its protection, improvement and conservation through conservation programs (*in-situ*, *ex-situ in vivo, ex-situ* cryoconservation) and sustainable use[101]. The adoption of this Law repeal Law No. 7627 of 21.10.1992 "On the Livestock Service" and Law No. 8409 of 25.09.1998 "On the Pure bred Reproducers and of Livestock breeding stocks" and some articles of Law no. 8411 date 01.10.1998 "Animal Feeding".

The purposes of this Law are:

(i) protect, improve and conserve the livestock genetic resources quality,

(ii) increase the livestock production and improve its quality and

(iii) conserve the genetic variation of farm animals.

The Act regulates the following matters:

(i) livestock conditions and practices for a good breeding, methods and technologies for animal breeding and feeding

(ii) criteria for preparation and approval of breed programmes;

(iii) gene funds and native breeds;

(iv) professional services in the area of animal breeding;

(v) establishment and administration of gene banks;

(vi) establishment of breeders' associations; and

(vii) trade in breed materials;

Some of the most important issues on conservation of FAnGR are listed as follows:

#### *a. Breeding improvement programmes*

In terms of Article 26[102], breeding improvement programmes should specify the breeding objectives, the size of the population, the rearing and breeding methods, and the development and research tasks. Such programmes should also ensure the genetic improvement and the quality of animal products. Any animal or breed can be object of

[101]Kume, A. Reflection on the Albanian legal frameworks and policies relevant toFarm Animal Genetic Resources. Journal of Biotechnology … Zemun, Belgrad, Serbia

[102]The law no .9426, date 28.01.2008, Chapter III. Breeding programs, improvement and conservation of farm animal features, Article 26, Breeding improvement programs:

1. The breeding program shall define the breeding objectives, population size, methods of growth and reproduction, selection, development and the objectives of the research measures for an effective breeding of farm animals, extent of genetic improvement, quality improvement of the livestock products, conditions for coordination and use of the breeding programs services according to zootechnical standards.

2. .... Zootechnical standards of farm animals are defined by regulation of the Minister of Agriculture, Food and Consumer Protection.

3. Breeding programs are designed by specialized institutions and animal breeding organizations and are approved by the Minister of Agriculture, Food and Consumer Protection, based on the opinion given by the Livestock Committee.

4. Breeding programs are implemented by specialized institutions and animal breeding organizations. Any type or breed of farm animal may be subject of one or more breeding improvement programs.

one or more breeding programmes. A breeding programme shall be in force for not less than 5 years. The breeding programmes shall be prepared and implemented by the specialized institutions and breeding associations and shall be approved by the Ministry of Agriculture, Food and Consumer Protection (MoAFCP) based on the initial opinion of the MoAFCP`s Livestock Committee.

### *b. Conservation of genetic variability*

In terms of Article 58[103] on conservation of genetic variability and genetic reserves of farm animals, the Republic of Albania shall establish and maintain genetic reserves for individual species, breeds and lines of farm animals in form of a minimum number of farm animals, doses of semen, ova and embryos. For the purpose of conservation of breeds and/or lines, and in order to ensure sufficient production of animal products, the breeding programmes shall ensure the genetic variability of farm animals. The procedures shall be defined by the government while the funds for this purpose shall come from the state budget.

According to the law, the Government's programme for the animal biological diversity conservation shall aim at the:

- Conservation of all breeds of farm animals breed in the territory of Albania, with special emphasis on the indigenous breeds;
- Establishment of the gene bank for animal breeding;
- Education and training in the field of conservation of biological diversity in animal husbandry;
- Promotion of public awareness concerning the importance of the conservation of biological diversity;
- Coordination with other programmes in the agriculture sector.
- Programmed timeframe
- Financial resources needed for the programme.

Based on Article 59, the public service responsible for the establishment and the functioning of the gene bank shall monitor the livestock diversity through surveys and systematic analysis.

[103]The law No .9426, date 28.01. 2008. Article 58 Preservation of genetic variability.

1. Republic of Albania holds and provides genetic resources, in a minimal number of animals, doses of semen, eggs and embryos, for specific species, breeds and lines of farm animals,

2. For breeds and/or lines conservation purposes and to ensure the sufficient animal production, the breeding program provides genetic variability of farm animals.

3. Funds for conservation and maintenance of genetic recourses are provided by the State Budget and/or private donors.

4. Modalities and procedures of conservation and maintenance of genetic recourses are defined by the Council of Ministers.

### *c. Conservation of indigenous breeds*

In term of Article 60, the indigenous breeds[104] shall be under a special protection regime by the government, which should promote and support livestock products. In addition to the breeds listed in the law, the Minister has the power to add other breeds to this list, following the request of a Minister-approved organization or institution. The indigenous breeds should be protected at the national and international level in accordance with the international agreements and conventions of which Albania is part.

**II. Secondary Legislation:**

Decision no. 219, on 16.05.2002, amended "For protection of the buffalos indigenous breed from extinction"

Decision no. 857, on 17.12.2004 "For the support of livestock breed centers"

Decision no.1708, on 29.12.2008 "For the implementation of *In-situ* conservation breeding programs for small ruminants"

**III. Soft law**

Regulation no. 3, on 10.03.2000 "On Functioning of the Animal Genealogic Book"

Regulation no. 13, on 12.1.2002 "On Animal Reproduction"

Order no 300, on 08.10.2010. "Regulation on evaluation methods for production and other features measurement and fo r assessing the genetic value of pure-bred reproducer of bovine species".

Order no. 83. on16.03.2010 "Regulation on Animal Breeding Organizations".

Orderno. 303. on 04.11.2011 "Regulation on zootechnical standards for pure-bred reproducer of bovine species".

Order no. 318. on 14.11.2011 "Regulation on zootechnical standards for pure-bred reproducer of sheep and goats species".

1. **Decision no. 219, on 16.05.2002, amended "For the protection of the buffalos indigenous breed from extinction"**

The decision declared buffalos breed as being 'at a critical stage of extinction" (the critical stage = 100 female and 8 male reproducers) and establishes an assessment committee at the MoAF to do the physical counting of the buffalos and their conditions assessment. The farmers that were breeding male and female buffalos reproducers were entitled to financial subsidies paid by the Regional Livestock Directorates for a minimum of a five years period. The cost is to be covered by the MoAF budget.This Decision anticipates the

[104]Indigenous breeds as listed in Article 60: indigenous cattle, indigenous buffalos, indigenous sheep and its ecotypes, indigenous goats and its ecotypes, indigenous pigs, indigenous ducks, chicken, turkeys, horses, donkeys and bees.

rate of subsidies equal to: 400 Euro/female and 640 Euro/male. The rate has changed after 2003. Actually the rate is 150 Euro/female and 200 Euro/male. During a 10 years period, 2002-2012, size population of Albanian buffalo has increased up to five times more.

2. **Decision No. 857 dated 17.12.2004 "For the support of the livestock breed centers"**

This governmental Decision is issued within the framework of the Law "On Livestock Service" and the Law "On Pure-breed Reproducers and Breed Herds". It specifies the requirements that should be met by the breed centres, in order to be approved as such, and the responsibilities of the competent governmental authorities.

According to this Decision, the Livestock Production Directorate within the MoAF is the authority responsible for keeping and administering the breeding centres registers. It also reviews the centres breeding programme and submits to the Minister the request for its approval.

The breed centres should accomplish specific objectives and meet specific requirements, as follows:

- Breed pure-breed animals, and in particular not less than 40 pure-breed cows, 50 pure-breed pigs, 100 pure-breed horses, 10000 chickens, etc;
- Define a 5-year breeding programme approved by the Minister of MoAF;
- Address the animals' needs for feeding and sheltering; and
- Keep periodical data on the genealogy and animals' fertility.

The MoAF signs 5-years detailed agreements with the breed centres. The MoAF, in collaboration with Livestock Research Institute, supports the implementation of the breed centres programme and provides financial support for vaccination, insemination and the biological material needed for the insemination of the breed herds. Each year, the Minister establishes a special commission to supervise the implementation of each programme and the appropriate use of funds.

3. **Decision no.1708, on 29.12.2008 "For the implementation of the *In-situ* conservation breeding programs for small ruminants"**

The decision states that programs for *In-situ on farm* conservation shall apply to all indigenous breeds of sheep and goats stated *at risk of extinction*. The criteria used for assessing the risk of extinction is based on the effective number of pure-bred reproducers (Ne), in accordance with the condition provided by FAO. The decision provides, for the the risk assessment, the establishment of the State Assessment

Commission at the Ministry of Agriculture.This Commission cooperates with the Regional Assessments Commissions.For each male reproducer involved in programs for *in-situon farm*conservation, the states pays a subsisdie of 21.5 Euro / year and for each female reproducer 14.2 Euro / year. The budget is provided by the Ministry of Agriculture. For the same breed / ecotypes, the subsidy continues for at least 4 years.The National Payment Agency is in charged of the payments.

**4. Regulation No. 3 dated 10.03.2000 "On the Functioning of the Animal Genealogic Book"**

This ministerial Regulation was issued within the framework of the Law "On Pure-breed Reproducers and Breed Herds". It specifies the content of the Genealogical Book as well as the structure of the competent administrative authorities.

The Genealogical Book (GB) contains livestock information on which basis the breeding programmes and breeding improvement strategies are prepared with the aim to conserve and increase the economical and genetic value of animals. There are Central and Local Offices of GB. The regulation also specifies which data should be kept in the GB according to different breeds.

The implementation institution is the Central Office with its operators, local offices and experts group, the breeders, inseminators and specialists associations, while the inspection organ is the Livestock Inspectorate. The regulation also describes the bilateral responsibilities of the institutions and associations involved in this process.

**5. Regulation no. 13, on 12.1.2002 "On the Animal Reproduction"**

This Regulation was issued within the framework of the Law on "Livestock Service" and the Law "On Pure-breed Reproducers and Breed Herds". It mainly refers to the natural and artificial insemination criteria.

Concerning the controlled natural insemination, the male reproducers should comply with some criteria in order to be used for natural insemination such as:

(i) be easily identifiable;
(ii) be registered in the right section of GB;
(iii) have a sanitary certificate issued by the local veterinary service; *and*
(iv) have a certificate issued by the biological centre for the biological material quality.

A permit by the Regional Livestock Inspectorate shall be obtained in order to establish a centre for the controlled natural insemination. This permit is valid for one year and can be renewed. The insemination centres shall have suitable spaces and guarantee the

necessary veterinary measures against diseases. Its technical staff shall have regular education and professional experience.

Regarding the artificial insemination, the structures involved are the semen production centres (responsible for semen collection, control, packaging, storage and distribution) and the distribution centres (responsible for the distribution of semen and frozen embryos). The semen production centres are established only after a license provided by the Livestock Production Directorate. The semen distribution centres are established only by obtaining a permit issued by the Central Office of the GB. The Livestock Production Directorate, through its Livestock Inspectorate, inspects and controls the legality of the permits issued by the GB.

6. **Order no. 83. on 16.03.2010 "Regulation on Animal Breeding Organizations"**

This Regulation defines the conditions for the establishment of breeders organizations that maintain or establish genealogical book for pure-bred reproducer of cattle, sheep, goats, pigs and hybrid swine, registered equine and bees.

The breeders organization must prove that it is legally established, following the requirements of the amended law no. 9426 dated 6.10.2005 "On Livestock Breeding".

7. **Order no 300, on 08.10.2010. "Regulation on evaluation methods for production and other features measurement and for assessing the genetic value ofpure-bred reproducer of bovine species"**

This Regulation defines methods for: (i) measuring and evaluating production and other features, (ii) assessing the genetic value of pure-breed reproducer of bovine species, (iii) databases on production and other features and (iv)data exchange.

8. **Order no. 303, on 04.11.2011 "Regulation on zootechnical standards of pure-bred reproducer of bovine species"**

9. **Order no. 318. on 14.11.2011 "Regulation on zootechnical standards of pure-bred reproducer of sheep and goats"**

This regulation sets general zootechnical standards and conditions for breed material trade (pure-bred animals of cattle, sheep and goats species, semen, ova and embryos). It establishes the animal species and pure-bred reproducer Book. In Albania the pure-bred trade of cattle, goats and ships is allowed only in compliance with this regulation, and by being equipped with the breed purity and genealogical certification.

**About the limitations of current legislation on *in-situ* and *ex-situ* conservation of Farm Animal Genetic Resources**

Actually, Law No 9426, of 28.01.2008 "On Livestock Breeding", Decision No. 219 of 16.05.2002, amended, "For the protection of the buffalos indigenous breed from extinction" and the Decision No.1708, on 29.12.2008 "For the implementation of the *In-situ* conservation breeding programs for small ruminants", are the only legislative products specifically regulating management and conservation of FAnGR, which carries out only partially the provision of article 27, 4 (a) of the Commission Regulation (EC) No 1974/2006 of 15 December 2006. The "Livestock Breeding Act" is quite comprehensive on this regard and is the only part of legislation which could implement some of the provisions of the CBD and the above Commission Regulation (EC), as far as conservation and protection of livestock genetic resources is concerned[105].

Article 58 of the "Livestock Breeding Act", entitled "Conservation of genetic variability", states that the Republic of Albania holds and provides genetic resources, in a minimal number of animals, doses of semen, eggs and embryos, for specific species, breeds and lines of farm animals. For breeds and/or lines conservation purposes and in order to ensure the sufficient animal production, the breeding program provides genetic variability of farm animals. Funds for conservation and maintenance of genetic recourses are provided by the State Budget and/or private donors and the modalities and procedures of conservation and maintenance of genetic recourses are defined by the Council of Ministers. The funds for this purpose shall come from the state budget.

This provision prepares the necessary terrain for further developments of all issues related to the conservation of farm animal genetic resources.In particular, it can serve as a legal base for drafting the regulatory framework. This framework should regulate the establishment and operation of different structures, infrastructures and institutions that will implement programs for *in-situ* or *ex-situ* conservation of local breeds at risk of extinction.

Article 59[106] sets out the basic principles for the implementation of programs regarding

[105]Kume, A. Analysis of the Albanian national Legislation in the light of the international legal framework relevant to the conservation and use of Farm Animal Genetic Resources. Procedding book VII[th] International Symposium Biodiversity

[106]Act No 9426, of 28.01.2008 "On Livestock Breeding", Article 59 "Biological diversity in farm animal breeding"

1. The preservation of the biological diversity in animal breeding is implemented as a public and / or private service, in the quality of the gene bank gene, in accordance with NBP.

2. The farm animal biologic diversity preservation program contain:

a) preservation of all farm animal breeds rearing in the territory of the Albanian Republic, preserving particularly autochthonous breeds at their natural environment.

b) establishment and functioning of genetic bank in animal breeding;

c)education and training for preservation of the diversity in animal breeding;

conservation of biological diversity in farm animals. Referring to article 30 “National Breeding Programm (NBP)”,the Republic of Albania, in order to protect animal genetic resources, to ensure variability and animal genetic improvment and maintain the minimum number of animals necessary to prevent the risk ofextinction, compiles theNational Breeding Programm (NBP), which is implemented as a public service in agriculture. The Ministry of Agriculture is responsible for financing and implementating the NBP. For each NBP is foreseen the establishment of a Genetic Bank. These Genetic Banks are conceived and shall operate as a tool for the protection of the biological diversity in FAnGR.

Referring to provision 2(a) art. 59, it can easily be noted, that the “Genetic Bank” concept, is used inthe most general terms possible. As such, it is considered as a final product, obtained by a set of actions, provided by the NBP.The provision 2(a) provides the establishment of genetic banks for all species/breeds of indigenous, local and exotic animals, regardless of their situation (being at risk of extinction or not). Such liberal vision derives from the definition that the law has given to the genetic bank concept. In fact, this solution does not create real possibilities for effective developments.The intangibility associated with this concept, as well as the very large areas of application, makes its implementation quite hard.

Moreover, the Genetic Bank, considered as a public service tool for the protection of the biological diversity in farm animals, is required to be establish and operate, according to article 59, in compliance and as an integral part of the breeding program. Meanwhile, referring to article 26 and 30, the time lasting of a breeding program is limited. Therefore, the provision 59/2dh stipulates, that the time lasting of the biological diversity program shall be the same with the one of the breeding program.Consequently, by the end of this time, the law provides the interruption of the Genetic Bank activities. Such consequence, contradicts the role of the “Genetic Bank” as an institution and tool for the protection of animal species stated at risck of extinction.

The current Albanian legislation treats only in general terms problems regarding *in-situ* conservation of FAnGR. The issues arising from the necessity of meeting the requirements of international documents and/or issues addressed by EU legislation are not detailed and fully developed. The national legislation does not give any answer to the

ç) public awareness toward the importance of biological diversity preservation;
d) links with other agriculutural programs;
dh) program time-lasting;
e) program financial resources.

3. The Zootechnical Service and Livestock Committee monitor the livestock diversity through systematic observation and analysis of the biological diversity state.

following questions:

Which public or privat institutions should be responsible for drafting and implementing *in-situ* conservation programs?

What are the criteria to be met in order to place a species under *in-situ* conservation regime?

Which should be the means and infrastructures that must be implemented in order to develop the necessary capacities for *in-situ* conservation of FAnGR?

This legislation is not constructed in order to achieve full integrity of the legal conditions and/or regulations necessary to establish the legislative background, on which can be processed and developed policies and action plans that can enable:

(i) Identification and monitoring of situations that characterize the development of biodiversity and the processes or activities which may have negative effects on the conservation and sustainable development of biodiversity.

(ii) Capacities development for *In-situ* and *Ex-situ* conservation of FAnGR.

(iii) Equitable access and effective recognition of every species/breeds at risk.

(iv) Elaboration of integrated policies in line with, the potential opportunities of *in-situ* conservation and sustainable use of biodiversity processes, and with the entirety of the activities and development in other key sectors of the economy and the socio-economical and political development programs.

(v) Exchange of information and the regulation of the access right.

(vi) Recognition and acquisition of methodologies necessary for implementation of *in-situ* conservation and necessary infrastructure for their transfer.

(vii)Technical and scientific cooperation in the field of c FAnGR onservation.

Farmers play a primary role in the success of *in-situ* conservation programs. Support, in order to develop the necessary capacities for these programs implementation, is one of the main objectives to be achieved[107]. These issue is addressed only partially by the actual legislation. In this legislation farmers cooperation, which is one of the basic conditions that must be met to enable the implementation and success of *in-situ* conservation programs of native breeds at risk of extinction, is treated only as an issue to be assumed. Legislation refeers to this problem only in the context of NBP implementation needs. For the implementation of these programs the law identifies the breeders organizations and other specialized organizations as the nationally approved

[107] Papa, L. 2009.Conservation and Management of local animal rare breeds. VI$^{th}$ International Symposium – Biodiversity - conservation and sustainable use key factor for rural development. Tirana, 29 September, 2009. Proceeding book p. 123-128

livestock organizations[108]. These organizations should be approved by the Minister and should comply with different requirements as set by the law (e.g. compliance with organizational and technical requirements, presentation of a breeding programme, control of a certain number of animals, etc). This legal framework is assumed to apply also during the implementation of *in-situ* conservation programs. This is only a partial solution because *in-situ* conservation programs have distinct features from the NBP. These programs need specific economic, technical and infrastructure tools. In order to enable their activation and use, relevant legislative developments are needed and among them, the most important is farmers cooperation encouregment.

Also Law no. 38 dated 05.04.2012 "On agricultural cooperation societies" can serve in addition to the requirements of the law cited above. This law treats in detail issues concerning farmers cooperation. It defines:

(i) rules, terms and conditions for the establishment and management of agricultural cooperative societies,

(ii) rights and obligations of founders and members,

(iii) society reorganization and dissolution,

(iv) criteria for certain aspects of their activity.

In accordance with this law Agricultural Cooperative Society is a voluntary agreement between physical or legal persons, in order to meet their needs or interests in the field of production, processing and marketing of agricultural and livestock products. Referring to the activity of these societies, it is difficult to identify facilities and opportunities offered by them fort the implementation of FAnGR *in-situ* conservation programs. The relevant legal provision emphasaises the types of activities to be implemented in order to increase opportunities for greater economic benefits for farmers communities. The use of farmers cooperation, as an opportunity for the successful implementation of *in-situ* conservation programs for breeds stated at risk of extinction, can be treated only referring to article 4(d) of this law[109].

[108]Law No 9426 of 28.01.2008 "On Livestock Breeding", Chapter V. Organization on livestock. Article 75-80

[109]Law No. 38 dated 05.04.2012 "On Agriculture Cooperative Associations". Chapter II.The activity of Agriculture Cooperative Associations. Activities

Article 4

The Agriculture Cooperative Associations are divided, according to their activity, in several types as follows:

a) Cooperative Associations in the field of agricultural production and marketing. These associations can produce, manipulate, process, preserve, classify, transport, distribute and trade agricultural or livestock products in their natural state or already processed.

b) Cooperative Associations for agricultural labor. These associations may carry out agricultural work for members or third parties, including members' employees.

c) Cooperative Associations for goods consumption. These associations may carry out goods supply and services purchased by members, third parties or produced by the association, for members or third parties use and consumption.

The "Genetic Bank" concept used by Law no. 9426, on 28.01.2008, in the case of the *ex-situ in vivo* or *ex-situ in vitro* of biological diversity conservation programs produces a nonsenc product. This law does not contain any specific disposition that provides the *ex-situ in vivo* or *ex-situ in vitro* (cryo conservation) conservation for local breeds declared at risk of extinction as a function or a responsability of the "genetic bank". This issue is treated only in general terms. It is addressed by the provisions regarding preservation of the genetic diversity in farm animals, but it states only about the *in-situ* conservation, stressing that, "Programs for protection of the biological diversity of farm animals includes: a) protection of farm animals breeds bred in the Albanian territory, protecting in particular, indigenous breeds at their native environment[110]. Even the specific provision for the indigenous breeds, (Article 60: Indigenous farm animal breeds are placed under special State protection and the State promotes and supports their typical livestock products), does not contain any statement related to the need of *ex situ* conservation as a complementary action of the in *in-situ* one.

Article 60/5 establishes that the protective measures for the indigenous breeds at extinction or at risk of extinction are defined by the decisions of Council of Ministers.This provision can be considered as an opportunity for further developments of the legal framework. In fact, Council of Ministers acts, guidelines, regulations and orders of the Minister of Agriculture, may serve as the legal source for the establishment and the operation of the necessary structures and infrastructures for the implementation of *in-situ* or *ex-situ* methods.

In international documents the legislation that supports *ex-situ* conservation of FAnGR it is usually named, establishment and management of genebanks or cryo-conserved genetic material. This is due to the fact, that the instrument used by the *ex-situ* conservation programs is the genetic cryobank. Consequently, in order to draft an adequate legislation, it is necessary the use of concepts such as, semen, oocytes and embryos, body tissues, blood and/or somatic cells etc. Law No 9426 of 28.01. 2008 "On Livestock Breeding" contains specific provisions that deal with these concepts and other issues related to them, such as production, collection storage and use (Article 29 "Semen", Article 40 "Oocytes and embrios", Article 55 "Collection of embryos"). However,

ç) Cooperative Associations for inputs. These associations can buy, process, produce and fabricate by any type of process food for livestock, fertilizers, plants, seeds, phytosanitary products, materials, instruments, machinery, plants, animal products and any other product, necessary and appropriate for the development of agricultural and livestock production development.

d) Cooperative Associations for for other scopes in the agricultural field. These associations may exercise any other activities necessary to improve and facilitates economic, technical, environmental and working conditions of any farmer or economic operator, which operates in the agriculture and livestock field.

[110]Law No 9426 of 28.01.2008 "On Livestock Breeding", Article 59/2/a

there is no provision which foresees their utilization as material that may serve to conserve *ex-situ in vitro* animal breeds stated at risk of extinction.

The Albanian legislation and/or the regulatory framework does not contain any statement regarding the *ex-situ in vivo* conservation as an alternative for the conservation of local animal breeds at risk of extinction.

The lack of human and financial capacities for the implementation of *ex-situ* conservation methods, as well as the weak attention of the public authorities in order to develop these capacities, are among the main factors influencing the current situation of the Albanian legislation in this field. Consequently the current legislation does not give the necessary attention to this issue.

For developing countries, which have limited capacities for the implementation of the *ex-situ* conservation methods for local animal breeds at risk of extinction, is recommended, as an emergency solution, the establishment of Somatic Cell Cryobank (Groeneveld, E. *et al*, 2008)This is acost-effective *ex-situ* conservation program. The method to acquire diploid cell material, tissue samples (ear clippings), is easy. The Albanian National Action Plan foresees the establishment of Somatic Cell Cryobankbut, but there is no provision in the current legislation omn which to base the establishment of this bank. The international experience and the legislative solutions adopted by different countries, particularly by developing countries, highlight the fact that, in order to realize implementation of Somatic Cell Cryobank, is necessary to clarify, before samples collection, all issues regarding ownership. The legal and regulatory framework necessary for the establishment of the Somatic Cell Cryobank should contain the entirety of the storage conditions and documentations (storage facilities and rules, data management and documentations, genebank security, special sanitary arrangement and legal issues related to genetic material and data).

Albania has already started the establishment of *ex-situ in vivo* genetic bank conservation for animal breeds, that are declared at risk of extinction. Actually, there are two herds, with about 60 animals each, with native sheep breeds “Shkodrane” and “Lara e Polisit”, that are at risk of extinction. A small heard with 5 cows and 1 bull of the authocthonous cattle breed “Ilyric Dwarf cattle” named “Prespa Cow” was implemented. This Genetic bank with live animals, in legal terms, is a public asset.The animals are purchased from farmers. After this point the animals and their offspring are considered public property. It is important to note, that for the establishment and operation of this bank no legal framework was adopted or drafted. The decision to establish it, as a structural unit inside the Agricultural Technology Transfer Center, Korce, was based on Article 58, 59 of Law

No. 9426 of 28.01.2008 “On Livestock Breeding”. In these conditions, it is necessary the development of a specific legal framework that must treat issues related to:

(i) status of a National Genetic Bank for *ex-situ in vivo* conservation
(ii) conditions that a species, breed or a local population must meet in order to be part of an *ex-situ in-vivo* conservation program,
(iii) property and animals use rights,
(iv) animals inflow and outflow from the genetic fund,
(v) veterinary, prophylaxis and sanitary modalities, etc.

The National legislation for the conservation of genetic diversity provides, in principle only, the implementation of gene-bank for *ex-situ* cryoconservation of embryos, semen, oocytes, cells or tissues and/or the genetic bank for the *ex-situ in vivo* conservation[111]. In the meantime this legislation does not solve a range of issues related to the establishment and administration of the Cryobank and/or *ex-situ in vivo* conservation bank. Among them may be ranked as most important, issues related to:

(i) Ownership of gene bank material,
(ii) Need for agreements/contracts between owner of donor animal and the gene bank, addressing the transfer of the germplasm
(iii) Agreement on costs of collection, freezing, storage
(iv) Conditions for accessing the germplasm by future users
(v) Exclusion of Intellectual Property Rights claims
(vi) Clearly defined sanitary status
(vii) Statement of gene bank to follow best practices
(viii) Protection of germplasm related data

Refering to the needs for implementation of *in-situ* and *ex-situ* conservation programs, in the current legislation a queue of issues are not treated in accordance with the requirement of international documents and EU legislation. Among them the most important, which should be developed as soon as possible, may be listed:

(i) Rules for drawing up Breeds Register with a zootechnical assessment, the information that should contain this book and the institutions responsible for keeping and updating it.
(ii) Indicator that must be used to estimate the degree of endangered breed.
(iii) Information system of farm animals biodiversity – Establish the National data bank of FAnGR and cooperation with the international farm animal genetic resources databases (DAD-IS and EFABIS).

[111]The law No. 9426,date 28.01.2008 “On Livestock Breeding”, Article 58/1

(iv) International cooperation in the field of conservation of local, native, authocthonous and transboundary animal breeds.

The analysis of the legislation according to which are being implemented, in different countries of the EU or other countries, programs for *in-situ* and/or *ex-situ* conservation, has been and continues to be treated as one of the key issues within the global efforts for the conservation of genetic diversity in farm animals .Such issues are subject of discussion in Workshops, Consultations and other activities organized by different international institutions, FAO etc.[112]. By referring to these analysis and the addressed issues we can, without difficulty, identify the differences with the current Albanian legislation. So, Act No. 9426, dated 28.01. 2008, "On Livestock Breeding", which is the main legal act, and the bylaw framework carried out by the Ministry of Agriculture, Food and Consumer`s Protection does not reflect provisions in order to solve issues related to the conservation and management of the genetic variability in farm animals, such as:

(i) Criteria for the estimation of genetic variability within breeds.
(ii) Monitoring and assessment of genetic variability for individual breeds.
(iii) Monitoring and assessment of inbreeding and degree of relationship for individual breeds.
(iv) Calculation and determination of genetic reserves by types of genetic material.
(v) Ensuring and maintenance of genetic reserves by species, breeds and lines of farm animals.
(vi) Rearing conditions for indigenous breeds of farm animals.
(vi) Procedure for recognition of new indigenous breeds of farm animals.
(viii) Recognition of breeding program for new indigenous breeds.
(ix) Marketing of breeding material of indigenous breeds of farm animals.
(x) Register of indigenous breeds of farm animals.
(xi) Aims and objectives of conservation of specific indigenous and other local animal rare breeds in gene bank following the method of *in-situ* conservation.
(xii) Aims and objectives of conservation of specific indigenous and other local animal rare breeds following the method of *ex situ in vitro* and/or *ex-situ in vivo.*

[112] Animal genetic resourcesA global programme for sustainable development.Proceedings of an FAO Expert Consultation Rome, Italy, September 1989, Rome,FAO
The legal framework for the management of animal genetic resources, Background study paper no. 24, November 2004, FAO
Options and Strategies for the Conservation of Farm Animal Genetic Resources. Report of an International Workshop AGROPOLIS, Montpellier, France 7–10 November 2005
Options to guide and assist countries in developing legislative, administrative and policy measures.CGRFA/WG-ABS-1/12/4Longyearbyen (Svalbard), Norway, 11 - 13 September 2012, FAO
Workshop on National legal and institutional arrangements for *ex situ* conservation of animal genetic resources. Zagreb – Croatia. 23-26 May 2012, FAO-EAAP-ERFP

The approximation of the Albanian legislation for farm animal genetic conservation with Interantional and EU legislations requires the treatment of the above mentioned issues. To fulfil this legislative development it is necessary to take into consideration the current conditions of Albania, the actual and the middle-term capacities, as well as the experiences of countries that has joined EU recently, such as **Slovenia**[113], or going through the accession process, such as **Serbia**[114]

One of the basic problems of *in-situ* conservation is that the maintenance of the animals is not profitable, and therefore breeding these animals needs support. Conservation of biodiversity of farm animals is only for the benefit of humanity, so the community is responsible for compensation of loss of commercial profit (Crawford, 1981; Momm, 1987). Such support is the duty of the society because the activity serves its future and therefore it can be carried out by the government (public fund) and society (privat fund). To make possible this support is necessary to develop a clear, easily understandable and applicable legal framework. It is required to set up rules for the establishment and operation of public institutions (eg payment agencies). These rules must guarantee transparency in funds use.

The current legislation treats these issues only in general terms.

It exists only one provision, Article 58/3 Law No .9426, dated 28.01.2008. "Preservation of Genetic variability", that treats this issue: "Funds for conservation and maintenance of genetic recourses are provided by the State Budget and/or private donors". The disposition establishes only that public or privat funds can be used for the conservation of livestock breeds stated at risk of extinction. It emposes the Council of Ministers to decide, case by case, on the methodology and procedures used for conserving and keeping genetic reserve. This legislative practice has been followed till today in the case of buffalos and native small ruminant breeds[115]. The analysis of these decisions shows, that in fact, in both cases, they are dealing with only one aspect of the financial support for the implementation of *in-situ* conservation programs for breeds at risk of extinction. The Council of Ministers acts define only:

(i) the subsidy amount (annual fee) benefited by farmers breeding (m) and (f) reproducer,

[113]Regulation on conservation of farm animal genetic resources, Official Journal of the Republic of Slovenia, No 18/02, 110/02 – ZUreP- 1, 110/02 – ZGO- 1 and 45/04 – ZdZPKG Slovenia

[114] Preservation of genetic reserve of domestic animals and livestock biodiversity Official Gazette Republic of Serbia", No. 41/09

[115]Decision no. 219, on 16.05.2002, amended "For the protection of the buffalos indigenous breed from extinction Decision no.1708, on 29.12.2008 "For the implementation of the *In-situ* conservation breeding programs for small ruminants"

(ii) time lasting (in years) of the subsidy,

(iii) rules and institutions in charge to decide for farms to be included in the subsidy scheme, and

(iv) the method and the Agency in charge for the payments.

These two decisions of the Council of Ministers are the first and only experiences for the implementation of the legal provision mentioned above. They treat only one aspect of the financial support, that of the subsidies for male and female reproducer. Meanwhile, the support of these programs need much more than that. The Council of Minister decisions should refer to all possible aspects of *in-situ* conservation programs. In any case, they shall not be deemed to be successful only by subsidizing the farming of male and female reproducer. So, for example, the best way for the success of these programs is to maintain the genetic biodiversity through the effective and sustainable use of Livestock Breeds, by producing an added value.This means, to provide inside the *in-situ* conservation programs support for:

(i) farmers capacity development to set up and administer traditional farms, attractive for agro-tourism,

(ii) support for production processing, such as, milk, meat, wool, leather, in order to produce traditional products,

(iii) support for products marketing, development of local market with local brands etc..

The analysis indicates that the current legislation does not treat issues that can serve as legal basis for all aspects of the financial support for *in-situ* / *ex-situ* conservation programs. This is because this legislation does not give an answer to the following questions:

(i) Which mechanisms, institutions and methodologies should be used to effectively activate public funds for the implementation of FAnGR *in-situ* and / or *ex-situ* conservation programs?

(ii) Which legal instruments can make possible the activation of private funds for implementing FAnGR for *in-situ* / *ex-situ* conservation programs?

(iii) Which legal mechanisms can make possible the mutual benefit from FAnGR conservation programs?

**Legislation on conservation of FAnGR in different countries – Brief review & Comparative analysis with Albanian legislation**

Differences in the state of legal and regulatory frameworks on FAnGR conservation and management between developed and developing countries are quite substantial.

Developing countries often identify a lack of capacity as a major obstacle for the development of legislation and regulatory frameworks.[116]

With the absence of adequate human and financial resources and weak institutional and infrastructure development they need to develop legislation based squarely on their needs and possibilities (FAO, CGRFA, November, 2004 [8], FAO 2005) In Albania, as a developing country, legislation development process in field of conservation of FAnGR faces the same problems as those cited above.

In order to constitute good legal basis for development and implementation of conservation methods and use of FAnGR, the National legislation should treat, in accordance with the EU regulations and International legislation, issues related to:

(i) Ownership and Exclusive Rights in Animal Breeding,

(ii) Exchange, access and benefit sharing related to FAnGR,

(iii) Sanitary and Veterinary Regulations of FAnGR,

(iv) Information and documentation.

As it is mentioned above, the current Albanian legislation does not fully cover these issues in order to refer to all possible cases.The most treated one are those related to sanitary and veterinary regulations (Law No. 10495, of 29.09.2011 "On Veterinarian service"). Compared with others countries national legislation the FAnGR Albanian one in general, and in particular *in-situ* and *ex-situ* conservation legislation for breeds declared at risk of extinction, turns out to be the least developed in the region and beyond.

**Definition of the term "breed"**

The definition of "Breed" is yet one of the issues that continues to be part of the discussions in drafting the legal framework for the conservation of biodiversity in farm animals.The term 'breed' does not have a universally accepted biological or legal definition. In developed countries breeds are characterised by clear definitions, physical characteristics and strict definitions of purity of pedigree, typically regulated by a breed society which is backed by law. In developing countries a breed is commonly defined by local tradition, identifying physical characteristics, a geographical location or ethnic group by which it was developed[117]. FAO uses the following broad definition of the breed concept: "either a sub-specific group of domestic livestock with definable and identifiable

[116]The legal framework for the management of animal genetic resources.Background study paper no. 24, CGRFA, November , 2004.2005, FAO.

[117]S.J. Hiemstra, A.G. Drucker, M.W. Tvedt, N. Louwaars, J.K. Oldenbroek, K. Awgichew, S. Abegaz Kebede, P.N. Bhat & A. da Silva Mariante. 2006. Exchange, Use and Conservation of Animal Genetic Resources Policy and regulatory options. Centre for Genetic Resources, the Netherlands (CGN) Wageningen University and Research Centre. p.13

external characteristics that enable it to be separated by visual appraisal from other similarly defined groups within the same species or a group for which geographical and/ or cultural separation

from phenotypically similar groups has led to acceptance of its separate identity"[118].

In the efforts to standardize the technical terminology FAO recommends the definition of several breed categories[119]. In different countries of the world, these definitions are used to determine, in the respective legislations, concepts corresponding to different categories of farm animals breed.

In the **Slovenian legjislacion,** the"breed" concept means a group of geographically or regionally separated fram animals, originating from the same ancestors, sharing the same characteristics defined in breed standard. According to the adaption to local environmental conditions the farm animals are classified as local (authchothonous, traditional) and foreing (exotic) breeds.

According to Slovenian legislation *locally adapted breeds* (local breeds) are farm animals that are reared in defined geographic area and are adapted to the climatic and feeding conditions, to the structure and configuration of theland. They are divided into autochthonous and traditional breeds.

*Autochthonous (indigenous, original, primary, native) breeds* are consider all farm animals for which, on the basis of historic sources, it is proven that are originated from the Republic of Slovenia. The territory of the Republic of Slovenia was the prime geographic region for the development of these breeds. They do have the Slovene breeding documentation, where pedigree recording is found for at least five generations. Autochthonous breeds are under breeding and selection control.

[118]The State of the World's Animal Genetic Resources for Food and Agriculture [SOW-AnGR] Box 67, page 339 [FAO, 2007]).

[119]Several breed categories have already been defined in FAO documents. The *Guidelines for the development of country reports* (FAO, 2000) and *The Legal Framework for the management of animal genetic resources*(FAO, 2005) defined the following categories:

- **Locally adapted breeds**: "which have been in the country for a sufficient time to be genetically adapted to one or more of traditional production systems or environments in the country."
- **Indigenous breeds,** also termed **autochthonous** or **native breeds:** "originating from, adapted to and utilized in a particular geographical region, form a subset of the Locally Adapted Breeds."
- **Exotic breeds: "**which are maintained in a different area from the one they were developed and including breeds that are not locally adapted. Exotic breeds comprise both **recently introduced breeds** and **continually imported breeds**."
- **Recently introduced breeds: "**whose importation was within the last 5 or so generations for the species concerned, and which were imported over a relatively short period of time. These would include breeds that were imported in the recent past but that have not been reintroduced since that time."
- **Continually imported breeds: "**whose local gene pool is regularly replenished from one or more sources outside your country. Many of the breeds used in intensive production systems or marketed by international breeding companies would be in this category."

*Traditional breeds*: The animals of these breeds do not originate from the Republic of Slovenia, or the origin has not been proven by the historic sources. The traditional breeds have been continuously bred on the territory of the Republic of Slovenia for more than fifty years (equines, cattle), or for thirty years (other farm animals pecies). In addition, the existing Slovene breeding documentation proves that the pedigree of a separate traditional breed had been recorded for at least five generations. They are under breeding and selection control. The term Slovene (Slovenian), or some other Slovene geographical term are included in the name of the traditional breed.

*Foreign breeds (alochthonous, exotic)* - To foreign breeds belong those farm animals that do not originate from the region of the Republic of Slovenia, or the animals which have not been continuously bred on the territory of Slovenia for more than fifty years (equines, cattle), or for thirty years (other farm animal species).

In **Serbian legislation** the definitions elaborated from FAO are used to categorize and define the "breed" concept. The legislation provides the list of autochthonous breeds and the criteria for declaring a breed at risk of extinction[120].

The Albanian legislation does not give any definition for the "breed" concept of farm animals. It gives only the definition of "autochthonous breed", based on which are named all farm animlas with origin in the Albanian territory. Meanwhile the use of this concept in matters of law, Art.60[121], does not comply with the definition given to it. According to this provision "autochthonous breeds" are different species of farm animals, named native. This situation is a consequence of the lack of a clear definition of the "breed" concept. Consequently, the formulation of the legal framework based on which shall be developed and implemented *in-situ* and / or *ex-situ* conservation programs for the biological diversity in farm animals, faces a lot of difficulties. One of the consequences of this lack is the difficulty to classify Albanian farm animal breeds. This situation has led to the fact that this classification, as part of legislation that should address matters of conservation, genetic improvement and use of farm animal breeds, is totally missing. Currently, there is no decision of the Livestock High Council that treats such matter.

**"*In-situ*"and "*Ex-situ*" conservation in term of legal concepts**

These two concepts are fully treated in various international documents. With the

[120] Rulesof the list of genetic reserve of domestic animals, waysof preservation of genetic reserve of domestic animals, and alist of indigenous breeds of domestic animals and endangered of autochthonous breeds. Ministry of Agriculture,Forestry and Water Management, R. of Serbia Official gazette RS", no. 38/10

[121]The law No. 9426,date 28.01.2008 "On Livestock Breeding", Article 60/2

The ndigenous breeds of farm animals are native cattle, buffalo, hoofed, sheep and its ecotypes, ecotypes of goats and local pigs, chickens, ducks, geese, turkeys and bees.

objective of standardization of these concepts, as well as to enable the successful implementation of *in-situ* and / or *ex-situ* programs for farm animal breeds at risk of extinction, FAO has developed specific guidelines for each of these conservation methods[122].

According to **FAO definition**[123]:

*In-situ* conservation of domestic animal diversity, primarily involves the active breeding of animal populations for food and agricultural production in such a way that diversity is optimally utilized in the short term and maintained for the longer term. Activities pertaining to *in-situ* conservation include performance recording schemes, development ofbreeding programmes and management of genetic diversity within populations. *In-situ* conservation also includes steps taken to ensure the sustainable management of ecosystems used for agriculture and food production.

*Ex-situ* conservation means conservation away from the habitat and production systems where the resource is developed. This category includes both the maintenance of live animals and cryoconservation.

*Ex situ- in vivo* conservation is *ex-situ* conservation in which germplasm is maintained in the form of live animals. As in the case of *in-situ* conservation, it is accepted that improvement and natural selection may alter gene frequencies in the conserved population.

These definitions are used as a basis to formulate the corresponding definitions in the legislation of different countries.

In **Serbian legislation**, on the basisi of Art. 67. para 2 and Art. 69 para 2 of Law "On Animal Husbandry"[124] it is defined that the preservation of genetic reserve of domestic animals is undertaken by one of the following, ways:

1. *In-situ* or *On farm* - including conservation and raising of live animals in the production systems where they occurred or are now, and that includes both the farms and extensive production systems

2. *Ex situ* - including conservation outside of the production systems where animals are formed, which can be:

(i) *In vivo* - breeding of live animals in the zoo, nature parks, museums, research institutes, etc.;

[122]FAO. 2012. Cryoconservation of animal genetic resources. FAO Animal Production and Health Guidelines No. 12. Rome
FAO.2012 Draft guidelines on in vivo conservation of animal genetic resources. CGRFA/wg-angr-7/12/inf.6
[123]FAO. 2012. Cryoconservation of animal genetic resources. FAO Animal Production and Health Guidelines No. 12. Rome, p. 3-4.
[124] Official Gazette RS, no. 41/09., Official gazette RS", no. 38/10

(ii) *In vitro* - cryoconservation of embryos, sperms, fertilized egg cells, DNA, somatic cells and other biological materials that may be used for the reconstitution of the animals

In **Slovenian legjislation** definition of the terms *in-situ* and *ex-situ* conservation is part of the provisions contained in "Regulation on conservation of farm animal genetic resources". This regulation is drafted having regard to paragraph 4 of Article 24, paragraph 4 of Article 41, of paragraph 3 of Article 66, of paragraph 5 of Article 68, of paragraph 2 of Article 69 of the Animal Breeding Act[125].This regulation defines:

- *In-situ* conservation means in vivo conservation of farm animal genetic resources in the indigenous environment and evolution of the particular traits.

*and*

- *Ex-situ* conservation means conservation of farm animal genetic resources in a living animal (hereinafter referred to as: in vivo), or in genetic material of an animal (hereinafter referred to as: in vitro) outside the original environment.

The **Albanian legislation** does not contain implicit definitions of *in-situ* and *ex-situ* conservation of FAnGR concepts. This legislation gives only these definitions:

Art. 58 "Conservation of genetic variability" on "Livestock Breeding" Act no. 9426 dated 20.01.2008: "The Republic of Albaniaholds and provides genetic resources for specific species, breeds and lines of farm animals, in a minimum number of animals, doses of semen, ova and embryos".

Article 3 contains the "Definitions" of this Law. It defines the term "genetic reserve". It means minimum number of animals of both sexes, doses of semen, ova and embryos, which are held in trust for the purposes of breeds program in order to ensure constant genetic diversity for each specific breed and breeding of farm animals in special circumstances. Also the Council of Ministers decisions regarding subsidies for buffalo and small ruminants breeds does use the term *in-situ* conservation.

Such general treatment of the methods that can be used for storage and conservation of "genetic reserve" without a clear reference to the concepts of *in-situ* and *ex-situ*, creates a sensitive difference between the Albanian legislation and other legislations (international, EU members, not EU members). The lack of a correct and full treatment of the concepts of *in-situ* and *ex-situ* conservation methods, may entail:

(i) To different uses and meaninings of these terms in practice,

(ii) To difficulties and confusion on the differences between genetic improvement

[125]Official Journal of the Republic of Slovenia, No 18/02, 110/02 – ZUreP- 1, 110/02 – ZGO- 1 and 45/04 – ZdZPKG.

and production performances of farm animals programs with programs that have as main objective the conservation of breeds at risk of extinction.

(iii) The bypass of the continuous necessity for development of the legal framework relevant to the conservation of genetic diversity in farm animals, in general, and autochthonous native breeds at risk of extinction, in particular.

The term "Genetic reserve" is used also by the **Serbian legislation**. Unlike the Albanian legislation, this term in the Serbian legislation, is used to name the list of all breeds of farm animals. Part of this list are also the autochthonous, native and indigenous breeds, which, in accordance with Article. 69 of the Law on Animal Husbandry "are under special state care". According to this article the list of indigenous, native and autochthonous breeds is defined by a Minister Order. The Minister of Agriculture is the authority which has the duty to protect their name.

Draftig and maintaining the Breeds Register is defined as a public duty[126].

In the Albanian legislation, issues related to the register of autochthonous breeds, keeping and updating the national register for these breeds, are treated in the same form as are in the Serbian legislation. But since in this legislation are not specified technical and legal definitions, according to which should be done the classification of farm animals breeds in autochthonous, native, local, indigenous, etc. .., the implementation of provisions related to the procedures for the maintenance and up-date of this register arises lots of difficulties and misunderstandings.

This situation has caused the lack of efforts to complete the legislation with other bylaws, regulations or orders of the Minister on Agriculture, that should define rules, procedures and responsible bodies for formulating and administering the national registry for autochthonous breeds of farm animals.Their absence has brought to the inexistence of the Red Book, which shall list all breeds stated at risk of extinction. These shortages in

[126]Official Gazette Republic of Serbia, no 41/09.Law on Animal Husbandry. Art. 69

- List of indigenous breeds of domestic animals and endangered native breeds determine the Minister
- The Ministry secures the name and indigenous breed of domestic animals in accordance with the ratified international treaties and agreements.
- Autochthonous breeds of domestic animals are entered in the Register of indigenous breeds of domestic animals, kept by the Ministry.
- Registration in the Register of indigenous breeds of domestic animals is done at the request of owners of domestic animals.
- The Minister shall issue a decision on registration of indigenous breeds of domestic animals within two months from the date of application.
- Register of indigenous breeds of domestic animals are kept in electronic form and may be linked with other databases and registers kept by the Ministry.
- The Minister shall prescribe the requirements in terms of breeding and trade of indigenous breeds of domestic animals, as well as the content and methods for keeping of Register of indigenous breeds of farm animals

sub-legal framework and in its products, led to spontaneous and not well organized action plans for *in-situ* or *ex-situ* conservation.

### *In-situ* conservation program

Specific provisions for the *in situ* conservation of animal genetic resources are placed in the legislations of different countries of the world. In several countries, legislation on animal breeding contains separate chapters on conservation and sustainable use of animal genetic resources, and provides detailed descriptions of the scope and measures for conservation. In other countries, there are no specific laws but there are national conservation programmes in place that were endorsed and are financially supported by the Ministry of Agriculture[127].

At the regional level, it is worth looking at the current legal framework for *in situ* conservation of the European Union. The EU has built up a significant body of legislative texts relevant to genetic resources conservation programmes. At the regional level, the Biodiversity Action Plan for Agriculture was adopted in 2001[128]. Council Regulation (EC) No. 870/2004 implemented the Action Plan. The main aims of the programme were to:

- Finance measures to promote the conservation, characterization, collection and utilization of genetic resources in agriculture
- Promote the *in situ*/on-farm genetic resource conservation activities, which should be a mean to promote the conservation of genetic material on a transnational basis but taking into account, if appropriate, bio-geographic regional aspects.

### Slovenia case[129]

The Slovenian legislation dedicates special attention to the drafting of the necessary legislative framework for the implementation of *in-situ* conservation programs for farm animal breeds declared at risk of extinction.

The main Act addressing issues of genetic variability conservation of farm animals is Livestock Breeding Act (2002). Chapter 6 of this Act titled: “Conservation of genetic variability and genetic reserves of farm animals”. Article 66: Conservation of genetic

[127]Manzella, D., Chiarolla,C.,Hoffmann, I.2005. The legal framework for the conservation of animal genetic resources International Workshop “Options and Strategies for the Conservation of Farm Animal Genetic Resources” AGROPOLIS, Montpellier, France, 7-10 November. p.16-17

[128] The priorities of the Action Plan are: a) the promotion and support of environmentally-friendly farming practices and systems that benefit biodiversity directly or indirectly; b) the support of sustainable farming activities in biodiversity-rich areas; c) the maintenance and enhancement of good ecological infrastructures; and d) the promotion of actions to conserve local or threatened livestock breeds or plant varieties. Moreover, biodiversity conservation greatly depends on compensatory allowances for less favoured areas and agro-environmental measures, within the framework established by the Common Agricultural Policy.

[129]Regulation on conservation of farm animal genetic resources. Ministry of Agriculture, Forestry and Food, Slovenia

variability, Article 67: Biotic diversity in animal husbandry, Article 68: Indigenous breeds, Article 69: Monitoring and analysing of biotic diversity in animalhusbandry.

The Slovenian legislation defines the implementation of *in-situ* conservation programs as a task and responsibility of Livestock Breeders Organization for their respective breeds.In light of these legal responsibilities, the organization should develop a program and action plan that provides measures, in particular for:

- maintaining of populations of live animals in their natural (original) environment,
- traditional rearing technologies in accordance with sustainable development,
- maintaining the population of sufficient size to allow implementation of rearing measures,
- conditions for implementation of rearing and selection measures,
- research and identification of zootechnical and molecular-biology characterisation of indigenous breeds
- production and manufacture of traditional animal products

In this legislation is defined in detail:

(i) The purpose of*in-situ*conservation of autochthonous breeds and other breeds stated at risk of extinction.

(ii) The criteria to declare a breed at risk of extinction.

(iii) The necessary minimum number of (f) and (m) reproducer, to be held under the *in-situ* conservation program regime.

**Serbian case**

The main legal acts related to issues of FAnGR *in-situ* conservation are: Law on Animal Husbandary (Official Gazette RS no 41/09), Regulation no 110-00-00096/2010-09, 27 May 2010: “Rules of the list of genetic reserve of domestic animals, ways of preservation of genetic reserve of domestic animals, and a list of indigenous breeds of domestic animals and endangered of autochthonous breeds’ (Official Gazette RS, no 38/10) and Regulation no 110-00-100/2010-09 , 2 August 2010: “Rules on the conditions of breeding and trade of indigenous breeds domestic animals, as like content and method of management of register of the indigenous breed of domestic animals” ( Official gazette RS, no 56/10).

In accordance with this legal framework preservation of livestock biodiversity is carried out in accordance with the Program of livestock biodiversity, which will be enacted by the

Minister for a periode of five years. Program includes evaluating the situation in terms of livestock biodiversity, as follows:

(i) preservation of all breeds of domestic animals that are grown in the territory of the Republic of Serbia, especially the preservation of indigenous breeds of domestic animals;

(ii) preservation of breeds of domestic animals beyond the environment in which they arise (ex-situ conservation), or in the environment they were created (in-situ conservation) for each breed of domestic animals;

(iii) establishment and operation of gene banks in livestock;

(iv) fulfillment of international obligations;

(v) increased public awareness of the importance of livestock biodiversity;

(vi) linking with other programs from agriculture.

Program shall be determined by the amount of funds to implement the program, the method for allocating funds, as well as subjects in livestock that will be administered.

The Albanian legislation does not specifically addresses issues related to *in-situ* conservation of FAnGR. It considers these issues exhausted by the provisions related to the NPB. By considering in-situ conservation programs part of the NBP, the legislation narrows the spaces for their development. This situation leds to the loss of genetic variability in farm animals.This is a consequence of the fact that these programs are facing a great competition, particularly in terms of financial support from other programs part of the NBP that have their focus on the product development performances of genetically improved farm animal breeds. In the conditions of market economy, farmers are much more interested and motivated to be part of programs focused on increasing the production. Farmers behavior is conditioned by the current profitability. This, in principle, contradicts the *in-situ* conservation scope. Most of the breeds at risk of extinction are autochthonous, native and local breeds, which have low production indicators. Meanwhile, without promoting the economic interest of farmers, it is almost impossible to achieve success in the efforts for *in-situ* conservation of farm animal breeds exposed to the risk of extinction.

In countries like Albania, that have reduced economic and financial capacities, extremely low level of culture and awareness toward the irreplaceable (not only economic) value of the genetic diversity in farm animals, lack of experience and limited capacities to draft and implement *in-situ* conservation programs, etc.., it is necessary to develop a full and clear legal framework that treats in detail all matters (technical, financial, responsible institutions, relations between different actors, ownership rights etc..). This is the only

way to succeed in the implementation of these programs.

### *Ex-situ* conservation program

Only a limited number of countries have legislation dealing with *ex situ* conservation of animal genetic resources, namely the establishment and management of genebanks, or cyropreserved genetic material. As in the case of *in-situ* conservation, substantial efforts and activities on collection and storage of genetic material are carried out within national animal genetic resources conservation programmes[130].

In general, in EU countries the regulatory framework supporting *ex situ* conservation is developed in the context of conservation programmes. Council Regulation (EC) No. 870/2004**,** which implemented the 2001 Biodiversity Action Plan for Agriculture, contributes to establishing the European framework for *ex-situ* and *in-vitro* conservation of animal genetic resources. This framework comprises research on methods, molecular genetic characterization, breeding, technology platforms (such as EFFAB3) and genebanks.

Council Regulation (EC) No. 870/2004 lists a variety of *ex-situ* and *in-vitro* conservation activities eligible for funding. With regard to *in-vitro* conservation of animal genetic resources (semen, embryos), a web-based network of national inventories and a European search catalogue for minimum passport data should be developed. The inventory is to consist principally of the establishment, regular updating and regular publication of the facilities (storage and conservation) for genetic resources in agriculture collected in the Community, and the listing of current work on the conservation, characterization, evaluation, collection, documentation, development and utilization of those genetic resources. Minimum passport data of individual accessions may be included.

The European Regional Focal Point (ERFP) Guidelines provide a thorough analysis of the legal and technical issues that, at the national and at the international level, affect the storage and transfer of *in vitro* animal germplasm[131].

Differences in the state of legal and regulatory frameworks on AnGR management between developed and developing countries are quite substantial[132].

[130]Manzella, D., Chiarolla,C.,Hoffmann, I.2005. The legal framework for the conservation of animal genetic resources International Workshop "Options and Strategies for the Conservation of Farm Animal Genetic Resources".AGROPOLIS, Montpellier, France, 7-10 November. p. 17

[131] Hiemstra S (editor).. 2004. Guidelines for the constitution of national cryopreservation programmes for farm animals. http://www.zum.lt/agroweb/Tekstai/Guidelinest.pdf

[132]The legal framework for the management of animal genetic resources.Background study paper no. 24, FAO, CGRFA, November , 2004

**Bulgarian case[133]**

The cryoconservation in Bulgaria is performed only in the Artificial Insimination stations, managed by the Executive Director of the Executive Agency on Selection and Reproduction in Animal Breeding (EASRAB). The National genetic reserve and the National Genebank are institutionalized.

They are state property and are governed by EASRAB and for this reason are provided with a high security level, including biosafety. The semen in the National genetic reserve and the National Genebank is a state property. It is sold by the National Genebank to farmers and organizations related to the breeding process. The EASRAB goal in the near future is to conserve somatic cells and in long term perspective oocytes
and embryos.

The Bulgarian legislation treats issues related to:

(i) Property conditions for material acquisition.

The semen in the National genetic reserve and the National Gene bank is a state property. It is sold by the National Gene bank to farmers and organizations related to the breeding process:

(ii) Gathering of new material– articles and conditions (translated agreement)

(iii) Security of the genetic bank, National Genebank assess, Data management and documentation.

**Croatian case[134]**

The legal framework consist of existing legal frame (>21 laws, orders, acts,…). In the future legal regulations it is expected to be included agreements between the owner and the genebank/users. Several possibilities are discussed in order to deal with the ownership (i) can be bought, (ii) be donated, (iii) embargo. The legislation is drafted and the guidelines for manipulation with genetic material (collection, processing, storage and use of the genetic material) are defined.It already treats issues related to: costs of collecting, processing and freezing, rights of intellectual property (Genebank is public property of a State), veterinary / sanitary issues, data protection (the Genebank and Institutions decides which information about stored genetic material shall be available to the public). The Croatian legislation for *ex-situ* conservation has been developed in accordance with the regulations that are defined by the World Organization for Animal

[133] Nikolov, V., Georgiev, V., Mihaylov, I. Institutional and legal framework for *ex-situ* conservation in the R. Bulgaria.www.rfp-europa

[134] Ramljak, J., Ivanković, A., Dražić, M., Dadić, M., Jeremić, J., Šimpraga, M., Karanole, M, Pejaković, J.,Čačić, M.,Cerjanec, D. Institutional and legal framework for *ex-situ* conservation in the Republic of Croatia. www.rfp-europa

Health (Office International des Epizooties).

**Slovenian case**[135]

The most important legal document is: "Livestock Breeding Act (2002)". Chapter 6 of this Act treats issues related to: Conservation of Genetic Variability and Genetic Reserves of Farm Animals (Art.66 "Conservation of genetic variability", Art. 67 "Biotic diversity in animal husbandry", Art. 68 "Indigenous breeds"). In 2004 was approved the "Decision on conservation of farm animal genetic resources". Its Article 41 (Scope of conservation of specific indigenous and other breeds in ex-situ genebank) states: Genebank (*ex-situ conservation*) in vitro shall be established for specific indigenous and other breeds classified as critical or endangered pursuant to the provisions of the Regulation concerning genetic reserves.

The Slovenian legislation defines: Genetic reserves are determined by the Regulation on conservation of farm animal genetic resources which determines the preparation of requirements for systematic activities ensuring an overview of the minimum reserves of genetic material for each breed of farm animals

In accordance with the Agriculture Law the Republic of Slovenia shall ensure and maintain genetic reserves for species, breeds and strains of domestic animals in the form of a minimum number of domestic animals, doses of semen, ova or embryos and/or other biological material

Genetic reserves are determined by the Regulation:

(i) Storage of genetic reserves shall provide for constant verification of viability. Genetic material needs to be restocked in case of an indication of quality deterioration.

(ii) Genetic reserves of farm animal genetic resources important for agriculture shall be constantly monitored and controlled by the Public Service for farm animal genetic resource conservation.

(iii) Public service shall prepare at least once a year a report on the state of genetic reserves which shall be decided upon by the Animal Husbandry Council and

(iv) The Council shall recommend to the Minister the proposals for measures if required.

The actual **Slovenian** legal framework treats issues related to:

(a) *Data management and documentation*.

[135]Kompan,. D., Cividini, A.Cryo-conservation in Slovenia Kick-off meeting of the ERFP Working Group on *Ex-situ* conservation Bonn, ERFP, April 2011

All collected data (donor pedigree, amount of semen, and micro location of each sample) are managed by Public Service (PS) for AnGR. The data are inserted into cryoweb database.

(b) *Genebank security*

(c) *Sanitary arrangements/regulations*

According to the Regulation on conservation of farm animal genetic resources (Article 20) the genetic reserves by species, breeds or strains of domestic farm animals have to be assured and maintained. The Public Service has to assure the require amount of the genetic material for genetic reserves. The method of the conservation has to assure the quality of the genetic material. Moreover, the applicability of the genetic material needs to be checked. In case of deterioration suspicions the genetic material has to be restored.

(d) *Legal issues* (related to genetic material and data) - Ownership and IP

According to the contract between Insemination Centers and Public Service (PS) for FAnGR, the Insimination Centers preserves the semen for genetic reserves. The PS is the owner of the preserved genetic reserves in Genebank. The PS make a proposal about use of the genetic material, approval of the proposal is required from the Minister.

(e) *Collecting new material*: Articles and conditions in Material Acquisition Agreements (MAA). According the Regulation on conservation of farm animal genetic resources (Article 19) the genetic reserves has to be determined by type of genetic material. The constituent part of the genetic reserves is the amount of semen for assurance of the reproduction and insemination at critical situations. The amounts of semen have to assure the insemination at least two generation by each breed. There are several type of the genetic material for cryoconservation; semen, oocyte, embryo, somatic cells and DNA. Although valued methods of cryoconservation are preferred.

(f) *Access to Genebank*: Articles and conditions in Material Transfer Agreements.

Transfer and marketing with breeding material is arranged according the Livestock Breeding Act (Article 103). The breeding material used for transfer has to be indicated according to regulations and must have a prescribed Zootechnical document.

Developing countries often identify a lack of capacity as a major obstacle in the development of legislation and regulatory frameworks. With the absence of adequate human and financial resources and weak institutional and infrastructure development, they need to develop legislation based squarely on their needs and possibilities[136].

In **Albania**, as a developing country, the legislation development process of *ex-situ* conservation of FAnGR faces the same problems as those cited above. The current

[136]The legal framework for the management of animal genetic resources.*FAO, Legislative Study, 89, 2005*

Albanian legislation does not fully cover these issues in order to refer to all possible scenarios. The most treated one, are those related to sanitary and veterinary regulations (Law No. 10495, of 29.09.2011 "On Veterinarian service"). Compared the Albanian legislation for *ex-situ* conservation of breeds declared at risk of extinction with others countries national legislation (A.M.J. van den Dop (2010); Kompan, D., Cividini, A. (2011); Nikolov, V., *et al.*(2011); Ramljak, J., *et al*.(2011)), Albania turns out to be the country with the least developed legislation in the region and beyond.

**Rescue stations– legislation issues for implement.**

During the 2007-2010 a three year project was implemented "The European Livestock Breeds Ark and Rescue Net" (ELBARN 2007-2010), funded by the European Commission under the work programme of Council Regulation (EC) No 870/2004.The ability to act rapidly to protect endangered livestock breeds in emergencies or unforeseen circumstances is the central theme of ELBARN. The main objective of The ELBARN Ark and Rescue Centres (A&RCs) was to provide a framework for successful rescue actions – but, as it is underlined by the project document, this has to be supported by adequate national law.

The project recommends to build the Rescue stations network with the main purpose that in case of emergencies, human or natural disasters, in case of an outbreak or disease, will:

- offer emergency places for endangered genetically important livestock
- offer isolation and quarantine places for rare breeds in case of epidemics

In different EU countries the building of the Rescue stations network is in process. For this purpose these countries have drafted and are working on updating the relevant legislation. In most cases this legislation is part of the Law On Veterinary Service. In other, it is part of the FAnGR Conservation legal framework.

ELBARN recommendsto develop a special legal framework for all states that are creating the Rescue stations network. This legislation is reccomended to treat issues related to:

(i) Building a Task Force component of the Public Veterinary Service National Network, as the institution responsible for the identification, evaluation and organization of rare breeds in case of outbreak of an epidemy.

(ii) Updating the veterinary legislation by, amending the Law on Veterinary Service, drafting regulations, etc... They should provide the specific obligation for public and privat institutions to protect rare animal breeds in case of human or natural disaster and/ or an epidemic outbreak.

(iii) Forecast in the contingency fund, the necessary public funds for the conservation of rare animal breeds in the above manetioned cases.

(v) Policies development for the support of public and / or private investments of farmers, farmers groups and / or NGOs working for the conservation of biodiversity in farm animals in order to set up and administer the Rescue stations network and the quarantine centers.

(vi) Increase the level of awareness of political decision makers, veterinary public and privat services, farmers and all other stakeholders which cooperate on conservation and sustainable use of indigenous animal genetic resources.

(vii) Support for regional and crossborder cooperation in order to exchange experiences, knowledge, technologies transfer and to preserve rare and native breeds, in case of emergency situations and epidemics outbreak.

**In Serbia** issues related to the conservation of FAnGR are treated on Animal Husbandary Act[137]. Chapter X. “Preservation of genetic reserve of domestic animals and livestock biodiversity”, Article 71 “special measures in livestock in emergencies” states that in case of emergency or of imminent threat of war or natural or other disasters that threaten the preservation of the minimum number of breeding material needed for reproduction of domestic animals, or if it is to a large extent affected the biodiversity of domestic animals in the Republic of Serbia, the Ministry may order specific measures to prevent endangerment of domestic animals, such as:

(i) Prohibition of domestic animal trade

(ii) Prohibition of domestic animals slaughtering

**The Albanian** legislation does not cover issues related to FAnGR conservation in case of threat from natural or human disaster or epidemic outbreak. In case of exceptional circumstances and natural disasters, the Act "On the Veterinary Service in Republic of Albania" defines the performance measures and other procedures for diseases control and eradication[138]. Although the legislation refers to "extraordinary circumstances and natural disasters", it targets only diseases control and eradication. Neither this Act, or any other part of the current Albanian legislation contain provisions on how to organize the work in order to prevent the annihilation of FAnGR in case of natural or human disaster or

[137] Official Gazette Republic of Serbia, no 41/09

[138] Official Journal no 143, date 23.10.2011, p.6435. Law No 10465, on 29.09.2011 “On Veterinary Service in Republic of Albania” Art. 27. Measures for exceptional circumstances

1. The Minister, on the proposal of the competent authority, , in case of exceptional circumstances and natural disasters, orders measures and procedures performance necessary for the control and eradication of diseases

2. Cooperation with the Ministry of Health and local government units is required for the measures according to paragraph 1 of this Article.

epidemic outbreak. Actually Albania is missing the legal framework necessary for the establishment and operation of Rescue Stations. The public funds for emergency situations do not provide for the establishment and operation of these stations.

**Breed farms association – a crucial factor for implementing conservation programs**

Legislation on the establishment and activities of farmers' associations and breeders' societies plays a crucial role for implementing conservation programs along with incentive measures that are available for farmers and others in the livestock sector.

Breeders' societies play a very important role in breeding and rearing of animals and in the pedigree sector, taking over responsibilities for various elements of the breeding process, including implementation of *in-situ / on farm* programmes. The legislations of different European countries have different rules for the establishment, duties and operation of these associations.

The analysis of the **Slovenian**, **Serbian** and **Bulgarian** legislation relevant to the organization and operation of Farm Breed Associations, shows that, despite the differences between them, they treat in the same legal way most of the issues related to the duties and responsabilities of these associations. Some of them can be listed as follows:

(i) herd-book keeping;
(ii) organization of sales and shows;
(iii) implementation of the breeding programme and associated activities;
(iv) support in managing reproduction (especially in the case of rare breeds, where a semen bank may be run by the society);
(v) training and extension; and
(vi) organization of special events (competitions).

Some breeders' societies also run performance-recording schemes and support the marketing of special products. Farmers' organizations are involved in the organization of production, supplies and marketing. The establishment and activities of breeders' societies and farmers' organizations are regulated, so as to clarify their roles and responsibilities within the livestock sector.

The Breed Farm Association according to the Slovenian legislation is the institution in charge for implementing FAnGR conservation programs. Besides the above listed duties and responsabilities of these associations the legislations also provides a range of other

tasks related to the speficity of FAnGR *in-situ / on farm* conservation programs[139].

**The Albanian** legislation does not specifically address issues related to the development and implementation of FAnGR *in-situ / on farm* conservation programs. Act no. 9426, dated 20.01.2008 "On Livestock Breeding" treats only in general terms the role of farmers associations for the implementation of breeding improvement and mangment of FAnGR. This Act does not contain any special provision for the implementation of *in-situ / on farm* conservation programs. Although, Act no. 9426, dated 20.01.2008 "On Livestock Breeding", assigns to the Council of Ministers the task to decide on FAnGR conservation procedures and method[140]. Yet it has not adopted any decisions in order to define rules and treats issues related to the establishment and operation of the responsible institutions for the implementation of FAnGR *in-situ / on farm* conservation programs.

**FAnGR National Data-base Establishment**

DAD-IS is the FAnGR global dadabase managed by FAO. It is an open and searchable database of information about breeds, tools for management, and contacts for the National and Regional Coordinators. The National Coordinator, of FAO member states, are responsible for updating it.

EFABIS – is the European FAnGR database. Although, some Eurpean countries are not part of it and Albania is one of them. EFABIS is an open searchable database for FAnGR. Every European country that has implemented the National database can transfer it to EFABIS.

The Global Plan of Action priorities for capacity development in holding and up-dating the FAnGR information are:

**In Strategic Priority 1** *Inventory and characterize animal genetic resources, monitor trends and risks associated with them, and establish country-based early-warning and response systems* of Global Plan of Action for AnGR, FAO 2007, the Actions 6 underlines: Strengthen global and regional information systems and networks for inventory, monitoring and characterization. *Inter alia*, the Domestic Animal Diversity Information System (DAD-IS) and the Global Databank for Animal Genetic Resources for Food and Agriculture should be strengthened to obtain, evaluate and condense information from national databases and monitoring systems, and distribute this information, highlighting threats and needs.

[139] Regulation on conservation of farm animal genetic resources.Article 31 (*In situ conservation*) Ministry of Agriculture, Forestry and Food, Slovenia

[140] Law no. 9426, dated 20.01.2008 "On Livestock Breeding"Art. 58. "Conservation of genetic diversity"
Para 4. Methods and procedures for hodling and preserving genetic reserves are defined by the Council of Minister Decision.

In addition, **Strategic Priority 15** *Establish or strengthen international information sharing, research and education*, Action 4 requires to: Establish and strengthen the development of national databases to enable information sharing among countries[141].

A recent study concerning the evaluation of the establishment and management process of FAnGR National database of different European countries[142], underlines that:

- All (or almost) the countries are trying in different ways to establish their own databases
- In most cases there is no concrete plan, cost estimation and allocation of resources
- Need to develop a plan for implementation and administration

Most of the countries does not have a specific legislation concerning the establishment and management of this database. This process is considered as an activity inside the framework of the responsabilities deriving from the FAnGR legislation on conservation and management.

In the **Albanian** case, where the imatricolation and data recording system is not yet implemented and where the breeding associations capacities are insufficient, the drafting of a specific legislation to establish the National database, is a necessity. This legislation shall serve to support the efforts for:

(i) effective activation of human resources necessary for the development and establishment of the National database.

(ii) development and establishment of institutional infrastructures responsible for periodically data collection.

(iii) plan of public financial resources.

A National Committee shall be established to manage the database. This Committee shall be a public institution responsible for the organization and operation of all National database activities. It should be also responsible for setting up the National database specificities, data collection, staff training and information dissemination.

**Database and documentation – *Ex-situ cryo* conservation**

Proper and accessible documentation is vital for the future use of any stored gene-bank material. An essential aspect of this is to develop and implement a database that can be used to catalogue, summarize, query and retrieve the information needed to establish and operate the gene bank. The database will serve as the primary tool for receiving,

[141]Globan Plan of Action for Animal Genetic Resources and Interlaken Declaration. FAO, September, 2007 p.15, 30

[142]Georgoudis A. et al. 2005 "Planning the implementation and administration of a database for AnGR" EFABIS Meeting and 11th Workshop for European National Co-ordinators for the Management of FAnGR Uppsala, Sweden

storing and exchanging information about collected samples. Supported by the European Commission, the EFABIS Net Project developed the CryoWEB database tool (Duchev *et al*., 2010). This tool has already been implemented in a number of European countries and is integrated with the EFABIS breed database[143].

Refering to National Action Plan for FAnGR[144], the work for establish the Gene bank for *ex-situ in vitro* conservation, in albania has just started. If we refer to Article. 59 of Act no. 9426, dated 20.01.2008 "On Livestock Breeding", the Ministry of Agriculture is responsible for the establishment of this bank. Two Centers for Agricultural Technologie Transfert, Fushe–Kruja and Korça are responsible for the management of this bank. According to FAO Guidelines[145] because of the long-term nature of the gene bank's mission and its close relationship with the livestock sector, it may be useful to establish an advisory committee who would be to provide advice and recommendations on policies for acquiring and distributing germplasm. It would be able to provide the gene bank with advice on how contracts and, other agreements and policies, can be formulated in such a way as to garner support from industry and government. Establish of gene bank for *ex-situ in vitro* conservation must be followed by the establishment of the database. Its establishment and management is recommended to be in accordance with the criteria for the establishment and management of CryoWEB database. Meanwhile, it is necessary to adopt the specific legal framework. Referring to the Albanian conditions, this legislation should define the descriptors, that will be used to describe the characteristics of the preserved genetic material, such as: animal identification, birth date, sex, taxonomy information, environmet charachteristics, management system, phenotypic measures, genetic and breed informations. This information together with the sample one (collection date and location, sample quality, straw and storage informations, collection method, freezing protocol used and sample sanitary status) will constitute the Gene bank cryo-conservation database information[146].

**The legal issues on subsidies of endangered animal breeds**

Financial support by public funds, is one of the main factors for the success of FAnGR conservation programs for breeds at risk of extinction. To enable this support is

[143]Cryoconservation of Animal Genetic Resources.Guidelines. FAO, Roma, 2012. p.125-126

[144]Albania -National Priorities:
Develop activities for conservation (in situ, in vitro and ex situ in vivo) of native and local breeds and establish a national database for AnGR.
The national ex situ in vivo programme and the Somatic Cells Gene Bank are being built up.
http://www.fao.org/ag/againfo/programmes/en/genetics/documents/ITWG_AnGR_6/poster/Albania.pdf

[145]Cryoconservation of Animal Genetic Resources.Guidelines. FAO, Roma, 2012. p.133-134

[146]Cryoconservation of Animal Genetic Resources.Guidelines. FAO, Roma, 2012. p.127-128

necessary to develop a legal and institutional framework, as part of policies development and action plans that have as objective the achievement of strategic priorities for conservation and sustainable use of farm animal genetic resources[147].

The basic problem of preservation is that the maintenance of the animals is not profitable, and therefore the population needs support in order to prevent the extinction. A preserved population is only for the benefit of humanity, so the community is responsible for compensation for loss of commercial profit (Crawford, 1981; Momm, 1987). Such support is the duty of the society because the activity serves its future and therefore it can be carried out by the government (e.g. France) or society directly (e.g. UK)[148].

Annual subsidy for farms breeding animals of indigenous, native or local breeds declared at risk of extinction, is at the same time also one of the forms of public support for the conservation programs of genetic fund in farm animals.

**EU regulation**

Support with public funds for farm animal breeds at risk of extinction is implemented in all EU countries. Its legal base is the Commission Regulation (EC) No 1974/2006 of 15 December 2006 laying down detailed rules for the application of Council Regulation (EC) No 1698/2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), which article 27 states:

*3. Support may relate to the following commitments:*

*(a) to rear farm animals of local breeds indigenous to the area and in danger of being lost to farming;*

The eligible species of farm animals and the criteria for determining the threshold of loss to farming of local breeds are defined in Annex IV[149].

The legislative aspect of public support for endangered farm animal breeds is trated in different ways. In most cases, subsidies are provided as public funds in the framework of obligations deriving from the Livestock Breeding Act, National Plan for conservation of biodiversity in livestock or Rural Development Programms. So for example, in **Slovenia**

[147] Global Plan of Action for Animal Genetic Resources and the Interlaken Declaration, FAO, 2007

[148] Bodo., I. 1989 Animal Genetic Resources - A global programme for sustainable development. Papers presented at the Expert Consultation on FAO Programmes for the Preservation of Animal Genetic Resources, Proceedings. FAO Animal Production and Health Paper, 80.

[149] Thresholds for endangered breeds (referred to in article 27(4))

Eligible farm animal species | Thresholds under which a local breed is considered as being in danger of being lost to farming (number of breeding females [*]) |

Cattle | 7500 |, Sheep | 10000 |, Goat | 10000 |, Equidae | 5000 |, Pigs | 15000 |, Avian | 25000 |

[*] Number, calculated for all Member States, of breeding females of the same breed available for pure-bred reproduction registered in a herd book kept by an approved breeding organisation recognised by the Member State in accordance with Community zootechnical legislation.

subsidies for endangered livestock breeds is based on Agriculture Act, Livestock Act and Regulation on Conservation of Farm Animal Genetic Resources[150], in **Montenegro**: Livestock Act - National program and Action plan of conservation and sustainable use of genetic resources for food and agriculture¸ in **Serbia**: Animal Husbandry Act, Agriculture Act and Rural Development, Environmental Protection Act[151]; in **Croatia**: Livestock Act, Agriculture Act and National Programme for the Protection of autochthonous - native and protected breeds of domestic animals; in **Macedonia**: Livestock Act – Programme for protection livestock biodiversity; in **Greece**: Rural Development Programme for Greece 2007-2013, ect..

In order to implement subsidies for endangered livestock breeds, FAO recommends the establishment of National Red Book for Endangered breeds. The criteria used, in different countries, to classify the risk of extinction level are different. FAO recommends to include in the Inventory Book of Endagered Breeds (*Red Book*) all breeds that have 100-1000 female reproducers and 5-20 male[152]. The risk evaluation in Czech Republic is based on the effective population number (Ne): if Ne<1000, the population is declared "under monitor" and if Ne<400 the population is placed under conservation program, which includes subsidies[153].

Besides the criteria related to population size, different European countries use others related to: breeds geographic distribution, number of farms that breed endangered livestock, breeds economic value and / cultural etc[154].

**In Albania** the endangered livestock subsidies is based on "Livestock Breeding", Act No.9426 dated 28.01.2008. Article 58 "*The Albanian Republic holds and provides genetic reserves for special species, breeds and lines of farm animals, doses of semen, ova and embryos. The funds for the preservation and protection of the genetic reserves are provided by the State Budget and/or privat donors"* and Article 60 "*The autochthonous breeds of farm animals are under special state protection… The preservation measures for endangered autochthonous breeds are defined by the Council of Ministers Decision".*

Act no. 9426, dated 28.01.2008 repealing "Livestock Service" Act. No. 7627 dated

[150] Klopčič, M., Kompan.D.Proper way of supports for endangered livestock breedsSUBSIBREED Workshop, - Tekirdag, Turkey, October 2011

[151] Stojanovic S.Autochthonous endangered breeds of farm animal-calculated for Serbia. Proper way of supports for endangered livestock breeds (draft) p.169-175, ERFP, 2012

[152] Phenotypic characterization of Animal Genetic Resources. Guideline, p.10-11, FAO, 2012

[153] VìraM.2006. Sheep and goats in the National programme of the protection of genetic resources.Research Institute for Animal Production, Czech Republic

[154] Kompan, D., Klopcic,M. 2012. Proper way of supports for endangered livestock breedsSUBSIBREED, draft-version. p.160-178

21.10.1992, in Article 1, states that one of the main duties and responsabilities of the Zootechnical Servise is to: "*define and apply measures for the conservation and development of the genetic fund of animals, poultry, and zoo cultures"*

A comparison of these two acts shows that, during the 1992-2008 period, there have been no important developments on issues related to conservation, management and sustainable use of animal genetic resources. The most important product during this period can be considered the Council of Ministers Decision No. 219 of 16.05.2002 "On protection of indigenous buffalo race from extinction" This Decision was amended by Decision No. 299, dated 8.05.2003 and Decision No. 1634, dated 17.12.2008. These amendments changed the subsidy value (reducing it) for reproductive male and female. Decision No. 219 set the amount of subsidy 400 Euros / female buffalo and 600 Euros / male buffalo. The amendment done by the Decision No. 1634, dated 17.12.2008, reduce it to 140 Euros / female and male buffalo plus 14 Euro / fertilizing copulation and 36 Euros / young stock. The last amendment done by Decision No. 436, dated 28.4.2010 "Defining procedures and financial support methods for the preservation of genetic reserves for indigenous buffalo breed", determined the buffalo hears size reared in the farm, as the main criterion for obtaining the subsidy. According to it, only farm rearing no less than 10 buffalos, can benefit from the annual subsidy.

Based on "On Livestock Breeding" Act, the Government has adopted Decision no. 1708, dated 29.12.2008 "On the implementation of breeding programs for *In-situ* conservation of small ruminants". This decision provides the conditions and the subsidy amount for local breeds of small ruminants declared at risk of extinction.The decision provides for an annual subsidy in the amount of EUR 14.3 / reproductive (f) and 21.4 EUR / reproductive (m). The subsidy last at least 4 years. After this period, if the breed/ecotype is not endangered anymore, the subsidy is interrupted. In order to be included in the subsidy scheme, the local breed/ecotype (sheep or goat) must contain no more than 900 registered reproductive females. Because of public limited budget, the introduction of the subsidy scheme was done in accordance with the endangered risk level.

The Decision set three risk levels - *critical* <300*, endangered* 500 and vulnerable 900. In order to implement it the Decision established a National Committee and Regional Committees with the responsibility to assess the situation and the risk level for indigenous small ruminants breed/ecotypes.

The National Payment Agency is the institution in charge of distributing the annual payments. Payments are made on the basis of documents submitted by the Regional Committee.

Both the above decisions impose the Ministry of Agriculture, Food and Consumer Protection to draft the National and Regional Committees Regulation. These Committees shall act as public institutions and shall be in charge these implementing these Decisions. The Regulation approved by the Minister of Agriculture applies only to local breeds of small ruminants as part of the subsidy scheme. It is intended to simultaneously resolve several key aspects of the subsidy procedures.

According to this Regulation, farms will benefit subsidies only if they breed no less than 20 reproductive females, of the same local breed. Animals shoud be matriculated and registered in the Farm Register and in the Breeds Register.

According to the Regulation the National Committee is headed by the National Coordinator for animal genetic resources and at the regional level it provides for the establishment of *ad-hoc* Regional Committes inside the Agricutlure and Food Regional Directorates. These Committees are responsible for drafting and updating the Breeds Register, at the regional level, for all those breeds/ecotypes of farm animals part of the subsidy scheme. They coordinate their work with the National Payments Agency in order to subsidize farms that met the conditions set forth by the Council of Ministers Decision No. 1708, dated 29.12.2008.

The legislation does not define a body or institution responsible for establishing and approving the criteria according to which a livestock breed must be declared at risk of extinction. The current legislation does not explicitly define the criterion/criteria based on which the farmers can benefit subsidies. It is not clearly defined the institution responsible for monitoring the size population trend for endangered breeds. The necessary legal framework for establishing and updating the Red Book is missing. The absence of the Farm Register and Breeds Register and of those public or privat structure responsible to establish and update them, make quite hard the subsidy implementation. According to the actual legislation the subsidy amount is defined by the Council of Ministers Decision. As in the other countries of the region, the value of the subsidy varies depending on the species. While for its calculation, the Albanian legal framework has not defined specific rules. The subsidy value is determined by referring to other countries practices. Consequently also their changes have been frequent. This situation is typical in the case of the buffalo breed subsidy. For a period of about 8 years, the value of annual subsidies for reproductive animals was modified three times, reduced by about 65-75%, while the endangered risk level, presented no essential difference.

The financial support for livestock breeds at risk of extinction aims to protect them from the competition with the genetically improved breeds. This is because, in general, the

main factor of the extinction risk is the low level of productivity that have indigenous, autochthonous and traditional livestock breeds. Consequently, the subsidy is a compensation for the financial loss of farmers breedings these breeds instead of the improved ones. This circumstance requires that the subsidy amount shall be defined in order to reduce at maximum the negative economic impact of rearing unimproved breeds. This is the basic principle for calculating the subsidies
amount in EU countries[155].

Unlike other EU member states and countries of the region, the current Albanian legislation relevant for subsidies of livestock breeds at risk of extinction is treated as a separate issue. It is not part of documents and legal acts related to rural development issues, agricultural policies, livestock production development etc… Such situation has led to overpass new legislation developments and implement only short term solutions.

**Possible middle-terms developments of Albanian legislation related to *in-situ* / *ex-situ* conservation of FAnGR**

Article 59 of the "Constitution of the Republic of Albania" defines that the state shall ensure the protection of the environment and the reasonable utilization of natural resources[156]. This constitutional provision is one of the main references for developing the legal framework for the conservation and sustainable use of genetic diversity in farm animals.

The first "Status Report for Animal Genetic Resources" 2002, prepared by the Ministry of Agriculture and Food, documented the country`s existing animal genetic resources and identified the principal challenges, demands, needs, trends and national capacity building requirements related to *in-situ / ex-situ* conservation and use of the country`s declining FAnGR[157]. The Country Status Report acted as the base for the development and implementation of a National Strategy and National Action Plan of the conservation and management of FAnGR. Albania, during the period 2002-2012, has made great efforts on developing the legislativ and institutional capacities necessary for the implementation of the National Strategy and Action Plan. This was necessary because, as also stressed by

[155] In Greece - The level of support to farmers and breed associations after application according to the Council Regulation (EC) No 1968/2005 and Commission Regulation (EC) No 1974/2006 on the basis of the loss of income due to the raising of less productive breeds

[156] Constitution of the Republic of Albania Article 59

1. The state, within its constitutional powers and the means at its disposal and to supplement private initiative and responsibility, aims at: ...

d) a healthy and ecologically suitable environment for present and future generations;

dh) rational exploitation of forests, waters, pastures and other natural resources based on the principle of sustainable development;

[157] Status Report for Animal Genetic Resources, Republic of Albania, Ministry of Agriculture and Food, Tirana, 2002

Ingrassia, A. (2005), developing countries, like Albania, often point to lack of capacity as a major obstacle to the development of legislation. In many instances, the implementation and monitoring of legislation does not rapidly follow enactment. This is mainly due to the lack of capacity in developing countries, where implementation procedures are slowed by the absence of adequate human and financial resources, as well as weak institutional and infrastructure development (*Ingrazia,A. et al. 2005*). Other reasons are relate to the conflict and lack of communication and cooperation between different sectors. The latter generally occurs between the different ministries. In Albania this situation appears in the cooperation between the MoAFCP and the Ministry of Environment, Forests and Water Administration (MoEFWA). Consequently, the legislation development process and its implementation is complex. It is not only required to fully reflect the requirements of international documents and conventions and to be in line with the EU legislation, but also to be realistically applicable to the Albania current conditions.

In order to constitute good legal basis for development and implementation of conservation methods of FAnGR, the National legislation should treat, in accordance with the EU regulations and International legislation, issues related to:

(i) Ownership and Exclusive Rights in Animal Breeding,
(ii) Exchange, access and benefit sharing related to AnGR,
(iii) Sanitary and Veterinary Regulations of AnGR,
(iv) Information and documentation.

To realize a successful legislative process for the conservation and the sustainable economic use of FAnGR, the responsible authorities, among others, should keep in consideration the facts that:

(i) The national legislation, the necessary infrastructures, public and private institutions, shall be developed in line with all International agreement, CBD, WTO SPS Agreement and in harmony with standards provided by the Office International des Epizooties, Nagoya Protocoll ect..
(ii) The setting of national standards for domestically-produced food and for imported food should be in line with the WTO SPS Agreement and in harmony with *Codex Alimentarius* standards.
(iii) Development of the legislation for the establishment of minimum standards for intellectual property rights should be in line with the WTO Trade Related Intellectual Property Rights Agreements.
(iv) Development of the legislation addressing Living Modified Organisms should be implemented under the Biosafety Protocol of the CBD

The **Albanian National** legislation should be harmonised with the general policies for agriculture and rural development, intended to establish a long-terms vision of the agricultural development and its role in contributing to the national economy, in terms of both a contribution to the gross national product and to employment goals.

The legislative development and implementation need to take into account the strong linkages between technical aspects of Farm Animal Genetic Resources management (e.g. breeding programmes and conservation of breeds) and other factors that may influence general implementation of the legislation (e.g. influencing decisions relating to breeding programmes or the keeping of traditional breeds).

In order to successfully implement *in-situ* / *ex-situ* FAnGR conservation programs, it is necessary to develop a legislation that treats simultaneously, completly and in compliance with international acts, not only matters of programs implementation, but also issues related to the institutional capacity developments.

Referring to other countries of the region experiences, such as **Slovenia**, **Croatia**, **Macedonia,** etc., the ***best working scenario*** to attain the objectives set out by the Albanian Strategy and National Action Plan for biodiversity conservation of farm animals, must be implemented in different stages:

(i) preparation of the legal and regulatory framework;

(ii) methodology development and support of the efforts for implementing *in-situ* conservation programs

(iii) establish of the National Gene bank, having regard to the Albanian conditions and in compliance with the guidelines prepared by FAO;

(iv) finding and implementing the necessarie investments for capacity building in laboratory infrastructure and scientific technical staff;

(v) support of awareness development;

(vi) encouragement and development of regional and international cooperation, as a possibility to generate the necessary funds and the exchange of experience in projects and joint programs framework.

"Livestock Breeding" Act and "Veterinary Service" Act should serve as legal basis for development of legal issues related to *in-situ* / *ex-situ* conservation programs. The legislative development should create the necessary conditions in order to:

(i) Establish and strengthen national facilities for *in-situ* / *ex situ* conservation;

(ii) Establish modalities to facilitate use of genetic material stored in *ex-situ* gene banks under fair and equitable arrangements for storage, access and use of animal genetic resources;

(iii) Develop and implement measures to secure *ex-situ* collections from loss of genetic diversity resulting from disease outbreaks and other threats, in particular by establishing backup samples;

(iv) Develop procedures for replenishment of genetic material taken from gene banks, by systematically developing links with live populations, or establishing *in vivo* populations of breeds at risk at farm locations, or zoos and parks

Notwithstanding that Albania is not part of the EU, its legislation should be developed in accordance with that of EU and the International one. Referring to this request and to other countries experiences, among issues that the Albanian middle-term legislative development shall treat, may be distinguished:

(i) Storage of genetic reserves, monitoring and checking.

(ii) Property rights of the cryo bank conserved material. Agreements between donors (farmers) and cryo bank. Access to gene bank: Articles and conditions in Material Transfer Agreements.

(iii) Collecting new material: Articles and conditions in Material Acquisition Agreements.

(iv) Identification, collection processing and storage of (semen, oocytes and embryo, somatic cell)

(v) Sanitary arrangements/regulations

(vi) Data management and documentation

(vii) Genebank security

The national legislation on the *in-situ* / *ex-situ* conservation of farm animal genetic resources should take the form of primary legislation, which, should contain provisions of a general nature, so to allow the subsequent issuance of related subsidiary legislation.

Referring to legislative solutions implemented in other countries of the region, such as **Slovenia**, **Croatia**, **Bulgaria** and **Serbia**, the legislation drafting process should address the following issues:

**I. Clear concepts definition. Concepts such as:**

- Farm animal genetic resources,

-Breed, Native breed, Indigenous breed, Authocthon breed, Traditional breed, Local breed, Exotic breed, Transboundary breed

- Basic population,

- Breed improvement,

- Breed recovery,

- Breed refreshment
- Breed standard
- Population size, Effective population size
- Biological characteristics
- Conservation of genetic variability, Conservation programme for farm animal genetic resources
- Degree of breed endargement,
- Degree of relationship
- Ex situ conservation, - In situ conservation,
- Genetic distance, Genetic material, Heterozygosity, Homozygosity,
- Inbreeding depression,
- Molecular- genetic characterization
- Qualitative and Quantitative properties
- Register of breeds.
- Traditional technology of rearing
- Zootechnical assessment of a breed[158].

**II. Register of breeds with a zootechnical assessment**

The Ministry of Agriculture shall provide for regular and constant monitoring of farm animals biodiversity. To this end a register of breeds with a zootechnical estimation shall be kept and filled out every year. The collection of technical data for each breed, and the regular reporting of their risk of extinction, within the framework of a programme on conservation, should be the most important objective of the breed Register. The identification of the responsible body for data collection is an important issue[159]. The government should provide funds for the establishment of a data base on animal genetic resources. Register shall be managed by an Organisation appointed as a public-service gene-bank for animal husbandry

**III. Red book for endangered breeds**

The legislation must define:

(i) Conditions for a breed/ecotype to be registered in the *Red Book*.

(ii) Methods and instruments used to asses the risk level and its trend.

(iii) Bodys/institutions responsible for hodling and up-dating the *Red Book.*

[158] Regulation on conservation of Farm Animal Genetic Resources.Article 2 (*Definitions of terms*) Ministry of Agriculture, Forestry and Food, Slovenia

[159] Collection of data is a crucial problem as the only way to collect data in Albania is through public extension service specialists going from farm to farm. Furthermore, there is not certainty on the validity of such data.

(iv) Financial resources for *Red Book*.

**IV. Definition of the eligible species of farm animals and the criteria for determining the threshold of loss to farming of local breeds[160].**

**V. Programme for conservation of farm animal genetic resources**

(i) Recognition of the special significance of *in-situ* / *ex-situ* conservation of animal genetic resources[161] for the Republic of Albania, with particular emphasis on the endangered local breeds.

(ii) Identification of appropriate methodologies to support and monitor the *in-situ* / *ex-situ* conservation.

(iii) Acknowledgement of the critical role played by farmers in the sustainable management of domestic animal diversity.

(iv) Ensure the development of breeding programmes for endangered local breeds and populations.

(v) Support the research in the area of animal genetic resources from identified publicand private institutions, associations, universities, NGOs, etc…

(vi) Support the establishment of farmers/breeders' associations clarifying their role and responsibilities within the livestock sector and in particular in the *in-situ* conservation process[162].

(vii) Support the direct collaboration among farmers, associations and institutions, through the establishment of a national network on animal genetic resources.

(viii) Involve all stakeholders in the decision-making process.

(ix) Support public and private initiatives aiming at the *in-situ* conservation of local breeds.

(x) Raise public awareness on the value of animal genetic resources and on the consequences of their endangerment.

(xi) Ensure the exchange of information and development the Cooperation in international farm animal genetic resources databases.

(xii) Education and training programmes in conservation genetics and field techniques, especially for farmers.

(xiii) Introduce incentive measures for *in-situ* conservation of animal genetic

[160] This should be a provision of a general nature. Issuance of a specific by-law should follow.
[161] Reference to the Convention on Biological Diversity
[162] In Albania farmers associations are considered very weak and not able to play a crucial role in the conservation process of AnGR. In this context, it was identified the need to make such associations stronger and to involve them in the decision-making process in order to ensure effectiveness of and compliance with national provisions.

resources (for breeding and raising local, traditional livestock).

(xiv) Provide state funding (subsidies) for simple conservation establishing an aid-scheme for farmers voluntarily undertaking certain agri-environmental measures, such as, for example, the conservation of local breeds in danger of extinction and ensuring the upkeep of abandoned farmland.

(xv) Support public and private initiatives aiming at the *in-situ* conservation of local breeds.

(xvi) Establish a National Consulting Committee[163] as an ad-hoc institution having the authority to declare breeds at risk of extinction.

(xvii) Establish and support the International cooperation in the field of farm animal genetic resources.

**VI. Evaluation and monitoring of the genetic variability**

(i) Development of crierias for the estimation of genetic variability within breeds

(ii) Monitoring and assessment of genetic variability for individual breeds

(v) Monitoring and assessment of inbreeding and degree of relationship for individual breeds

(vi) Calculation and determination of genetic reserves by types of genetic material

(vii) Ensuring and maintenance of genetic reserves by species, breeds and lines of farm animals

(viii) Breeding programmes for small populations

**VII. Indigenous breeds of farm animals**

(i) Register of indigenous breeds of farm animals as an integral part of Breeds Register of the Republic of Albania

(ii) Conditions of rearing for indigenous breeds of farm animals

(iii) *In-situ* conservation – In this provision should be addressed issues related to maintaining of live animals in their natural (original) environment, traditional rearing technologies in accordance with sustainable development, maintaining a sufficient size of the population in order to allow

[163]FAO, 201.Developing the institutional framework for the management of animal genetic resources. FAO Animal Production and Health Guidelines, No.6, Rome.
The National Consulting Committee should have only advisory functions and should produce information for the National Coordinator for Genetic Resources. It should act under the authority of the Ministry of Agriculture who should decide on the individual membership. Members should be representatives of the government, farmers, breeders, etc. Membership should be non-permanent. Special sub-Committees should be established for each breed. A provision of general nature on the above should be contained in the national legislation and specific by-laws should follow.

implementation of rearing measures, conditions for implementation of rearing and selection measures, research and identification of zootechnical and molecular- biology characterisation of indigenous breeds, production and manufacture of traditional animal products.

(iv) Scope of *in-situ* conservation of specific indigenous and other breeds, the main criterion for the determination of capacity of a gene bank (*in situ* conservation) refers to the number of pure-bred breeding females by the respective species classified as endangered

(v) *Ex-situ* conservation - shall prepare requirements for systematic activities ensuring an overview of the minimum reserves of genetic material for each breed of farm animals

**VIII. Traditional breeds of farm animal**

(i) Conditions for recognition of traditional breeds of farm animals

(ii) Recognition of traditional breeds

**IX. Gene bank of farm animal genetic resources[164]**

(i) Definitions - A genebank for AnGR is a repository for *ex-situ* conservation and sustainable use of AnGR held by a host institution authorized and/or recognized by a national authority to fulfill these tasks. A genebank may be constituted by one or more repositories collaborating as a network.

(ii) Scope of conservation of specific native, traditional, authocthonous and/or indigenous and other breeds in *ex-situ* gene bank.

(iii) Ownership of the material: Ownership of the material describes the owner(s) of the genetic material which is stored or maintained in the genebank.

(iv) Governance body - the legal person, institution, group of institutions or such body as entitled and stated by the legal basis to decide on the operations of the genebank.

(v) Collection categories - Core collection, Historic collection, Working collection,

(vi) Acquisition conditions - are the conditions, which have to be fulfilled to acquire genetic material, possibly outlined in a specific document (e.g. material acquisition agreement (MAA)) in order to include it into the genebank.

(ix) Access conditions- are the conditions, which have to be fulfilled to get

[164]European Genebank Network for Animal Genetic Resources. ERFP Workshop, 13/14 June, 2013, Bonn, Germany

access to the genetic material held in the genebank, possibly outlined in a specific document (e.g. material transfer agreement (MTA)).

**X. Information system - National database of FAnGR**

(i) Databases by respective breeds and species shall be established and shall serve as a source of data for implementation of *in-situ/ex-situ* programs and as a mode of cooperation with other, especially international databases in the field of farm animal biodiversity.

(ii) In order to monitor farm animals biodiversity, a uniform information system shall be set up in the Republic of Albania. The system must be scientifically comparable to other systems of the same kind and adapted to the cuuent needs of the Republic of Albania. The Information System shall be managed by the Insitution responsible for implementing *in-situ/ex-situ* programs.

(iii) In order to establish and manage the National database of FAnGR it is necessary to plan a particular fund in the annual budget of the Ministry of Agriculture.

**XI.Special measures in livestock during emergencies**

(i) Amendments to the Law "On Veterinary Service".

(ii) Establish a Task Force, component of the National Network of Public Veterinary Service, responsible for identifying, evaluating and organizing the defense of rare livestock Breeds in case of an epidemy outbreak.

(iii) Support for establishing the National Network of Rescue Stations.

(iv) Prohibition on the trade and the slaughtering of domestic animals in case of emergency or of imminent threat of war or natural or other disasters.

**XII. *On- farm* conservation programs**

For the implementation of On-farm conservation program is necessary to develop a special legislation, such as a Regulation to be approved by the Minister of Agriculture.This Regulation should reflect all actions and responsabilities of various stakeholders involved in such program, in accordance with the Following Work Plan for On-Farm Conservation Breeding[165]:

***1st Phase*** - Monitoring: census, methods of husbandry and usage, breed characteristics.

Result: assessment of needs.

***2nd Phase*** - Securing all of remenante population through purchase or support at

[165]ELBARN 2007-2010. Guidelines for managing small populations of domestic animals.http://www.elbarn.net

present location. Securing or creating at least 10 male lines. Building up of nucleus herds and sperm banks.Creation of an NGO herd book including minimum data.Scientific research (e.g. distance analysis).Founding of management group for breed, if not already in existence.

***3rd Phase*** - Development of a long-term conservation plan for the breed, taking into account potential to integrate breed into agricultural production and/or other uses.

***4th Phase***- Integration of the breed in agricultural production/usage.

**XIII. Institutional framework[166]**

(i) National Coordinator for the Management of Animal Genetic Resources

(ii) National Focal Point for the Management of Animal Genetic Resources

(iii) National Advisory Committee

[166]FAO, 201.Developing the institutional framework for the management of animal genetic resources. FAO Animal Production and Health Guidelines, No.6, Rome.

# Chapter V

## Analyse of the Albanian legal framework relevant to the Sustainable Use and Development of farm animal genetic resources

### FAO - *Global Plan of Action (GPA) for Animal Genetic Resources*
### The need to address the issue of sustainable use and development of farm animal genetic resources.

The Interlaken Declaration on Animal Genetic Resources, among others stresses that "The sustainable use, development, and conservation of animal genetic resources for food and agriculture will make a vital contribution to achieving the goals of the Rome Declaration on World Food Security, the World Food Summit Plan of Action, as well as the Millennium Development Goals, in particular Goal 1: eradication of extreme poverty and hunger, and Goal 7: ensure environmental sustainability. The sustainable use, development and conservation of animal genetic resources for food and agriculture make an essential contribution to facilitating the implementation of Agenda 21 and the Convention on Biological Diversity"[167].

The treatment of the following issues is considered important by this document in order to reach objectives related to sustainable use and development of Farm Animal Genetic Resources:

(i) The need for adopting management approaches that combine the best of traditional and modern knowledge and technologies, and the need to apply the agro-ecosystem approach and integrated natural resource management practices.

(ii) The need to review institutional capacity, management structures, programmes and policies, to identify deficiencies and address them through strengthening national capabilities,

(iii) The need for enhanced partnerships among governments, scientists, farmers, pastoralists, breeders and consumers, to build upon ongoing efforts to manage animal genetic resources

(iv) The need for the transfer of technologies relating to sustainable use and development of FAnGR

(v) The need require the support and participation of farmers, pastoralists and breeders; local and indigenous communities; organizations and institutions; the private sector; and civil society.

[167] Global Plan of Action for Animal Genetic Resources*and the* Interlaken Declaration.p. 2. FAO, September, 2007

(vi) the need to promote technical and financial cooperation at the regional and international levels among countries, intergovernmental organizations, NGOs, and the privat sector

The Albanian National Strategy and National Action Plan for Conservation and Sustainable Use of Farm Animal Genetic Resources, has strongly considered issues related to the need for capacity development in infrastructure, human resources and legislation, which conditions the objectives envisaged in Global Plan of Action for sustainable use and development of farm animal genetic fund. Among them can be listed as most important[168]:

- Implementation of both, the National System for Identification / Matriculation of farm animals and the National Performance Production Control System.
- Elaboration of national and regional genetic/breeds programs for conservation and genetic improvement of exotic and nativ commercial breeds of farm animals.
- Development of the necessary public and private infrastructures, for implementing and monitoring, breeding and sustainable use of farm animal genetic resources programs.

**Albanian Strategic priorities on Sustainable Use and Development of farm animal genetic resources- comparative study.**

The ***Global Plan of Action*** (FAO, 2007[169]) underlines: "The use of exotic breeds is justified under proper management conditions in high external input production systems. However, in rural contexts, farmers and livestock keepers often face difficulties in securing the additional feed and other inputs that exotic breeds require. Moreover, imported breeds have often not reproduced in or been as adapted to the local environment as local breeds. Increased attention must therefore be given to the sustainable use and development of local breeds in low and medium external input production systems…

Investment in developing local breeds of livestock will benefit small-scale, resource-poor pastoralists and farmers, and will often contribute to the sustainable development of the poorest regions of a country. However, a major obstacle to the further development of indigenous breeds is the lack of national strategies, programmes and institutional infrastructure to facilitate genetic and husbandry improvement programmes in low

[168] Albanian National Strategy and National Action Plan for Conservation and Use of FAnGR. Ministry of Agriculture, Food and Consumere`s Protection, Tirana, 2007.

[169] Global Plan of Action for Animal Genetic Resources*and the* Interlaken Declaration. p.17. FAO, September, 2007

external input systems. Farmers' associations and breed societies do not exist in many developing countries, and pastoralists' and farmers' knowledge of modern breeding methods is often poor. National institutions and research facilities are needed to make animal husbandry and animal health care services, facilities and techniques available to all livestock keepers and also encourage private sector participation". According to this consideration and relying on level estimation and trend of economic development and sustainable use of FAnGR, in Albanian Starategy and National Action Plan for Conservation and Sustainable Management of FAnGR, are defined as national priorities:

- Sustainable economic use of livestock breeds, exotic and / or their crossbreeds with local breeds that have high genetic value expressed in indicators of high productivity and high ability for market competitivity.
- Promotion, development and use of indigenous species, ecotypes and local population with high skills to adapt to difficult conditions of extensive systems under the condition of scale family farms and that can also serve as a key factor for preservation and development of traditional production system.

In order to achieve these priorities, the above strategic documents treats the main terms of reference, which aim to achieve the following objectives:

a. Increase livestock production to meet population needs for food through policies development on supporting the restructuring of production systems by givin priority to:
    (i) Increase investment for the construction of commercial farms that implement high external input production system using exotic breeds.
    (ii) Capacity development of small family farms that apply to traditional production systems, using local breeds.
b. Increase forage production to support any development in farm animal production.
c. Deveplopment of production system in marginal environment, based on multiple-use animal genetic resources.
d. Increase economic efficiency in the use of inputs by increasing the efficiency and lowering production costs.
e. Increase agro processing industry capacity and promote the revivification and development of traditional local production.
f. Capacity development for appropriation and implementation of new agricultural and agro-processing technologies.
g. Policy drafting and legislation development in accordance with needs for :

(i) Development of infrastructure for farm animal genetic fund managment (Breeds Associations with a clear technical and economic motivation, offices for genealogical books, database etc..)

(ii) Livestock products quality improvment.

(iii) Organization and development of breed material market.

(iv) Promotion of demand for alternative and bio products..

h. Approximation of agriculture development policies with EU requirements and standards:

(i) Completion of conditions and standard implementation for environmental protection (EEC/2078/92 - agri – environmental regulation).

(ii) Conservation and sustainable use of animal genetic resources, as part of biodiversity.

k. Support for research capacity development and agricultural technology transfer.

A detailed organigrama is elaborated for the implementation of Strategic priorities in National Action Plan for conservation and economic sustainable use of FAnGR (Figure1). The sustainable economic use and the implementation of breed programs, aiming at the development of indicators and productive capacity of farm animals, are set as strategic priorities on this organigrama, regardless of farm animals breed / population situation and risk of extinction. The National Action Plan defines as necessary action, for all breeds of farm animals, exotic or indigenous / native, the elaboration and implementation of breeding programs. These programs can bring to success the commercial use and the *added value* of farm animals.

These programs also needs the development of a detailed legal framework. Such necessity is consider as one of the priorities of the Albanian National Action Plan, 2007 - 2013[170].

In accordance with the above strategic priorities the Albanian National Action Plan define as the long-term goal: "*enhanced sustainable use and development of animal genetic resources in all relevant production systems, as a key contribution to achieving sustainable rural development*".

The strategic priorities for sustainable use and development of Albanian FAnGR , are mostly developed in accordance with the corresponding priorities of the *Global Plan of Action* ( FAO, 2007).

[170]Strategic priority IV. Approximation of national legislation with the EU legislation and the requirements of various international documents. Albanian National Strategy and National Action Plan for Conservation and Use of FAnGR. p.43. Ministry of Agriculture, Food and Consumere`s Protection, Tirana, 2007

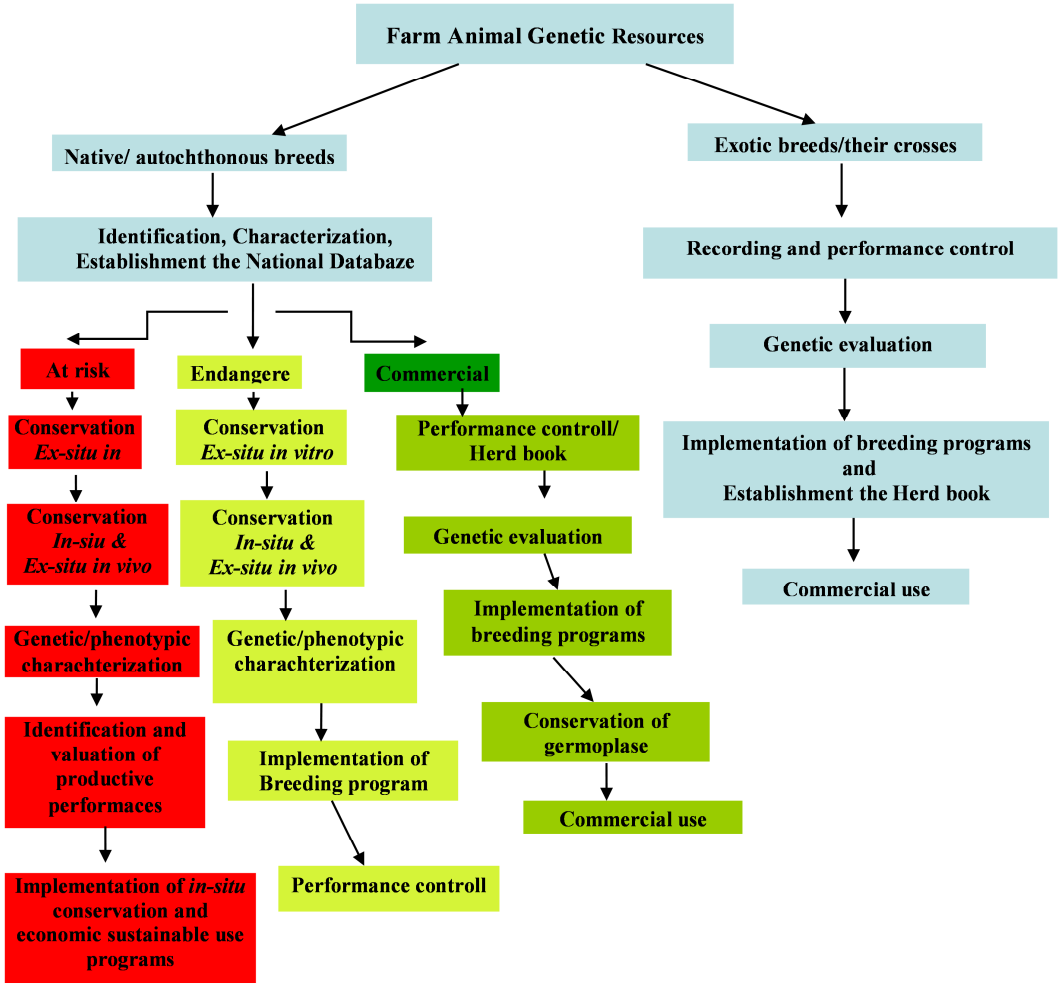


Figure 1. Organigrame of National Action Plan for conservation and seconomic sustainable use of FanGR (Tahiri, F. 2006)

***The* Global Plan of Action** sets as **Strategic priority 3: *Establish and strengthen national sustainable use policies.*** This document underlines the fact that: "*Sustainable use policies should balance food-security goals and economic development with long-term sustainability and adaptation objectives. In addition, environmental and socio-economic changes, including demographic changes, climate change and desertification, require adaptive medium- and long-term policies and strategies for the management of animal genetic resources".*

In the **Albanian National Action Plan** the development of national policies that incorporate the contribution of animal genetic resources to sustainable use, including – (i) setting strategic objectives for breeding and sustainable use; (ii) conducting economic and cultural valuation of animal genetic resources; and developing approaches including,

(i) mechanisms to support wide access to, and the fair and equitable sharing of benefits arising from the use of animal genetic resources and associated traditional knowledge - are evaluated as necessary. Despite this, referring to the current situation in livestock production, should be noted that such an approach, in most cases, will remain only a theoretical formulation. In the prospective of creating real conditions for their implementation, Albania has not yet addressed and solved these issues. It does not only misses structures, institutions and instruments for its implementation, but it is also plagued by legal framework gap.

According to **Strategic Priority 4** of **Global Plan of Action *Establish national species and breed development strategies and programmes***, "*the development and implementation of breeding strategies and programmes to meet foreseeable economic needs of farming and herding communities and markets are required for all species and breeds. Breeding organizations and recording schemes are highly beneficial in achieving breeding objectives and are crucial for breed development strategies, but are often lacking. Breeding goals should be regularly assessed and take into account the impacts of selection on genetic diversity"*.

The **Albanian National Action Plan f**oresees the compilation and implementation of breeding programms, including:

(i) efforts to improve under utilized breeds, especially within low to medium external input production systems;

(ii) assessments of the impact of exotic animal breeds and the development of measures for producers to realize positive impacts and prevent the negative ones;

(iii) training and technical support for the breeding activities; *and*

(iv) the integration of improved husbandry practices in animal genetic resources development programmes.

This Plan sets as strategic priorities:

(a) Capacity development of farm community for the implementation of breeding programmes.

(b) Establish and develop organizational structures of breeding programmes, especially breeders` organizations and breeding schemes.

(c) Implementation and development of national matriculation system (ear tag) and performance recording system.

The first steps, in support of the development of the necessary legal framework, are taken but they turn out to be insufficient

***Promote agro-ecosystems approaches to the management of animal genetic resources*** is the **5th strategic priority** of **Global Plan of Action.** It underlines that "*Agro-ecosystems depend on human management practices, knowledge systems, cultural norms, values and beliefs, as well as social relationships and livelihood strategies. In some production systems the management of animal genetic resources, particularly by indigenous and local communities, takes place in close relationship with the management of crops, pastures, forests and other biological resources, and land and water management in productive landscapes. Rapid intensification of production is driven by a number of factors. Inadequate planning of intensive animal production can lead to negative ecological impacts, such as soil and vegetation degradation, water and marine pollution, and the unsustainable use and conversion of rangelands. Management decisions and policies on the sustainable use of animal genetic resources therefore should be based on an understanding of human environments and livelihoods, and efforts to achieve*"[171]

The **Albanian National Action Plan** foresees the development of policies intended to promote all investment initiative, aiming at sustainable use of FAnGR agrobiodiversity and, in particular in native / authochthonous / local breeds.

Support for the development of the traditional system of production in small scale family farm is focused particularly on the marginalized mountainous regions. Support for programs aiming at sustainable use of farm animals, through the effective use of biodiversity and environment and through promotion and preservation of ecosystems is set as priority action. It foresees the development of structures, necessary for enhancing interaction among the main stakeholders. Notwithstanding this, it is necessary to fully treat in the National Action Plan issues related to integrate agro-ecosystem approaches in national agricultural and environmental policies and programmes of relevance to animal genetic resources, where appropriate, particularly those directed towards pastoralist and rural small holder communities, and fragile environments.

The elaboration of mechanisms that serve to evaluate the environmental and socio-economic trends is necessary.

According to the **Strategic Priority 6** of **Global Plan of Action**,***Support indigenous and local production systems and associated knowledge systems of importance to the maintenance and sustainable use of animal genetic resources****, "animal species and breeds have been domesticated, developed and maintained for human use. These*

[171]Global Plan of Action for Animal Genetic Resources*and the* Interlaken Declaration. p.19. FAO, September, 2007

*resources have co-evolved with the social, economic and cultural knowledge and management practices. The historic contribution of indigenous and local communities to animal genetic diversity, and the knowledge systems that manage these resources, needs to be recognized, and their continuity supported. Today, the adaptive animal genetic resources management strategies of these communities continue to have economic, social and cultural significance, and to be highly relevant to food security in many rural subsistence societies, particularly, though not exclusively, in dry lands and mountainous regions. Measures to support such systems should take their specific ecological and socio-*
*economic and cultural features into consideration"*[172]*.*

The **Albanian National Action Plan** foresees the assessment of the value and importance of indigenous and traditional production systems, and the identification of trends and the changes that may affect the genetic base, and the renews and sustainability of the traditional production systems.

In order to support the indigenous and traditional livestock system, of importance to animal genetic resources, this Plan of Action foresees:

(i) implementation of veterinary and extension public/privat services,
(ii) implementation of microcredit for farmers
(iii) appropriate access to natural resources and to the market
(iv) resolving land tenure issues
(v) the recognition of cultural practices and values
(vi) adding value to their specialist products
(vii) promote and enable relevant exchange, interaction and dialogue among indigenous and rural communities and scientists and government officials and other stakeholders, in order to integrate traditional knowledge with scientific approaches.
(viii) promote the development of niche markets for products derived from indigenous and local species and breeds, and strengthen processes to add value to their primary products.

**Actual Albanian legal framework relevant to Sustainable Use and Development of farm animal genetic resources**

***"Livestock Breeding" Act no. 9426, dated 20.01.2008***

[172]Global Plan of Action for Animal Genetic Resources*and the* Interlaken Declaration. p.20. FAO, September, 2007

This act is considered the most important legal framework for Sustainable Use and Development of farm animal genetic resources.

In this regard the purposes of this act are[173]:

(i) increase the livestock production and improve its quality

(ii) improvement oflivestock conditions and practices for a good breeding, methods and technologies for animal breeding and feeding

(iii) establishment of breeders' associations

(iv) implementation and supportthe trade in breed materials

(v) capacity building to support:

  (a) the traditional and conventional livestock production systems and agroecosystems

  (b) traditional and conventional processing of animal productions

  (c) local market

  (d) extension service

(vi) activate the necessary fund for implementation of breeding programmes

It contains provisions which determine the conditions for animal breeding (Article 4), animal breeding technology (Article 5), forage production (Article 6), farmers obligation for a good animal breeding(article 7), animal care (article 8), technical activities of farm animal breeders (article 9), animal identification for zootechnical purposes (21), database on livestock and its use (article 22, 23) and classification of animal husbandry methods that can be implemented in Albania (Article 24).

List of species of farm animals identified for zootechnical purposes, methods of identification, type, content and form of farm record-keeping, and other data shall be determined by regulation of the Minister of Agriculture, Food and Consumer Protection. This regulation should reflect the requirements of "Identification and registration animals and livestock farms" Act no. 8702, dated 01.12.2000[174].

According to it, the Ministry of Agriculture is responsible for organizing and controlling the implementation of animal identification and registration of livestock farms (article 3). Costs for animal identification and registration of livestock farms are covered by the state budget, projects and donor (article 4).

The Ministry is defined as the institution responsible for the elaboration of policies in order to build up the national system of collection and use of data for animal production

[173]Law no. 9426, dated 20.01.2008 "On Livestock Breeding".Kreu I. Dispozita te pergjitheshme, Article 1.

[174]Law No. 8702, date 01.12.2000 "For identification and registration of animals and livestock farms". Article 3, 4.www.mbumk.gov.al

traits. It should provide the access and connections to other agricultural databases related to livestock.The competent authority of the Ministry determines the methods for data keeping and collection for reproduction, productivity measurement, and other features defined in farm animal hausbrandy. The act defines the Directory of Animal Production as the competent authority. Data communication in animal husbandry field, methods for obtaining data, their use, and the detailed rules for records maintenance and other information are determined by regulation of the Minister of Agriculture, Food and Consumer Protection. They rely on the procedures and methods defined by the competent international organizations in animal breeding.

Costs for data keeping are covered by the state budget.

Criteria for classification and registration of agrolivestock farm, according to conventional or integrated breeding methods are determined by regulation of the Minister of Agriculture, Food and Consumer Protection.

According to "Livestock Breeding" Act, breeding programmes for conservation and development of production traits and other features in farm animals, are trated as one of the most important instruments for the economic sustainable use and development of FAnGR[175].

In terms of Article 26, breeding improvement programmes should specify the breeding objectives, the size of the population, the rearing and breeding methods, and the development and research tasks. Such programmes should also ensure the genetic improvement and the quality of animal products. Any animal or breed can be object of one or more breeding programmes. A breeding programme shall be in force for not less than 5 years.

The breeding programmes shall be prepared and implemented by the specialized institutions and breeding associations and shall be approved by the MoAFCP.

Article 28 sets forth the conditions for approval of the programmes, which should ensure breedingimprovement, reach the objectives set for the production level and other farm features, involve aconsiderable number of farm animals, and ensure the expertise needed for its implementation.

Article 33 establishes that only those animals capable of reproduction, fulfilling the requirements of the certified breeding programmes, and intended to be used for reproduction may be considered as breeding animals. They should have a pedigree, their data introduced in a herd book. Provisions for the keeping of the documentation are made in the law. The requirements for defining the animals used for breeding purposes

[175]Law no. 9426, dated 20.01.2008 "On Livestock Breeding". Kreu III., Article 26-43. www.mbumk.gov.al

shall be laid down by the Minister.

Article 61 establishes that special accompanying documents should identify farm animals traded in as breeding animals or animals to be presented in expos, fairs, etc. The Livestock Inspectorate is responsible for controlling the fulfilment of the trade conditions. The trade of semen shall only be permitted through the approved insemination. According to Article 63, the trade in embryos can take place only with an institution or organization specialized in embryos collection, preparation, storage, transplantation and trade following the provisions of the "Veterinary Service" Act.

Article 64 recognizes the import and export of the breeding materials. Breeding animals intended for import and export should be registered in the genealogical book of an approved organizationbe easily identifiable and accompanied by the necessary veterinary and livestock documents.

The act recognises the Directorate of Production Policies (DPP) as the competent authority for the its implementation and for any activity preformed in the livestock sector. The DPP has, among others, the duty to prepare development policies and programmes for the conservation and improvement of animal genetic resources. The Directorate has as part of its structure the Animal Production Sector (APS). APS is the public structure responsible for elaboration and implementation of genetic improvement and economic sustainable use of FAnGR programs[176].

Article 74, establishes the Livestock Counsel, which is composed by 11 members including officers from the MoAFCP, Centre for Agricultural Technology Transfer, Agricultural University, Environment Ministry and breeders associations. Its mandate seems to be strictly advisory[177].

[176]Livestock Production Sector has the following tasks:

a) designs development policies and programs of protection, improvement and conservation of animal genetic resources attributes, in order to promote farmers to increase livestock production, creation and dissemination of breed values and maintaining genetic variability of farm animals;

b) Elaboration of short, medium and long term livestock development strategies;

c) drafts laws and regulations for livestock breeding;

ç) encourages modern technologies application in animal breeding and achieving quality standards in livestock products;

d) promotes the creation, strengthening and training of livestock breeding organizations;

dh) ensures feedstuff quality control and provides monitoring of forage production;

e) exercises zootechnical inspection in the field of animal breeding, breed improvement, feedstuff and animal nutrition and livestock production technologies;

f) cooperates with similar structures of the European Union, Food and Agriculture Organization (FAO), the European Association for Animal Production (EAAP), International Committee for Animal Recording Association (ICAR) and with other organizations and associations;

Law no. 9426, dated 20.01.2008 "On Livestock Breeding". Chapter VII., Article 65. www.mbumk.gov.al

[177]**Tasks Of Livestock Council Taks**

1. Livestock Council is an advisory body of the Minister in charge of zootechnical field.
2. Livestock Council advices on the following matters:
   a) agricultural policies governing zootechnical field;

This act identifies the breeders' organizations and other specialized organizations as the nationally approved livestock organizations. These organizations should be approved by the Minister and should comply with different requirements as set by the law (e.g. compliance with organizational and technical requirements, presentation of a breeding programme, control of a certain number of animals, etc). Farmers and / or other interested parties who carry out work in the field of animal production, have the right to be organized in associations, depending on the interes and objective of their activity. It also provides for the institutionalization and defines the action fields for:

1. Farm-bred animals organizations
2. Specialized and approved organizations

A farm-bred animal organization is approved by the Ministry of Agriculture, Regional Directorate, as a legal person, if he seeks and accepts to take over the implementation of a breeding program and all obligations arising from it[178].

A specialized and approved organization is a natural or legal person. If it meets the requirments set out by the "Livestock Breeding" Act, regarding the location, equipment and staff, it shall be approved by decision of the Ministry of Agriculture, respectively the Regional Agriculture Directorate. Such organizations are testing Stations, semen production centers, queen bee manufacturing centers, pure-bred animal production

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b) long-term development programs;
c) breeding programs presented for approval;
ç) annual reports on activities within breeding programs;
d) for changes in / or the introduction of new methods for breeding value predictions and for animal breed evaluation;
dh) important regulations in zootechnical field;
e) recognition of authoctonous breeds;
f) services fees and defintion of public services scope;
g) livestock nutrion and feedstuff.

Law no. 9426, dated 20.01.2008 "On Livestock Breeding". Chapter VII., Article 74. www.mbumk.gov.al

[178] 1. The Department of Agriculture, Food and Consumer Protection approves an animal breeders organization, known legally sa legal entity, which wants to take part in the implementation of breeding programs, when:
a) meets organizational and technical staff requests to implement the breeding program;
b) has a breeding program;
c) has an adeguate number of farm animals in order to implement the breeding program;
ç) insures the use of production data for the implementation of the breeding program;
d)accepts and implements professional rules for, breed or populations characteristics determination declared in the genealogical book, setting goals for breed identification and animals registration, the system of data collection and animal production evaluation;
dh) has adopted rules to insure equal development;.
2. An organization of animal breeders breed in order to hold a genealogical book of indigenous species, must meet the following requirements:
a) specifies breeds that belong to the breeding program scopes;
b) adapts professional rules for indigenous species identification and registration, defines features of breeds or populations held in the genealogical book.
3. The animal breeders organizationis approved if it meets the requirements set out in paragraph1of this Article by itself or by signing acontract with an other approved organization for the realization of individual technical activities, necessary for breeding programs implementation.
Law no. 9426, dated 20.01.2008 "On Livestock Breeding". Chapter VII., Article77. www.mbumk.gov.al

centers, embryos collection and transfer, organizations for collecting data on livestock competitions, natural mating stations, sperm trading units and livestock professionals groups.

These organizations need to generate funds from various sources for their activity.

They have the right to decide on funding sources and use. The law recognizes the right of the Ministry of Agriculture to monitor all organizations activities. In case of no fulfillment of all obligations arising from the law the Ministry of Agriculture can order the suspension of their activity.

***Secondary Legislation***

In order to fulfill all obligations derived from "Livestock Breeding" Act, the Minister of Agriculture has approved:

a. Regulation No. 2, dated 22.07.2008 "On the reproduction of farm animals, breed material production and marketing"
b. Regulation No. 3, dated 08.05.2008 "On certification of purebred animals of bovine, sheep, goats, horses and pigs species"
c. Order No. 422, on 17.12. 2009 "On registration conditions for purebred reproducer of bovine, sheep, goats, horses and pigs purebred or hybrid in the genealogical book".
d. Order No. 303, on 04.11.2011"Regulation on zootechnical standards for purebred reproduction animals of the bovine species".
e. Order No. 318, on 14.11.2011 "Regulation on zootechnical standards for purebred reproduction animals of sheep and goats".

These regulations define zootechnical standards and conditions that must be met by private operators, farmers and certified farmers' organizations to produce breed material, requirements that must be met according to the genealogical information for areproductive animal to be recorded in the Genealogic Book, conditions and standards that must be met to trade breed material (pure-breed animal species cattle, sheep, goats, pigs, horses, semen, ova and embryos). In accordance with the definitions given in "Livestock Breeding" Act no. 9426 dated 20.01.2008 the main responsible institution for the implementation of the above orders and regulations is the farm-bred animal organization.

***"Feedstuff for Livestock"Act no. 8411, dated 01.10.1998,***

In order to achieve the economic sustainable use and development of FAnGR current

Albanian legislation pays special attention on issues related to animal food and nutrition[179]. The purposes of this act are:

i. Support for increasing production of dairy products.
ii. Quality assurance of animal products according to approved standards.
iii. Avoiding damage to animal heath from food use.
iv. Protection against fraud in the production and marketing of food for animals, additives and premixtures (article 1).

It defines the requirements for livestock food labeling (Article 5), documentation for imported / manufactured in the country food (article 6), and the responsible authority for food control and for their rights of duties (article 7-11).The Commission for Livestock Feeding is established by the law as the main authority responsible for all issues of livestock food and nutrition in the Republic of Albania[180].

***"Veterinary Servic in Republic of Albania" Act No.10 465, on 29.9.2011***

The success of the economic sustainable use and development of FAnGR is conditioned by the way how issues, related to the veterinary service with effect on livestock production, are treated by the legislation. "Veterinary Servic in the Republic of Albania" is the main Act dealing with matters of this nature. It is the legal base for the establishment and operation of the Identification and Registration System (IR) of farm animals in the Republic of Albania.

It treats in detail issues associated with:

(a) protecting and improving animal health;
(b) monitoring, diagnosis, treatment and eradication of farm animal diseases;
(c) protecting their reproductive health;
(d) ensure increased productivity;
(e) sustanaible economic use; *and*
(f) breed improvement[181].

[179]Law No. 8411, dated 01.10.1998, "Feedstuff for Livestock" www.mbumk.gov.al

[180]Feeding Livestock Commission tasks are:

-propose to the Ministry of Agriculture and Food legal framework amending on production, processing, storage, marketing and use of feedstuff;;
-define feedstuff standards and category;
-set limits for the use of additional materials, biostimulator and curative preparations;
-define official methods to evaluate feedstuff;
-define conditions for manufacturing entities and their licensing and requirements for the state of facilities and equipment associated with these subjects;
-establish rules for the destruction of blocked goods.

Law No. 8411, on 01.10.1998, "Feedstuff for Livestock" Article 13.www.mbumk.gov.al

[181]Law No.10 465, on 29.9.2011 " On Veterinary Servic in Republic of Albania" Article 5-11. www.mbumk.gov.al

**On some limitations of current legislation.**

In the current Albanian legislation the issues regarding the economic sustainable use and development of biodiversity in farm animals, are treated only in general terms. The issues arising from the necessity of meeting the requirements of international documents and/or issues addressed in EU legislation are not detailed and fully developed (Kume, A. 2011).

Therefore, the National legislation does not give an exhaustive answer to the following questions:

- Which should be the means, methods and infrastructures that must be implemented in order to develop the necessary capacities for the development and use of farm animal genetic recourses?
- What kind of institutions and public or private structures should be developed and which should be the relation between them?

This legislation is not constructed in order to achieve full integrity of the legal conditions and/or regulations necessary to establish the legislative background, on

which can be processed and developed policies and action plans, to enable:

(i) Identification and monitoring of situations that characterize the development of biodiversity and the processes or activities which may have negative effects on the sustainable use and development of FAnGR

(ii) Equitable access and effective recognition of every genetic source.

(iii) Elaboration of integration policies in line with, the potential opportunities of sustainable use ofbiodiversity processes, and with the entirety of the activities and development in other key sectors of the economy and the socio-economical and political development programs.

(iv) Exchange of information and the regulation of the right for access.

(v) Recognition and acquisition of biotechnologies, methodologies and necessary infrastructure for their transfer.

(vi) Technical and scientific cooperation in the field of conservation and sustainable use of FAnGR

The current legislation does not treat in accordance with the requirement of international documents and legislation of EU member states a queue of issues related to the management of biodiversity of farm animal genetic recourses. Among them can be ranked issues related to:

(i) Breeders` associations – rights and duties

(ii) Herd book and genealogic book

(iii) Register of breeds with a zootechnical assessment

(iv) Evaluation of the degree of breed endangered

(v) State of use of a breed

(vi) Information system of farm animals biodiversity

(vii) Cooperation in international farm animal genetic resources databases

(viii) International cooperation in the field of farm animal genetic resources

The current Albanian legislation while addressing issues related to breed programs, as one of the main instruments used for economic sustainable use and genetic development of FAnGR, uses general terms wich are not very clear on their technical aspects. It uses terms technical and legal terms such as "Basic Breed Programs" and "Breed Programs" without explaining any difference between them (“Livestock Breeding” Act no. 9426, dated 01.20.2008, Aticle 3. Definition).These two notions are the main instruments for building-up the national, regional and local scheme for genetic improvement of farm animals. Meanwhile, we may conclude without difficulty that current legislation fails to clearly identify the differences between these two types of breed programs. What are the differences that they should have in their objectives, in which livestock population shall be implemented, who are the main actors responsible for their elaboration and implementation, the responsible institution for performance control, financial resources, beneficiaries, etc…It is not clear what obligations have different stakeholders participating in the program and their liabilities case of "Basic Breed racial Programs" and "Breed Programs". “Basic Breed Programs" is defined as a public service to livestock financed by public funds. Consequently, in order to implement it the legal framework should that clearly define the responsible public or private institutions, duties and rights, financing methods, relations and forms of cooperation with structures or institutions that shall be responsible for breed program implementation etc…

The Albanian law defines the Minister of Agricultureas as the main decision-making institution for breeding programs. It decides after consultation and relying on material prepared by the Livestock Council. This decision is extended to the whole technical and scientific issues, such as reproductive testing methods, genetic evaluation methods, farm animal selection method, reproducer using methods etc...

In this case the act bypasses and does not respect the role of research institutions in the evaluation and development of scientific methods that are the basis of livestock genetic improvement programs. It addresses these issues in an entirely administrative plan, thereby creating difficulties for implentimin real and lucrative breeding programs.

While the act treats in detail issues concerning livestock breeding organizations such as registration procedures, formal conditions that must be met in order to be registered,

conditions for activity ending ("Livestock Breeding" Act no. 9426 dated 20.01.2008., Article 75-86), issues such as duties, organization responsibilities and rights, their role in the formulation and implementation of national and local breeding programs, relations between them and other public and/or privat institutions or services domestic and/or foreign involved in livestock breeding, membership conditions, members duties and rights, members relations and benefits sharing, financial resources etc... are not treated at all.

Various provisions of the law give different designations for the organization term such as *Livestock Breeding Organization, Growers Association, Breed Hearing Organization, Specialized and Approved Organization.*

Article 1 "Definitions" does not give any explanation for these designations.The ways these designations are used in the act text, shows incoherence. While the fact that in every provision where these terms are used it is stated the obligation for the Ministry of Agriculture to regulate by a separate bylaw act conditions for their registration, does not solve the problem. It is necessary to fully treat issues related to organizations because they are among the most important istitutions for the implementation of genetic-breed improvement programs and other activities for the

conservation, sustainable use and development of FAnGR.

It is necessary to find solutions that will enable the harmonious and coordinated development of the responsibilities, duties and rights of all stakeholders and institutions involved in the administration of FAnGR programs.

Although this act pays special attention to issues related to farmers and Breeding associations registration, the given solutions still leave open and without answer important issues[182].

The legistlative treatment of breed programs varies from state to state. It is treated as part of the Animal Hausbandry Act (Serbia, Macedonia), or Livestock Breeding Act

[182]Walløe Tvedt, M., Hiemstra, S.J., Drucker,A.G.,Louwaars, N., Oldenbroek, K. 2007. "A ***sui generis***system could be linked to eligibility for being registered in a particular register or herd book (managed by a breed association). Under such a ***sui generis***protection system, registration would lead to the establishment of a right and the criteria for being granted that right are those required for being registered. The difficult question here is what the rights (and legal consequences) conferred by such a registration shouldentail. For example, should such a registration give any exclusiverights to the genetic material? One alternative could be that registration gives rights to the individual animal. However, such a registration would not add much in addition to the already held physical property right overthe animal plus the complete genome of the particular animal in question. A second alternative could be that registration of individual animals also confers an exclusive right to single genes or alleles in the registered animals. This alternative is however problematic, as single genes or alleles often occur in a similar form in different individual animals and there is a need to avoid creatingcompeting exclusive rights to the same gene. A third alternative could be that only those farmers and breeders with animals registered by the breed association have the rightto use the name or brand of the breed".Legal Aspects of Exchange, Use and Conservation of Farm Animal Genetic Resources.
FNI Report p. 30. 1/2007

(Slovenia, Montenegro), Livestock Act (Croatia, Bullgaria). In Albania legislative issues related to breed programs are part of the “Livestock Breeding” Act no. 9426 dated 20.01.2008.

This act has as its main purpose the protection, improvement and conservation of animal genetic resource attributes, in order to encourage farmers to increase livestock production, improve product quality and preservation of farm animal genetic diversity. In the same time it addresses issues related to:

(i) definition of the conditions and farming practices for a good breeding of farm animals,
(ii) methods and technologies of animal hausbandry, fodder for livestock,
(iii) farmers technical and professional capacity development,
(iv) breed material market and trade,
(v) zootechnical inspection etc…

The Albanian "Livestock Breeding" Act is, in form and in content, a legal act in which are included issues that in other countries legislations are treated in separate acts. The Albanian national legal framwork treats together issues related to farm animals gentic-breed preservation and improvement and also issues related to livestock farming. Other countries of the region follow a different approach. Matters related to farm animal genetic-breed improvement and preservation are treated in a special act in Slovenia, Croatia, Bulgaria etc…(Livestock breeding Act), while livestock farming issues are subject of the Animal Husbandry Act. A solution like the one implemented in Albania is used in Serbia in the Animal Husbandry Act. The **Serbian Law** on Animal Husbandry, at the same way of the Albanian one, sets measures and rules for: animal husbandry; animal husbandry subjects and their organization forms; animal husbandry programmes; production control and preservation of characteristics of domestic animals; domestic animal husbandry; apiculture; aquaculture; wild animal husbandry; preservation of genetic reserves of domestic animals and biodiversity in animal husbandry; and production and distribution of animal food and animal food products. In order to respond to the requests for elaborating and implementing conservation and sustainable use of FAnGR programs the Serbian legal framework is complemented with regulations such as: “Rules on the list of genetic reserves of domestic animals, the way of preserving genetic reserves of domestic animals, as well as a list of indigenous breeds of domestic animals and endangered indigenous breeds” ("Official Gazette RS", No. 38/10) and “Rules on the conditions of breeding and trade of indigenous breeds of domestic animals, such as content and

method of management of register of the indigenous breeds ofdomestic animals" ("Official Gazette RS", No. 56/10).

In the Albanian legislation such development remains still a task to be performed.The legal solution implemented in Albania, "Livestock Breeding" Act, at the base of which lies the principle of treating in a single legal act all the problems related to -

(a) conservation, sustainable use and development of FAnGR,
(b) institutions responsible for policy development and breeding programs, as well as their implementation,
(c) building institutional structure and decision making on the principle of autocracy control schemes, which recognizes the right of exclusive decision to the Minister of Agriculture,
(d) insufficiency in addressing issues related to the right and duties of farmers community,
(e) uncertainty in the separation of duties between different stakeholders etc…

-is among the limitations that have the actual Albanian legislation, relevant to sustainable use and development of FAnGR.

**Possible middle-terms developments of Albanian legislation related to sustainable use and development of FAnGR**

In order to constitute good legal basis for economic sustainable use and development of FAnGR, the Albanian National legislation should treat, in accordance with the EU regulations and International legislation. It should be developed with the objective of constructing a legal framework that support and serve as legal base for the establishment, implementation and development of all instruments and institutions necessary for the implementation of national strategic priorities that the government of Albania has approved in the National Strategy of Conservation and Sustainable Use of FAnGR, Croscuting Strategy for Rural Development and Agricultural and Food Sectorial Strategy. Having as base the current legislation, the expected developments should be oriented towards the exploration of possibilities for the implementation of a legislative framework, that can give solutions to issues that arise form the necessity of implementing, in the Albanian conditions, the strategic priorities set out in Golbal Plan of Action (FAO, 2007). The experiences and legislative solutions implemented in other countries of the region, such as **Slovenia, Croatia, Bulgaria** and **Serbia**, are one the possibilities that the Albanian legislator should consider during the legislation development and approximation process. This process must take in consideration that

sustainable use is defined in the CBD as “the use of the components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations”

The target issues of near future legislation development procces can be listed as follows:

**I. Issues to be considered for medium-term development of Breeding Programs**

Legal acts regarding breeding issues serve different purposes. A general objective is to improve the quality of breeds or breeding populations and to contribute to the conservation of breeds. In order to fulfill these objectives, these acts place provisions that serve to create the necessary conditions for the elaboration and implementation of breeding programs. Breeding programmes have been too complex in terms of logistics, technology and other resources without considering the required infrastructure.To have successful breeding programs is necessary to develop a full, clear and realistically feasible legal framework. Based on this legislation, the political institutions must develop clear policies. These policies need action plans that should aim at the support and capacity development of all necessary insitutional and material infrastructure that the law foresees to be engaged and used during breeding programs implementation.

During the development process of breeding legislations related to sustainable use and development of FAnGR, the legislator should take in consideration[183]:

(i) Realistic ways of improving farm animal breeds must be chosen and applied in the context of environmental constraints and socio-economic demands and within the resources available. Aspects of sustainability and provision of future genetic diversity are critical.

(ii) Animal breeding programmes should be seen in the context of long-term development programmes contributing to both more food and other livestock commodities produced and to improved resource utilization and livelihood of the livestock owners (FAO, 2010; Mueller, 2006; Mueller et.al., 2002).

(iii) Breeding programmes usually assume some kind of cooperation between the participants… The initial developments of breeding programmes are generally made by the government in collaboration with bilateral organizations. In that way, basic investments and structures can be put in place. However, it is extremely important that farmers get involved early in the process to ensure that their needs

[183]Philipsson J., Rege, J.E.O., Zonabend E. and Okeyo A.M. 2011.Sustainable breeding programmes for tropical farming systems *In*: Animal Genetics Training Resource, version 3, 2011.

are taken into account and that they provide the support needed for the programme to work (Ahuya et al., 2004; Ahuya et al., 2005; Kosgey et al., 2006; Peacock, 2008; Peacock et al., 2011); It is generally accepted that breed associations play a prominent role in breed development and breed conservation, as they will promote maintenance and improvement of quality of pure breeds. Breed associations should spearhead the official performance and pedigree recording of the animals belonging to the respective breeds.

(iv) Livestock recording schemes and data processing may be available.

The goal of livestock recording schemes is usually to provide farmers with information about individual animals for management and for breeding purposes. The objective could also be phrased as to provide an *information system* about the livestock, their use, performance and development, by both farmers and national authorities. The available infrastructure, including physical and human resources, will determine the type of recording scheme that can be effectively implemented. The sort of scheme offered will differ considerably depending on the farming structure and production system. (Kosgey et al., 2011)

(v) Monitor the breeding programme to show impact A final, but significant, part of a breeding programme is the initial evaluation of the options and regular analyses of the outcome of the programme (FAO, 2010);

(vi) Research is needed to support the breeding programme.The design of any efficient breeding programme relies on research results and practical experiences. The research should include analysis of breed characterization data, estimation of genetic parameters specific to the actual breed and environment, development of appropriate methods for estimation of breeding values and for selection, etc.

**II. Breeders` associations and conservation organizations**

Supporting capacities development of farmers community and other civil and private actors for the implementation of economic sustainable use, conservation and development of FAnGR programs is one of the strategic priorities of the Albanian Starategy and National Action Plan for FAnGR. A special attention should be given to middle-term developments of the Albanian legislation. It is necessary to formulate solutions that enable the effective realization, in accordance with the expectations of farmers'role in the elaboration process of policies, plans and programs for economic sustainable use, conservation and development of FanGR. At the same time these solution should contain provisions to force their implementation. Demand for such obligations, especially for the responsible public institutions, is very important. The

current work situation shows that the construction of legal mechanisms that will enable the accountability demanda nd all obligations fulfillment of these institutions as well as to other actors involved in implementing FAnGR good administration programs should be trated as one of the main priorities during the law making activity.

Legislative solution implemented in different countries for the administration of FAnGR, conservation, development and economic sustainable use, are usually based on the principle of cooperation between public institutions, ministries, research and academic institutions, different public services in livestock production and farmers communities, breeders` associations, civile and privat actors ect.. The Albanian legislation has tried to apply to this principle too.

Based on it and taking into account the current legislative accomplishments, the middle-term legislative developments relevant to sustainable use and development of FanGR, can attend the following routes:

1. Capacity development for building-up and implementing a pyramidal structure with mixed nature: public and private. This structure should contain among others, these institutional elements:

(a) public bodies, such as the Ministry of Agriculture, directory and sectors related to the livestock production, services organized, administered and operater as public ones under the Ministry of Agriculture.

(b) private bodies, associations and services organized as private institutions with vertical and horizontal extension, in order to cover the national, regional and local needs for conservation, development and economic sustainable use of FANGR.

2. Support for capacity development for implementing genetic and sustainable use of FAnGR programs. In order to achieve this it is necessary to have a legislation that foresees and treats issues related to:

(a) Building-up, at the national level, the responsible structures for:

a.1 Up-date and implement the national data-base for FAnGR,

a.2 National Genealogic Book for species and animal breeds reared in the Republic of Albania,

a.3 National Farm`s Register,

(b) Construction of responsible structures, at regional and local level for farm animal breeds, for:

b.1 Organization and implementation of census, wear tag matriculation of animals and performance recording control in farm,

b.2 Implementation and up-date of bred book and farm books,

b.3 Implementation of breeding program or conservation program

Depending on the operational object, non-public organizations operating in the sustainable use, conservation and development of FAnGR field, can be:

(i) Animal breeding organization

Their main objectiveis to support capacity development in farmers community to increase livestock production, farm sustainable economic developmen, increase farm family income, effective and sustainable use of farm animals genetic capacity.

(ii) Association for Conservation of FAnGR at risk of extinction

Their main objective is to develop farmers community capacities to implement programs for *in situ* conservation of farm animals breeds at risk of extinction and collaboration with institutions and stakeholders to implement *ex-situ* conservation programs.

(iii) Organization for production, reproduction and distribution of animals with high breeding value, production, storageand distribution of biological materialfor breeding programs purposes.

Their main objective is to develop capacity for the acquisition and implementation of new biotechnologies for livestock genetic improvement. These organizations can be founded as a voluntary farmers group that wants to be involved in a breeding program. Their farms shall be used for the production of reproducers with high breed value. Such centers could also be centers for semen storage and use, artificiaI insimination Stations(AI), center of ovule and embryo production and trade.

Besides registration rules the legislation, given the main object of their performance, must generally describe these organizations tasks. Among these tasks can be listed:

a. Implementation of breeds register with a zootechnical assessment.

The Register shall be kept and filled out every year in the month of December. The register will contain data, at the national level for all Livestock species/breeds rearing in the Republic of Albania. The Register shall be managed by an Organisation appointed as a public-service for animal husbandry. Using Registry data, organizations should publish, at the end of each year, the extinction risk level for each breed.

b. Implementation of Programme for conservation, sustainable use and development of farm animal genetic resources.

The Organisation shall lay professional foundations for the programme for conservation, sustainable use and development of farm animal genetic resources on the basis of the adopted and certified breeding programmes that have been included in the joint basic breeding programme, and other certified breeding programmes, and the data from the

Register. The foundations shall comprise programmes of activities by respective years and by the total period of the validity of the Programme (minimum 5 years).

For Livestock Breeding organizations the following duties may be provided:

- implementation of the new advanced rearing technology or traditional system of production
- implementation and monitoring the performance recording system
- implementation of in farms breeding programs throught the utlization of mating schemes and using the breeding animals selected for their hight production features.
- implementation and monitoring, systematic surveys and analysis of the state of farm animal biodiversity, including for all respective breeds the basic data on animal population, territorial distribution and rearing objectives;
- contents and modes of implementation of monitoring;
- time scope of monitoring;
- professional zootechnical and molecular-genetic activities;
- genetic variability and genetic reserves;
- implementation the new and/or traditional processing of animal productions
- support framers` community to building up the capacities to marketing the animal production
- research, education, training, and raising public awareness and promotion

Referring to the legislative experience of **Slovenia**[184], FAnGR Conservation Associations, can be provided with tasks associated with:

- measures regarding breeds conservation method, both *ex situ* and *in vivo* (natural parks, farms, school and research farms), also with regard to the ethnological, cultural, historic and environmental role of breeds of farm animals.
- implementation of continuous breeding measures for conservation of biodiversity of farm animals on the basis of the in-situ or ex-situ conservation programs
- implement a uniform information system that must be scientifically comparable to other systems of the kind and adapted to the needs in the Republic of Albania. The Organisation shall cooperate in the framework of international databases, and provide for accuracy and regular updating of Albanian data.

[184] Regulation on conservation of farm animal genetic resources. www.genska-banka.si .../*Regulation_on_conservation_AnGR__Slovenia..*

- to promote awareness and early warning of the public, the Ministry shall, along with the Organisation, publish yearly data on the significance and the state of conservation of farm animal genetic resources.
- monitoring and assessment of genetic variability for each breeds.

Organisation shall estimate genetic variance of quantitative traits and characteristics on the basis of experimental data, by verified mathematical and scientific methods. Organisation shall take into account the pedigree, level of inbreeding, and molecular information. For the qualitative traits and characteristics the Organisation shall assess frequency of deviations from breed standard characteristics, and varieties and frequence of alleles which can serve as an additional tool for determination of characteristics of a breed or line. Standard genomic tools shall be used for this purpose. On determining genetic reserves by types of genetic material the Organisation shall consider:

a. effectiveness of storage of genetic material (individual differences between breeding animals shall be taken into account)
b. effectiveness of utilisation of frozen genetic material;
c. actual size and dispersion of population;
d. minimum effective size of population
e. degree of breed endargement
f. minimum number of unrelated donor animals (25 male and female animals respectively).

The Organisation shall prepare provisions for the purposes of *in-situ* conservation of endangered breeds of farm animals, in particular for:

a. maintaining of populations of live animals in their natural (original) environment,
b. traditional rearing technologies in accordance with sustainable development,
c. maintaining the population of sufficient size to allow implementation of rearing measures,
d. conditions for implementation of rearing and selection measures,
e. research and identification of zootechnical and molecular-biology characterisation of indigenous breeds,
f. production and manufacture of traditional animal products.

The Organisation will be responsible to implement *in situ* conservation programme.

For the purpose of *ex-situ* conservation of indigenous breeds of farm animals, the Organisation shall prepare requirements for systematic activities ensuring an overview of the minimum reserves of genetic material for each breed of farm animals.

The Organisation shall ensure interconnection between the Breed register/Genalogic Book and the Register of indigenous breeds of farm animals. Register of indigenous breeds of farm animals should be an integral part of the National Breed Registers.

## Chapter VI

## Develompent of Albanian legal framework relevant on Acces and Benefit Sharing to FAnGR and Livestock Keepers` rights

The legal framework relevant to Conservation, Development and Economic sustainable use of Farm Animal Genetic Resources, should give a special attention to issues related to acces and benefit sharing and farmers` rights. The actual Albanian legislation does not treat these issues. The Albanian Costitution sanctiones: Article 122:

*1. "Any international agreement that has been ratified constitutes part of the internal juridical system after it is published in the Official Journal of the Republic of Albania. It is implemented directly, except for cases when it is not self-executing and its implementation requires issuance of a law. The amendment, supplementing and repeal of laws approved by the majority of all members of the Assembly, for the effect of ratifying an international agreement, is done with the same majority.*

*2. An international agreement that has been ratified by law has superiority over laws of the country that are not compatible with it".*

Albania adheres to the Convention on Biological Diversity (Rio de Janiero, November 1994). It has signed the Nagoya Protocol, on January, 28, 2013. From these acts derives the obligation to approximate the current Albanian legislation with the requirements of these international documents.

### Analyze and possible middle-term development of the legislation relevant to Access and Benefit Sharing Related to FAnGR

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention of Biological Diversity that was formally adopted by the tenth session of the Conference of the Parties to the CBD in Nagoya, Japan on 29 October 2010, has as its main objectives, the development of institutional performances, administrative infrastructure and legal relations between different stakehoders, which will make possible::

(i) acces to FAnGR,

(ii) sharing of benefits arising from the utilization of such resources,

(iii) access to traditional knowledge associatated with FAnGR and

(iv) sharing of benefits arising from utilization of such knowledge

Legislative elements addressing issues with the objectives and scope of Nagoya Protocol can be found in "Preservation of Biodiversity" Act No.9587, dated 20.07.2006. This act

conditions the use of genetic material, microbial material, other biological molecules of plants or animal for scientific study or for business, only by obtaining an environmental permit.The material transfer is possible only if the parties sign a material transfer agreement. In any case, monetary or non-monetary benefits are divided between the owner of the biological material and the user.The law has different provisions to regulate issues related to ownership, the right of use and benefit sharing for knowledge, innovations and practices of local communities to conserve biodiversity and use of its components[185].

In order to update the Albanian legislation and approximate it with the requirements of Nagoya Protocoll for Farm Animal Genetic Resources, we may proceed as follows:

1. Liabilities arising from the requirements of implementing the Nagoya

Protocoll can be expressed in specific legal provisions.This can be done by amending the "Livestock Breeding" Act or by drafting a new act for issues of conservation and sustainable use of Farm Animal Genetic Resources. Law provisions should address only in general terms these issues and than it should delegate to the Ministry of Agriculture the task of drafting a detailed bylaw framework necessary for the practical implementation of the Nagoya Protocol. Provisions should be binding. Special provision should be formulated for each of the four fields of action of the Nagoya Protocoll. These provisions must provide penalties in case of non-compliance.

2. The following issues should be treated in detail at the regulatory legislation level (regulations, orders):

### 2.1 Genetic resources: Access and benefit – sharing

In different countries of the world a permit is required to get access to genetic resources. In **Australia** a permit is required for any access to 'biological resources of native species for research and development of any genetic resources, or biochemical compounds, comprising or contained in the biological resource' in Commonwealth areas. In **India** the National Biodiversity Authority acts as the competent authority for all access requests from foreign nationals, research organisations or companies. Foreign applicants must apply to be granted approval by the National Biodiversity Authority by completing a form

[185]Law No.9587, datet 20.07.2006 "On preservation of Biodiversity"Article 45. Preservation and maintanance

1. Knowledge, innovations and practices of local communities for biodiversity conservation and sustainable use of its components are respected, preserved and promoted. They are used to fulfill practices for conservation and sustainable use of biological diversity components in the Republic of Albania.

2. Collection and documentation of knowledge and practices of local communities or individuals is performed only with their consent and when they know for what purposes shall be used.

3. Communities or individuals within the community have the right to benefit from commercial or non-commercial use of their knowledge and practices.

and paying a fee. In **Brazil** the access authorization and additional normative acts are issued by the Genetic Patrimony Management Council (CGEN). Access to genetic resources and traditional knowledge can only be granted following the previous consent byindigenous people, an environmental agency or the owner of private land[186]

In Albania, the permit application, can be an option for implementing the Nagoya Protocoll for FanGR:

To get acces to Farm Animal genetic Resources (Native/indigenous/ authochthonous breeds), individuals, institutions, local or foreign NGO, mus apply for anAccessory Agreement dhe and permission from the National Consultative Committee for Conservation and sustainable use of FAnGR. The permit must state the purpose of the request, time lasting, activity product and beneficiaries. The permit shall be in writing and may include, inter alia, provisions on dispute settlement, benefit-sharing, including in relation to intellectual property rights, subsequent third-party use, if any, of the genetic resources, and terms on changes of intent, where applicable. Permission must be accompanied by a CV of the applicant and its data. The request must be accompanied by the applicant CV and its data.The permit is approved by the Minister of Agriculture.

In order to legally regulate relations connected with benefit-sharing in case of ownership changes, as a result of transactions, middle-term development of the Albanian legislation should be implemented taking into accountEU legislation requirements and trends of development. It is recommended to take into account, during this legislative process, that:

- AnGR are privately owned
- The owner determines to what extent and under which conditions breeding animals or their germplasm is made available to others
- The price of animals in fact includes a benefit-sharing agreement: the owner/supplier gets money in exchange for providing access to the genetic material
- When selling animal genetic material (breeding animals, semen, embryos, ...)
  - -the value of this material as a genetic resource is reflected in its price
  - -the buyer usually is free to use it for further research and breeding
- In some case parties may agree on restrictions on the further use of breeding material and its transfer to third parties, either through contracts or through “gentlemen’s agreements”.
- The seller of genetic material may retain some rights to the next generation of

[186]Study to analyse legal and economic aspects of implementing the Nagoya Protocol on ABS in the European Union. p.59-60. Institute for European Environmental Policy. Service Contract ENV.E.2/2011/ETU/599073, August, 2012

animals (or germplasm) or rights to dictate how they are used[187]

**2.2 Traditional knowledge: Access and benefit – sharing.**

The core obligation with regard to access to traditional knowledge associated to genetic resources is contained in Art 7 Nagoya Protocoll. It obliges each Party to take measures, as appropriate, with the aim of ensuring that traditional knowledge associated to genetic resources held by indigenous and local communities is accessed with the prior and informed consent or approval and involvement of these communities, and that mutually agreed terms have been established.

The core obligation with regard to benefit-sharing for traditional knowledge associated to genetic resources is set out in Art 5(5) Nagoya Protocoll. It requires Parties to take legislative, administrative or policy measures in order that the benefits arising from the utilization of traditional knowledge associated genetic resources are shared in a fair and equitable way, upon mutually agreed terms, with indigenous and local communities holding such knowledge.

In **Uganda** Prior Informed Consent is mandatory for access to indigenous knowledge. Benefit-sharing arrangements must not negatively interfere with traditional knowledge systems and practices of indigenous peoples and local communities. Indigenous and local communities have exclusive rights over their traditional knowledge. Indigenous and local communities are guaranteed the right to:

(i) have the origin of traditional knowledge access mentioned in all publications, uses, exploitation and disclosures;

(ii) prevent unauthorized third parties from using or carrying out tests, research or investigations relating to traditional knowledge or disclosing, broadcasting, data or information that incorporate or constitute associated traditional knowledge;

(iii) and to derive profit from economic exploitation by third parties of associated traditional knowledge in which the community owns rights as provided for under Uganda laws and international legislation[188].

In **Brazil** the rights regarding traditional knowledge related to genetic resources are considered collective or diffuse. Most importantly the Brazilian Constitution recognizes

[187]FAO (2009) The use and exchange of animal genetic resources for food and agriculture. Commission on Genetic Resources for Food and Agriculture, Background study paper No 43, July 2009, 55 p.
Schloen, M, Louafi, S and Dedeurwaerdere, T (2011) Access and benefit-sharing for genetic resources for food and riculture–current use and exchange practices, commonalities, differences and user community needs. Report from a multi-takeholder expert dialogue. Background study paper No 59, July 2011.

[188]Study to analyse legal and economic aspects of implementing the Nagoya Protocol on ABS in the European Union.p.60-61Institute for European Environmental Policy. Service Contract ENV.E.2/2011/ETU/599073, August, 2012

the right of indigenous people to the exclusive use of the natural resources located in their traditional lands and the right of standing to defend their rights and interests in courts[202].

In the **Philippines** access to genetic resources and to traditional knowledge related to the conservation, utilisation and enhancement of these resources is to be allowed within ancestral lands and domains of the indigenous people only with a free and prior informed consent (FPIC) of such communities, obtained in accordance with customary laws of the concerned community. Access to genetic resources does not imply automatic access to associated traditional knowledge: access to traditional knowledge must be explicitly set out in the FPIC application and reflected in the Prior Informed Consent Certificate[202].

Albania lacks legislative experiences and currently there are no initiatives to implement any policy for traditonal knowledge protection. Customary practices on ownership right and knowledge use related to conservation and use of Farm Animal Genetic Resources - native / authochthonous / traditional breeds, are currently in a total disintegration state due to the collapsed interest of farming these breeds. Lack of policies and instruments for their protection requires urgent interventions. The expected legislative developments should be preceded by the institutionalization of property right over traditional knowledge. It should be recognized as a community right.In order to regulate relations between community members and their rights, it is necessary to develop rules that can make possible:

a. effective usetraditional knowledge
b. preservation and development in accordance with traditional system of conservationa and use of FanGR
c. equal acces for all community members
d. equal distribution of benefits among community members

For preservation and use of traditional knowledge at the national level, and in order to regulate relations between community owners and those who require to use it, the Albanian legislation may provide provisions aiming at:

(i) creation of a national system for the protection of traditional knowledge and practices related to the conservation, use and development of FAnGR
(ii) construction of institutional mechanisms to make possible community participation during the decision-making
(iii) establishing the necessary regulatory instruments for the development of relations between traditional knowledge owners and those who request to access and us it.

The Implementation of a regulatory system for access and benefit-sharing related to traditional knowledge may be provided as the responsibility of an institution composed ofrepresentatives of public institutions, academic and scientific research area and the respective community. All of them shall have equal rights on decision-making.

### 2.3 Prior informed consent by indigenous and local communities

Handling and finding an effective legal solution for the prior informed consent by indigenous and local communities is one of the most important moments of possible middle-term improvments of the Albanian legislation. Different countries apply different solutions for this issue. In **Brazil** permission for access is issued primarily by the Genetic Patrimony Management Council. However, access to genetic resources located in indigenous territories and access to traditional knowledge require the prior consent of indigenous people. When indigenous people do not give their consent, the Genetic Patrimony Management Council is not allowed to authorize
access. Similar rules exist in **Uganda**[189].

Indigenous and local communities in **Brazil** that create, develop, detain or conserve traditional knowledge associated to genetic resources are entitled to an indication of origin of the traditional knowledge in every single publication, to impede non-authorized third parties to use or disseminate traditional knowledge and to receive benefits arising from the economic use by third parties of traditional knowledge to which they hold rights. Indigenous and local communities in Uganda enjoy the same
rights. Similar rules exist in **Uganda**[203]**.**

In the **Philippines** prior informed consent must be obtained from indigenous peoples and local communities if they are the providers of the genetic resources. Specific procedures apply based on free and prior informed consent to be evidenced by a certificate[203].

Such condition should be part of the legal framework in Albania. The prior informed consent by indigenous and local communities should be foreseen as a right of farmers livestock breeding organizations or breeds conservation organizations, when membership of these organization is composed of farmers implementing tradional systems on farms rearing animals of the native/ authochthonous/ traditional breeds.

### 2.4 Requirementsfor domestic versus foreign users

In **Australia** there is no distinction made between national and foreign applicants. In

[189]Study to analyse legal and economic aspects of implementing the Nagoya Protocol on ABS in the European Union.p.61-62 Institute for European Environmental Policy. Service Contract ENV.E.2/2011/ETU/599073, August, 2012

order to access genetic resources in **Brazil**, foreign users need to be associated with a Brazilian institution. In order to access genetic resources and associated traditional knowledge for research or commercial utilisation, foreign applicants in **India** must complete a form and make a payment of 10,000 rupees (€146). By contrast, citizens or organisation registered in India intending to obtain genetic resources for commercial utilisation do not have to apply for approval. However, collaborative research projects between Indian organisations and public sector organisations of third countries do not require authorisation from the National Biodiversity Authority as long as the projects have been approved by the Central Government and comply with
their policy guidelines on the matter[190].

It is necessary to provide the Albanian legislation with provisions that regulate foreign relations with FAnGR.The current legislation does not contain provisions for such matter. In general, there is no public interest for them.This situation brings a non limited access of foreigners to the Albanian indigenous genetic fund.The implications are clear.In this situation, it is urgent to include provisions in order to regulate, in accordance with the requirements of the Nagoya Protocoll, foreigners relations with the Albanian indigenous genetic fund. For a middle-term period, these provisions can impose limits to the owner's rights of animals of native breeds / authochthonous, in particular the right to:

a. abroad sale of native/ authochthonous breeds
b. abroad sale of biological material, semen, ova and embryos
c. allowing sample collection (blood, somatic cells, etc.) of foreign researchers only if they present an agreement with a public institution recognized by the law as responsible for reviewing and approving the agreement.

In case of Albanian user, the legislation can provide provisions to condition its access to the genetic fund depending on its work purposes and objectives:

a. When the access has commercial purposes, the relationship between genetic fund holders and users must be regulated respecting obligations provided in provisions governing rights and obligations during animal breeding programs and / or *in situ* conservation programs.
b. Where the access is required for scientific research purposes, the project approval from the public authority responsible to review and approve programs and scientific research projects for genetic diversity and use of FAnGR, can

[190]Study to analyse legal and economic aspects of implementing the Nagoya Protocol on ABS in the European Union.p. 63-64 Institute for European Environmental Policy. Service Contract ENV.E.2/2011/ETU/599073, August, 2012

serve as an executive title. In such case the user of the genetic resource or traditional knowledges should be obliged to declare the owner or the organization that has the right of ownership on the genetic resource or traditional knowledges.

In cases where the collected biological material (blood, ovule, sperm, somatic cells) needs to be sent abroad for scientific research or in the framework of a scientific cooperation agreement between Albania and one or more other countries , besides the conditions that must be met in relation to the requirements of veterinary law, the legislation must provide provisions related to ownership protection and benefit-sharing. Currently, the Albanian legislation has no provisions trating explicitly, clearly and finally such issue.

This issue can be adreseed in the middle-term legislation developments taking into account that:

- Within the research sector, exchanges of AnGR are usually governed by classical scientific cooperation contracts
- Various type of genetic/biological resources could be exchanged
- Each party should keep the property of its inputs in the project
- No other use allowed than specified in the project
- Confidentiality required
- The scientific results, publication and potential IPRs should be shared
- Remaining genetic material taken care of (give back or destroy options)[191]

### 2.5 Benefit-sharing on *mutually agreed terms*

In **Brazil** benefit-sharing contracts need to be signed between the providers and the users of genetic resources and associated traditional knowledge, when genetic resources are accessed for commercial purposes. These contracts must be approved by the Genetic Patrimony Management Council. Brazilian legislation puts forward mandatory elementsfor benefit-sharing agreements, among others on the period of duration and intellectual property. It also requires, in specific cases, benefits to be dedicated to specified public funds. In **Australia**, there are no minimum benefit sharing requirements; parties to the contract agreed benefits on a case-by-case basis. In the case of commercial use of genetic resources, a benefit-sharing agreement must provide for

[191]Hiemstra, S J, Visser, B and Oldenbroek, K (2010), "*Exploring the Need for Specific Measures for Access and Benefit-Sharing (ABS) of Animal Genetic Resources for Food and Agriculture* (*AnGRFA)"*. Report of the International Technical Expert Workshop Exploring the Need for Specific Measures on Access and Benefit Sharing in Animal Genetic Resources for Food and Agriculture. 8-10 December 2010. Wageningen, the Netherlands.

'reasonable' benefit-sharing arrangements, including protection for and valuing of indigenous people's knowledge to be used. In **Uganda** the 2005 Regulations provide for the sharing of all benefits accruing from the collection, modification and use of genetic resources based on the principle of fairness and equity on mutually agreed terms. Guidelines set out an indicative list of direct and indirect benefits to be negotiated on a case-by-case basis[192].

In the Albanian case the benefit sharing contracts may be the part of secondary legislation.The main terms of reference of this contract, form, timing and parties obligations, can be explained in a Minister of Agriculture decree. In addition to parties obligations, the contract is advisable to settle the obligations of both parties toward public institutions, the Ministry of Agriculture and its subordinate institutions, which the law imposes the duty of organizing, coordinating and monitoring at the national and local level, conservation, use and development of FAnGR.

### 2.6 Monitoring

In **Uganda** the Lead Agencies are required to implement a monitoring system to track and keep record on the genetic resources accessed in the country and the extent of benefit sharing achieved. Permit holders must submit regular status reports on research and development relating to the genetic resources accessed under the permit. In **Brazil** and the **Philippines** the recipient of an access permit is required to present annual reports to the competent authority.

In Albania for monitoring the results of the access to genetic resources and/or traditional knowledge and benefit-sharing is necessary to develop a Guideline and a Regulation for its implementation. The Animal Production Department of the Ministry of Agriculture can be the responsible institution for the implementation of this regulation.

The monitoring activity can be coordinated by the FAnGR National Coordinator[193].

### 2.7 Enforcement

Enforcement in some countries appears to have been quite strict. In **Brazil** the permit might be suspended and sanctions may be imposed if the permit is misused. In **Australia** permit variations, transfers and penalties for breach of conditions are governed by Regulation. The current penalty for non-authorized access in Commonwealth areas is 50

[192] Study to analyse legal and economic aspects of implementing the Nagoya Protocol on ABS in the European Union.p. 64-65Institute for European Environmental Policy. Service Contract ENV.E.2/2011/ETU/599073, August, 2012

[193] Study to analyse legal and economic aspects of implementing the Nagoya Protocol on ABS in the European Union.p. 65-68Institute for European Environmental Policy. Service Contract ENV.E.2/2011/ETU/599073, August, 2012

penalty units. The **Indian State** can take action against parties who have not adhered to India's rules of prior informed consent and mutually agreed terms[206]

In Albania, in order to implement the legislation drafted in accordance with the requirements of Nagoya Protocol, it is necessary to predict strict penalties.

Such need is conditioned by:

(i) the complete lack of experience in access to genetic resources and traditional knowledges;

(ii) low level of farmers community awareness to economic values , social and national culture of the genetic indigenous fund, and the traditional culture and its use established over centuries, and

(iii) insufficient awareness of public institutions and academic staff toward the necessity of protecting our biological and cultural assets.

**Import and export of FAnGR**

Issues related to FAnGR import and exports, in the Albanian legislation, are treated in very general form[194]. The legislation does not prohibit, restrict or prevent the import and / or export of breeding materials (animals, sperm, ovocitesand embrios) for zootechnical purposes.The import and export is allowed only if the material is accompanied by documentation certifying the country of origin, identified with veterinary documentation in accordance with the requirements of the Terrestrial Animal Health Code (OIE) and EC Legislation and equipped with permission for use and documentation regarding its genetic value.There are no provisions in the legislation that condition the import of FAnGR because of its effects on the current genetic fund.Export / import of genetic material has no limitation in order to protect Albanian native / authochthonuos breeds.

During the middle-term potential adjustment regarding import of FAnGR, the legislation should provide conditions and rules to make possible that:

The FAnGR import shall in any case be associated with the genetic impact assessments. Impact (both positive and negative) assessments could also be extended to include economic and livelihood impacts, as well as other developmental and/or environmental impacts[195].

The CBD presupposes the right of a country to exercise sovereign control over its AnGR

[194]Law No.9426 dated 28.01.2008 "on Livestock Breeding", Article 64 "Import and export"

[195] Walløe Tvedt, M., Hiemstra, S.J., Drucker, A.G.,Louwaars, N., Oldenbroek, K. 2007 "The advantage of implementing impact assessments is the expected reduction of unwanted introgression or breed replacement. It creates stronger responsibilities for both exporters and importing countries and it has a direct effect on the conservation of local resources". "Legal Aspects of Exchange, Use and Conservation of Farm Animal Genetic Resources" FNI Report 1/2007p.22-23

(accompanied by a number of responsibilities). From the perspective of an exporting country, one of its main concerns is to maintain any property rights it may wish to retain over the AnGR after the resources have left the country. Similarly, it may wish to ensure that the rights of the exporter are respected by the buyer/importer of the AnGR. The most prominent rationale for a country to regulate export of AnGR would be to secure a right over that particular material in the future, including preventing that countries or companies gain control over these resources (e.g. through patenting or other forms of intellectual property rights), which might reduce the value of it in the exporting country. A second rationale for regulating the export of genetic resources has been the expectations of benefit sharing arising out of the use of genetic resources (Walløe T. et al, 2007).

In order to respect the CBD requirments in the export of Albanian FanGR, particularly in the case of animals or genetic material (semen, ovocytes, embryos) that belong to native/authochthous breeds, it is necessary to predict rules that can enable:

Legal provisions for sell / purchase contract, not only for the purchase of the animal or other biologic materials, but also for any subsequent use of the genetic resource for breeding purposes. In such a context, an *export regulation* could provide a useful supplementary tool for private law agreements. Such a regulation would set rules or a minimum standard for the content of a private law agreement to be considered legal or valid, there by regulating the sale of AnGR/breeding material.

**Trademarks and Patent**

A trademarks is a 'sign, or any combination of signs, capable of distinguishing the goods or services' that may add value to a product by distinguishing the product from other similar products in the market[196]. The TRIPS Article 15 to 21 regulates a minimum level of recognition of trademarks required upon all WTO members. Even if the TRIPS obliges a large number of countries to provide a high level of minimum protection, the cooperation in the WIPO is more detailed and plays an important law-making role.

Trademarks are the most effective tools for the add value of animal products. In particular, they can be used very successfully for products of animals of native/ authochthonous breeds. The current legal framework in Albania does not adhere to basic rules applied to trademarks for products of animals of native/ authochthonous breeds. The legal developments should aim at:

(i) Definition of terms and drafting of rules based on which certain intangible elements can be used into a product, for example a famous label that is linked to a

[196]TRIPS Article 15.

history of tradition or special methods to bring this specific product to a market.

(ii) Estabish the Trademark National Register Office

(iii) Defining conditions and rules for the protection of trademark certified products.

A patent grants an exclusive right to the commercial use of a new invention either described as a *product* or a *process*. Patenting of living matter is fairly new in a global context and in the large majority of countries, and patenting in the field of animal breeding is a very recent phenomenon. The Institutions operating in patents field in Albania are the General Patents and Trademarks Directorate and the Patens and Trademark Office of the Albanian United Chambers of Commerce and Industry.

The patent criteria are, according to TRIPS agreement Article 27, paragraph 1 that an invention shall be patented if: (a) it is novel, (b) involves an inventive step and (c) have an industrial application. The TRIPS Agreement prescribes that all areas of innovation must be open for patent protection, except some particular types of subject matters, defined in Article 27. The more detailed interpretation and application of these criteria is left to be determined by national practice for each area of innovation.

Implementation of the FAnGR patent regime in Albania can be considered only for: (i) animal native genetic resources, (ii) tradicional knowledge and (iii) traditional animal production processing methods. Since, TRIPS agreement does not specify the legal concept and countries have a wide discretion to implement a broad or narrow definition of essentially biological processes for the production of […] animals, even in Albania, the implementation of FAnGR patent regime must take into account the Albanian conditions, customary rules, developments of ownership relations, technical capacities and knowledge to evaluate the originality of the "product" required to be patented.

Given the limitations regarding the patenting scope[197,197], the Albanian protection system must consider the following targets:

(i) Livestock keepers' rights for breeding a specific native breed that they have developed and improved over many generations

(ii) Traditional knowledge used for implementing a tradional production system in small scale family farms

(iii) Tradional products produced in farms rearing animal of native/authochthonous breeds under the traditional system of production and processed by traditional proccesing methods.

(iv) Ethnic customs and culture of farmers`community in agro biodiversity

[197]Tvedt, M. W. 2007. Current Patent Law as it Applies to Animal Genetic Resources and Breeding Practices. Fridtjof Nansen Institutt, Bellagio Meeting 27. March to 2. April, 2007

administration.

Tvedt, M. W. (2007) underline: "The field of patent to AnGR is relatively unexplored and in a first phase. Patent law is mostly general rules applying to different areas of law, this raises a challenge as the law-making seldom is targetted to the particular needs of AnGR. It is probable that this adaptation to AnGR is going to be by case-law. This limits the possibilities for the law-maker to bring in strategically concerns for the branch itself". Consequently any initiative related to the patentability of the Albanian legislation revelant to conservation, sustainable use and development, must be cautious and consistent with the requirements of international and EU law.

**Possible middle-term development of the legislation relevant to Livestock Keepers' Rights or Farmers' Rights**

The Albanian legislation does not treat issues related to Livestock Keepers' Rights or Farmers' Rights. Referring to the current legislative developments in different countries, it is noticed that this issue is gaining ground progressively. Livestock Keepers'Rights are a concept developed by Civil Society during the "Interlaken Process", the run up to the First International Technical Conference on Animal Genetic Resources held in Interlaken in September 2007. They are advocated for by the LIFE ("Local Livestock For Empowerment") Network, a group of NGOs and livestock keepers/ pastoralists. "Livestock Keepers' Rights" are a set of principles that would enable and encourage livestock keepers to continue making a living from their breeds and thereby achieve the combined effect of conserving diversity and improving rural livelihoods[198].

Livestock keepers' rights or farmers' rights are unexplored legal or political concepts in the livestock sector. The term 'farmers' rights' is mentioned in Article 9 of the ITPGRFA (FAO International Treaty on Plant Genetic Resources for Food and Agriculture). Farmers' rights'recognize the enormous contribution' farmers have made regarding plant genetic resources (PGR). Responsibility for realizing such rights rests with the national governments and there is a clause specifying that article 9 shall not limit any already existing '*rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national law*'. From a legal point of view, these rights' are not formulated in a legally binding sense, which raises issues about their enforcement in practice[199].

[198]Köhler-Rollefson I.U., Mathias E., Singh, H., Vivekanandan, P., Wanyama J.(2010) Livestock keepers' rights: the state of discussion. Animal Genetic Resources , 2010, 47, 119–123. © FAO,2010doi:10.1017/S2078633610000925

[199]Walløe Tvedt, M., Hiemstra, S.J., Drucker,A.G.,Louwaars, N., Oldenbroek, K. Legal Aspects of Exchange, Use and Conservation of Farm Animal Genetic Resources. FNI Report p. 31. 1/2007

During the Global Forum on Food Security and Nutrition (FAO, March, 2010) a special attention was paid to issues related to Livestock Keepers' Rights. The main principles of this right are defined as follows:

(i) Livestock Keepers are creators of breeds and custodians of animal genetic resources for food and agriculture.

(ii) Livestock Keepers and the sustainable use of traditional breeds are dependent on the conservation of their respective ecosystems.

(iii) Traditional breeds represent collective property, products of indigenous knowledge and cultural expression of Livestock Keepers.

Based upon these principles different countries apply different legislative solutions. In societies characterized by lack of experience and institutional traditions, and in those who are going through the process of developing their democratic capacities, as is the case in Albania, it is recommended to draft a law level legislation. Referring to manner and issues currently discussed in relation to Livestock Keepers' Rights (Loquan, T. et al 2007; Evelyn, M. 2008; Köhler-Rollefson I.U., et al. 2010; Susette Biber-Klemm, 2011), it is recommended to reflect and develop by law issues related to:

(i) Recognition of livestock keepers as creators of breeds and custodians of animal genetic resources for food and agriculture

(ii) Recognition of the dependency of the sustainable use of traditional breeds on theconservation of their ecosystems.

This issue accentuates that breeds are embedded into and have been moulded by specific natural environments. Therefore they need to be conserved in the same contexts, in order not to lose their unique adaptive characteristics. This demand links the issue of conservation and sustainable use of animal genetic resources to the access to land and other common property resources.

(iii) Recognition of traditional breeds as collective property, products of indigenous knowledge and cultural expression.

This issue claims collective ownership of the communities over their breeds and highlights the fact that they are not a free for all that can be mined at will for interesting genetic traits.. In principle this issue is alsosupported by the Convention on the Protection and Promotion of the Diversity of Cultural Expressions that was approved by UNESCO on 20 October 2005[200].

(iv) Right of livestock keepers to breed and make breeding decisions.

[200]Ratified by Law nr.9613, dated 21.09.2006 "Adherence of the Republic of Albania to the UNESCO Convention - On the Protection and Promotion of the Diversity of Cultural Expression".

(v) Right of livestock keepers to participate in policy making processes on animal geneticresources issues.

(vi) Support for training and capacity building of livestock keepers and provision of services along the food chain.

(vii) Right of livestock keepers to participate in the identification of research needs and research design with respect to their genetic resources to ensure compliance with the principle of Prior Informed Consent.

**Property Rights - Ownership of the Individual Animal**

The legal treatment of issues related to property right or ownership of FAnGR is part of current most frequent discussions. The considerable Gap existing between the treatment of AnGR and FAnGR issues, while the international conventions that refeer to conservation, use and development of biodiversity (CBD, Nagoya Protocoll etc.) treat them at the same way, is one of the reasons for the high interess and frequency of discussion about them. In terms of current international relations developments in the field of free trade and cultural goods exchange, addressing ownership issues of FAnGR requires discussions at the international, regional and national level. In Albania, the discussion of issues related to property right or ownership of FAnGR is absent. One of the main reasons for the lack of interess on this issue is related to the fact that the private ownership of farm animals, as a relation between afrmers and their animals is relatively new. Only after the political-economic changes occurring in the early 90's this interaction was restored after about 60 years of interruption.

Farm animals are part of the farmer's private property. The owner has the right to be use them to produce food for his / her family or for the market, for work, to slain them or to give them to a third party. Farmer's right on the animal are exercised belong to the customary law. During the discussions related to property rights and ownership of FAnGR is advisable to take into account and use considerations and treatments given by the current literature (Rotschild et al. 2003; Köhler-Rollefson, 2005). Among them may be cited: "Animal keepers and breeders continuously upgrade their breeding stock, sell animals or genetic material or disseminate genetic progress within a company. Improved traits are passed to further generations by various breeding techniques. This may imply that extra cash flow from the improvedgenetic material flows back to the subsequent genetic improvement programmes or to the owners of the breeding animals. These property rights are seldom explicitly regulated in an act. There are no international agreements specifying anything about property rights. It is the national level that is the

source of law for property rights, as it is the nation state which has the power to safeguard and maintain the property rights within its borders. As ownership is seldom regulated in an act, this issue is solved by various forms of customary rights.

The fact that the ownership of the individual animal and the right to use it in breeding has been the practice in the complete history of animal husbandryand breeding; this practice has also probably been consistent in the sense that no comprehensive legal systems/general legal regulations have been departing from the right of the owner of the animal to use its genetic material. It can be expected that farmers have followed this practice as a legally binding norm (*opinion juris*) to the extent that this issue has been thought of in legal terms over a long period. This might be considered as obvious by the majority of farmers or policy makers. The fact that this legal point of departure is viewed as fairly obvious to all relevant stakeholders strongly indicates that this is a well established customary law"[201].

Ownership of an animal includes, as a point of departure, all types of use of the animal. This is considered to be fairly obvious by farmers and breeders as well as policy makers. It becomes more complex when the concept 'genetic resources' is taken into account including different levels of rights, as some of these actions draw benefits from the genetic material of the individual rather than the biological material.

Issues of property rights or ownership of the individual animal of Albanian autocthonous breeds should be trated in a special way. Given the fact that the awareness level of the Albanian farmers toward the high value of the indigenous genetic fund as a genetic asset inherited by generations and that should be passed to the future ones is low, it is recommended to restrict property rights and ownership of individual animals. Restriction may be imposed on farmers or farmers group, whose animals are under the regime of *in situ* conservation program. Such restriction can be:

(i) Export prohibition of indigenous breed animals which are under the implementation of an *in-situ* conservation program,

(ii) Slaughtering of reproducers or candidate for reproducer animlas can be made only with the approval of the authority that is implementing the *in-situ* consrvation program

(iii) for herd reproducing the farmer is obliged to implement the approved mating sceme

[201]Walløe Tvedt, M., Hiemstra, S.J., Drucker,A.G.,Louwaars, N., Oldenbroek, K. Legal Aspects of Exchange, Use and Conservation of Farm Animal Genetic Resources. FNI Report p. 8-9. 1/2007

(iv) farmer has not the right to intersect indigenous breeds with exotic ones

Such restrictions can be addressed as part of the legal provisions governing the relations between different stakeholders participating in the implementation of *in-situ* conservation programs for farm animal breeds declared at risk of extinction. They should be reflected in the cooperation agreement between farmers and the organization implementing the *in-situ* conservation program. Sanctions, in case of non-compliance should be classified depending on the violation and the effects that they bring the progress of the *–situ* conservation program. The organization should

have the responsibility and duty to monitor the implementation of this agreement.

**Contractual Agreements: Contracts – Transferring an Existing Right to another Person**

Transfer, through sale or donation of the ownership right over the animal, as a mean of production, means at the same time the transfer from the seller to the buyer of the right of ownership of the genetic fund that the animal possesses. This transfer is based on an informal relationship between sellers and buyers. The main element over which is builded this relation is the payment of a monetary value preliminarly agreed. Based on the customary right, the previous owner of the animal by getting the payment, losses all types of property rights on the animal and on its genetic fund (genes). In the commercial transaction the payment of the goods sold value, as a rule is carried out pursuant to the commercial agreement reached between seller and buyer. Even when this agreement is formalized in the form of a sale and purchase agreement, in any case it does not provide anything in relation to the retroactive effects of genetic fund ownership. Seller losses completely and finilly all types of property rights over the sold animals. The discussions and the curent literature related to issues of right of ownership transfer for FAnGR is complex[202].

[202]Walløe Tvedt, M., Hiemstra, S.J., Drucker,A.G.,Louwaars, N., Oldenbroek, K. 2007. "The right to use the animal in breeding is often specified in a (formal or informal) contract between the seller and the buyer of an animal. The main rule that ownership can be transferred also applies to animals. The contract or informal agreement determines the scope of what is transferred and which rights still belong to the seller (if any). As a contract is individually agreed, the seller may keep or reserve himself certain rights to the offspring of the animals. The contract then determines which rights are transferred to the contracting party. If no reservation is included in the terms for the sales, the assumption is that the buyer of the animal receives all the rights that the seller had, including taking advantage of the genetic resources. If an animal is sold to the slaughter house for the meat value, the interpretation of that contract will likely be that the buyer does not have a right to use the genetic resources, but only a right to use the meat and other products. Contracts imply a dynamic element in establishing (or transferring) rights from one owner to the other. The point of departure is that the owner can transfer what he has the right to, but he cannot transfer more than already is covered by his legal right. The contract determines the scope of what is transferred and which rights still belong to the seller. A contract is individually agreed, and is thus more specific than the general rules of ownership. The owner decides whether he or she wants to sell the animal or give access to the genetic material by selling e.g. semen, eggs or

In **Albania** it is recommended to discuss these issues and find solutions, which enable further developments of common law that regulates issues of right of ownership transfer. This is particularly important in case of sale or donation of native breeds at risk of extinction.

Such developments are also required in cases when the animals or biological materials (ovules, sperm, embryos) of Albanian native/authochthonous breeds are sold abroad. Legal restrictions regulating issues concerning FAnGR right of ownership transfer can be included in the group of provisions that deal with issues related to breeding programs in general and *in- situ* and / *or ex-situ* FanGR conservation programs. These restrictions should provide, that even in case of a commercial transaction of an animal, the sale contract shall guarantee:

(i) The continuity of breeding or *in-situ* conservation programs.
(ii) Transfer of obligations arising from property rights over an individual animal, from the seller to the buyer, in case of sale / donation of native / indigenous breeds.
(iii) Transfer of rights and benefits arising from the implementation of breeding and/or *in-situ* conservation programs from the seller to the buyer.

**Intellectual Property Rights**

Intellectual property rights are not a 'breeding tool' or a technique for improving the breed (Blattman, *et al*. 2002; Scholtz and Mamabolo, 2006). They pertain to the value of a product or a process in a market. By introducing a legal tool like intellectual property rights into a new sector, the climate for competition and for production may bealtered. Thus, there is a need for analysing the consequences that this introduction has already had and the probable consequences it will bringin the future. This has not yet been done for the animal sector.

Ownership and contracts are two dimensions of property rights relevant to the animal sector. The limitation of these legal tools is the effect in relation to third parties. Here various forms of intellectual property rights become relevant as these general rights are enforceable upon third parties (within the same jurisdiction). By the Agreement on Trade-Related aspects of Intellectual Property Rights (The TRIPS) as a part of the World Trade Organisation (WTO) in 1994, international harmonisation of intellectual property rights were sought by laying down minimum requirements for all types of IPRs[203].

embryos". Legal Aspects of Exchange, Use and Conservation of Farm Animal Genetic Resources.FNI Report p. 10. 1/2007

[203]Walløe Tvedt, M., Hiemstra, S.J., Drucker,A.G.,Louwaars, N., Oldenbroek, K. 2007 "Legal Aspects of Exchange, Use and Conservation of Farm Animal Genetic Resources". FNI Report p. 12. 1/2007

Development of legislation in line with the WTO Trade Related Intellectual Property Rights Agreement, calling for the establishment of minimum standards for intellectual property rights, is novery widespread, as yet[204].

The patent system is considered necessary or at least useful to encourage and finance the realisation of the prospects of biotechnology in this field, yet it must be balanced to the (short-term) needs of farmers and it must be avoided that the system is used for more commercial purposes in a way that distorts the patent system from benefiting society at large. This raises the question of farmers' privileges (possibly specific to small-scale farmers) and the strength of research exemptions in patent law for instance. It also entails considering a system that rewards the contribution of farmers to the creation and conservation of FAnGR.

**In Albania** TRIPS Agreement, was ratified by "Ratification of Protocol of Accession of Albania to the Marrakesh Agreement Establishing the World Trade Organization" Act No 8648 of 28 July 2000, (*OJ of RA No 24, August, p. 24*) "Accession of the Republic of Albania to the Amendment of TRIPS agreement" Act No 9950 of 7 July 2008, and by the Council of Ministers Decision of 6 December 2006 (*OJ of RA No 122, July, p. 5395*).

The above arrangements require the treatment of issues related to the FAnGR Intelectual Proprety Right. Currently, Albania has no legislative products such as an Act or a Council of Ministers Decision ect .. dealing with these issues. The opportunity and the necessity of treating these issues is associated not only with the obligations arising from the accession of Albania in such international agreements as well as, the fact that the construction of a patent system for FAnGR can be very useful for its protection, development and sustainable use. The implementation of TRIPS Agreement requirements arising in the case of FanGR, primarily seeks to clearly define which property rights can became available for the animal sector in Albania. The process will be successful only if it will provide an answer for the following questions:

(i) Who is the holder of the right (entitled)?
(ii) What is the subject matter that is protected by the right?
(iii) What is the scope of the right? Or which acts are under the exclusive right of the holder of the intellectual property rights?[205]

[204]Hiemstra, S.J.,Drucker, A.G., Tvedt,M.W., Louwaars,N., Oldenbroek,J.K., Awgichew,K., Abegaz Kebede,S., Bhat, P.N., MarianteA. da Silva. 2006. "Exchange, Use and Conservation of Animal Genetic Resources"Policy and regulatory options. Centre for Genetic Resources, the Netherlands (CGN).

[205]Walløe Tvedt, M., Hiemstra, S.J., Drucker,A.G.,Louwaars, N., Oldenbroek, K. 2007 "Legal Aspects of Exchange, Use and Conservation of Farm Animal Genetic Resources". FNI Report p. 12,20-21, 1/2007

## Chapter VII

## Analyze and Develompent of the Albanian legal issues relevant to animal welfare

Animal welfare is a complex, multi-faceted public policy issue that includes important scientific, ethical, economic and political dimensions. Because food animals are important to human welfare – as a source of nutrition and income – concern for animal welfare is inextricable from concern for human needs. This is particularly the case in countries with developing economies, where current and expected population increases are putting pressure on food security and economic growth (FAO, 2002)

Disregard for animal welfare often leads to poor animal health increased susceptibility of animal populations to disease and injury and poor quality or contaminated animal – based food products – with resulting economic loss (Broom, D. 2001)

In Europe, animal welfare has been the subject of national legislation and regional agreements for more than a generation, largely due to more exposure to and discomfort with the treatment of animals in industrialized farms and slaughterhouses. In light of increased international trade, globalization of animal health concerns and pressure for harmonization of food safety standards, many other countries are also choosing to regulate animal welfare (Harper, G. & Henson, S.2001, Mitchell, 2000). To improve their legislative frameworks, some countries use or adapt pre-existing legislation on the prevention of cruelty to animals, while others draft new animal welfare laws, blending national and local concerns with international animal welfare principles. Because the earliest animal welfare legislation was developed in countries where industrialized production is the norm, these legislative instruments tend to focus on farm animals housed, transported and slaughtered in high technology environments designed to intensify production. However, animal welfare legislation need not be limited to industrialized production. Well drafted legislation can and should apply to other types of production such as subsistence farming and small-scale commercial production. Different scales of production raise different concerns (FAO, 2009), but the basic animal welfare principles are common to all.

### The basic animal welfare principles

According to the decision of the United Kingdom Farm Animal Welfare Council (FAWC, 1993) the “Five Freedoms” that present the basic animal welfare principles are:

1. freedom from hunger and thirst – by ready access to fresh water and a diet designed to maintain full health and vigor;
2. freedom from discomfort – by the provision of an appropriate environment including shelter and a comfortable resting area;
3. freedom from pain, injury or disease – by prevention or through rapid diagnosis and treatment;
4. freedom to express normal behavior – by the provision of sufficient space, proper facilities and company of the animal's own kind; and
5. freedom from fear and distress – by the assurance of conditions that avoid mental suffering.

As a complement to the Five Freedoms, 12 criteria for the assessment of animal welfare have been identified by the Welfare Quality Project (WQP), a research partnership of scientists from Europe and Latin America, funded by the European Commission. The WQP aims to develop a standardized system for assessing animal welfare - a system that would be implemented in Europe - and more generally to develop practical strategies and measures to improve animal welfare (Welfare Quality, 2009). The WQP criteria for the assessment of animal welfare are:

a. Animals should not suffer from prolonged hunger, i.e. they should have a sufficient and appropriate diet.
b. Animals should not suffer from prolonged thirst, i.e. they should have a sufficient and accessible water supply.
c. Animals should have comfort around resting.
d. Animals should have thermal comfort, i.e. they should neither be too hot nor too cold.
e. Animals should have enough space to be able to move around freely.
f. Animals should be free from physical injuries.
g. Animals should be free from disease, i.e. farmers should maintain high standards of hygiene and care.
h. Animals should not suffer pain induced by inappropriate management, handling, slaughter or surgical procedures (e.g. castration, dehorning).
j. Animals should be able to express normal, non-harmful social behaviors (e.g. grooming).
m. Animals should be able to express other normal behaviors, i.e. they should be able to express species-specific natural behaviors such as foraging.

n. Animals should be handled well in all situations, i.e. handlers should promote good human-animal relationships.

o. Negative emotions such as fear, distress, frustration or apathy should be avoided, whereas positive emotions such as security or contentment should be promoted.

Regarding to the animal welfare issues, the 72nd General Session (May 2004) of International Committee of OIE has adopted the following principles:

(i) There is a critical relationship between animal health and animal welfare.

(ii) The internationally recognized "Five Freedoms" provide valuable guidance in animal welfare.

(iii) The internationally recognized "three Rs" (reduction in number of animals, refinement of experimental methods and replacement of animals with non-animal techniques) provide valuable guidance for the use of animals in science.

(iv) The scientific assessment of animal welfare involves diverse elements which need to be considered together, and selecting and weighing these elements often involves value-based assumptions which should be made as explicit as possible.

(v) The use of animals in agriculture and science and for companionship, recreation and entertainment makes a major contribution to the well-being of people.

(vi) The use of animals carries with it an ethical responsibility to ensure the welfare of such animals to the greatest extent practicable.

(vii) Improvements in farm animal welfare can often improve productivity and food safety and hence lead to economic benefits.

(ix) Equivalent outcomes based on performance criteria, rather than identical systems based on design criteria, should be the basis for comparison of animal welfare standards and recommendations

In 1996 the United Nations elaborate and adopt a Universal Declaration on Animal Welfare (UDAW). The four UDAW principles agreed upon in the Manila meeting are as follows:

(i) The welfare of animals shall be a common objective for all states.

(ii) The standards of animal welfare attained by each state shall be promoted, recognized and observed by improved measures, nationally and internationally.

(iii) All appropriate steps shall be taken by states to prevent cruelty to animals and

to reduce their suffering.

(iv) Appropriate standards on animal welfare shall be developed and elaborated on such topics as the use and management of farm animals, companion animals, animals in scientific research, draught animals, wild animals and animals used for recreation

**Animal welfare-European Union**

The three Council of Europe (COE) conventions of principal interest for farm animal welfare are:

*The European convention for the protection of animals kept for farming purposes (ETS No. 87) of 1976, revised in 1992 (ETS No. 145)*[206]*.* The Convention is a framework convention introducing principles for the housing and management of farm animals, in particular for animals in intensive farming systems. It is complemented by 12 recommendations for specific species (including goats, sheep, pigs, cattle, turkey and other domestic fowl). The convention creates a standing committee that approves recommendations and facilitates settlement of any disputes between parties on the convention's implementation.

*The European convention for the protection of animals during international transport (ETS No. 65) of 1968, revised in 2003 (ETS No. 193)*[207]. The revised version of ETS No. 65 applies to all vertebrate animals and is based on the principle that local slaughter is preferable to animal transport. The convention is supplemented by detailed recommendations for the international transport of cattle, sheep, goats, pigs, poultry and horses. It covers a variety of topics related to transport, including the preparation of the journey from loading to unloading; vehicle design; animal fitness for travel; animal handling; veterinary controls; and certification. It also sets out special conditions for transport by road, air, sea and rail.

*The European convention for the protection of animals for slaughter (ETS No. 102) of 1979*[208].ETS No. 102 covers the treatment of animals in slaughterhouses and slaughter operations.

[206]Was adopted by Council Decision 78/923/EEC and then Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes [Official Journal L 221/23 of 8.8.1998].
Council Directive 98/58/EC applied without prejudice to other pre-existing instruments, namely, Directive 88/166/EEC, Directive 91/629/EEC and Directive 91/630/EEC. See Council Directive 98/58/EC, art. 1.3.

[207]Council Regulation (EC) No. 1/2005 on the protection of animals during transport and related operations of 22 December 2004 [Official Journal L 3 of 5.1.2005)

[208]Was adopted by Council Decision 88/306/EEC and updated by Council Directive 93/119/EC. Council Regulation (EC) No. 1099/2009 on the protection of animals at the time of killing of 24 September 2009 [Official Journal L 303/1 of 18.11.2009]

The first animal welfare legislation by the then-European Economic Community (EEC) dates to 1974 when Council Directive 74/577/EEC on the stunning of animals before slaughter. EEC legislation on animal welfare mainly involved adopting or incorporating the COE conventions into the laws of the EEC and after 1992, into the regulations of the European Community (EC) common agricultural policy and internal market (Horgan, R. 2006).

The Lisbon Treaty of 2004 reiterated the language of the protocol on Protection and Welfare of Animals [209]. Therefore, the treaty provides for the first time a clear constitutional basis for animal welfare in the EU. With slight variations, Article III-121 crystallizes and makes legally binding the language of the Amsterdam Treaty protocol, as follows:

"In formulating and implementing the European Union's agriculture, fisheries, transport, internal market, research and technological development and space policies, the Union and the Member States shall, since animals are sentient beings, pay full regard to the requirements of animal welfare, while respecting the legislative or administrative provisions and customs of Member States relating in particular to religious rites, cultural traditions and regional heritage".

Two other significant documents that address the future objectives and strategies on animal welfare in the EU are: first, the Community Action Plan on the Protection and Welfare of Animals 2006-2010 (Com (2006) 13) [210] and second, the Animal Health Strategy for the European Union 2007-2013 (Com 539 (2007))[211] (Horgan. R. 2006).

Animals have to be killed to produce meat, or in connection with other farming activities. However, in order to ensure animal welfare, EU legislation stipulates that they must be killed in a way which avoids unnecessary suffering. Directive 93/119/EC requires that animals are spared any avoidable excitement, pain or suffering during slaughter or killing and related operations, both inside and outside slaughterhouses. In order to develop the legal framework related to animal welfare an intense scientific research

[209] Protocol on Protection and Welfare of Animals (1997). The Amsterdam Treaty entered into force in 1999.

[210] Community Action Plan identifies five key actions:

1. upgrading existing minimum standards for animal protection and welfare;
2. giving a high priority to promoting policy-oriented future research on animal protection and welfare and the application of the 3Rs principle (see Chapter II, Section 2.1);
3. introducing standardized animal welfare indicators;
4. ensuring that animal keepers/handlers and the general public are more involved in animal welfare issues and informed about current standards of animal protection and welfare and fully appreciate their role in promoting these values; and
5. continuing to support and launching further international initiatives to raise awareness and create a greater consensus on animal welfare.

[211] The objectives of Animal Health Strategy are the promotion of "farming practices and animal welfare which prevent animal health related threats and minimize environmental impacts in support of the EU Sustainable Development Strategy"

activity is taking place[212]. The European legislation dedicates special attention to animal welfare even in case of animals being used for experimental purposes[213].

European Union (EU) law contains a range of helpful provisions designed to protect farm animals on-farm, during transport and at slaughter.A legally binding Protocol recognises animals as "sentient beings" and requires the EU and its Member States, when formulating and implementing their policies in certain key areas to pay "full regard to the welfare requirements of animals". EU law has prohibited some of the worst aspects of industrial livestock production: veal crates have been prohibited from 2007, conventional battery cages for egg-laying hens from 2012 and sow gestation crates from 2013 (Stevenson, P.2004)

**National regulation of animal welfare**

There is much diversity in national legislation on animal welfare. Animal welfare provisions may appear in a free-standing animal welfare law or may form part of a broader law on animal health and welfare or veterinary matters in general. Several countries have adopted constitutional provisions that provide a basis for the protection of animals. The most common form of legislation, around the world, criminalizes cruelty against animals. Many nations limit animal welfare statutes to certain animals used in scientific research or entertainment, whereas for farm animals

they regulate only slaughter methods (FAO, 2010).

The non-binding instruments are another development in framework of legislative and regulatory options for animal welfare. There are two types of non-binding instruments commonly employed by countries wishing to further animal welfare. The first type is a document defining a National Animal Welfare Strategy, such as is used in Australia with the aim of coordinating or harmonizing the animal welfare legislation of the various states and, the second, is a model code of best practice/ model codes of practice for animal welfare, which are entirely non-binding but serve as guides for best practice, like the Code of Recommendations[214], which the farmers in the United Kingdom are legally required to know.

Different European and Balkan region countries have developed animal welfare legislation in multiple forms and levels and for different categories and activities conducted with animals. For example, **Czech Republic** "Animal Protection Act"

[212]Grandin, T. 3013."Making SlaughterhousesMore Humane for Cattle,Pigs, and Sheep" (literature cited) Annu. Rev. Anim. Biosci. 2013. 1:491–512

[213]Directive 2010/63/EUof The European Parliament and of The Council of 22 September 2010on the protection of animals used for scientific purposes

[214] The United Kingdom (UK) Animal Welfare Act (2006)

(283/1992) requires animal experiments to be approved by the Central Commission for Animal Welfare (CCAW). Legal regulations to protect animals in human care, including laboratory animals, include No. 246/1992 Coll. (Act) on the protection of animals against cruelty and 311/1997 Coll. (Decree) on breeding and use of experimental animals.

In **Italy** the legislative decree 116 of January 1992, implementing Directive 86/609/EC contains specific provisions for experiments involving genetically modified animals. Animal experiments are licensed by the Veterinary Department of the Ministry of Health.

**Greece** ratified the Convention of the Council of Europe for the protection of vertebrate animals used for experimental and other scientific purposes (1986) by Act 2015/1992. Directive 86/609/EC was transposed into Greek law by p.d. 160/1991 that places control over who is entitled to apply to conduct animal experiments on vertebrate animals under the auspices of the Ministry of Agriculture.

In **Romania,** "Protection of Animals" Act (205/2004) contains specific provisions with regards to Conditions concerning animals keeping, Conditions concerning animas trade, animals transport as well as using the animals in advertising aims, shows, competitions and similar events, surgical interventions, sacrificing and killing of the animals, using the animals in scientific aims or in other experimental aims, the welfare of laboratory animals etc. Law no. 305 (2006) ratified the European Convention on the Protection of Vertebrate Animals used for Experiments and Other Scientific Purposes (1986).

**The Hungarian** XXVIII "Animal Welfare" Act of 1998 promotes, the protection of individual animals, the sense of responsibility in humans towards humane treatment of animals, as well as defines the basic rules for the protection of animals.

In **Austria** the "Protection of Animals" Federal Act implements different legal instruments of the European Community[215].

In **Bulgaria** the Animal welfare issues are treated in a specific act tha "Animal Protection" Act, which Chapter One, General Provisions, underlines:

Art. 6. (1) Manifestations of inhumane treatment to animals shall be prohibited. (2) As

[215]1. Directive 91/629/EEC laying down minimum standards for the protection of calves, OJ L 340, 11.12.1991, p. 28, as amended by Directive 97/2/EC, OJ L 25, 28.01.1997, p. 24, Decision 97/182/EC, OJ L 76, 18.03.1997, p. 30 and Regulation (EC) No 806/2003, OJ L 122, 16.05.2003, p. 1

2. Directive 91/630/EEC laying down minimum standards for the protection of pigs, OJ L 340, 11.12.1991, p. 33, as amended by Directive 2001/88/EC, OJ L 316, 01.12.2001, p. 1, Directive 2001/93/EC, OJ L 316, 01.12.2001, p. 36 and Regulation (EC) No 806/2003, OJ L 122, 16.05.2003, p. 1

3. Directive 93/119/EC on the protection of animals at the time of slaughter or killing, OJ L 340, 31.12.1993, p. 21, as amended by Regulation (EC) Nr. 806/2003, OJ L 122, 16.05.2003, p. 1

4. Directive 98/58/EC concerning the protection of animals kept for farming purposes, OJ L 221, 08.08.1998, p. 23, as amended by Regulation (EC) Nr. 806/2003, OJ L 122, 16.05.2003, p. 1,

5. Directive 1999/22/EC relating to the keeping of wild animals in zoos, OJ L 94, 09.04.1999, p. 24,

6. Directive 1999/74/EC laying down minimum standards for the protection of laying hens, OJ L 203, 03.08.1999, p. 53, as amended by Regulation (EC) Nr. 806/2003, OJ L 122, 16.05.2003, p. 1.

In humane treatment to animals shall be regarded inflicting pain or suffering to animals or provoking strong fear.

Art. 7. (1) Manifestations of cruelty to animals shall be prohibited. This act treats in detail all issues that are to be considered in order to enable animal welfare.

In **Croatia** "Animal Protection" Act, Zagreb, December 1, 2006, contains provisions regarding:

(i) Protection of animals during transport.
(ii) Protection at the time of slaughter or humane killing of animals kept for production purposes.
(iii) The protection of animals used in experiments and for the production of biological preparations,
(iv) Protection of wild animals in nature and Protection of wild animals while they are kept or raised,
(v) Protection of companion animals,
(vi) Protection of animals in zoological gardens,
(vii) Protection of animals used in circuses and other performances involving animals,
(viii) Protection of animals used in film and television productions, exhibitions and competitions,
(ix) Protection of abandoned and lost animals,
(x) Protection of animals in pet shops.

**Slovenia** is one of the Balkan region countries that currently has the most developed legislation in the field of animal welfare. This legislation contains among others: "Animal Protection" Act (1999). The rules including farm animals that followed the act: Transport rules (2000), Rules on the protection of farm animals (2003), Rules on the killing methods (due to veterinary reasons, for animals, one-day-old chickens and embryos)-2003, Rules on animals in experiments (2004), Slaughter rules (2005), Animal welfare council rules (2000), Rules on Ethical committee for the animals in experiments (2000). Other important acts and rules including the procedures with farm animals: "Livestock Production" Act (2002), Ecologica l farming rules (2001), "Agriculture" Act (2000), "Veterinary Service" Act (2001)..

The Animal Welfare Council (AWC) of Slovenia was established in 2001 by the Minister of Agriculture. It is a professional body with advisory role. It has 9 members, named for a period of 4 years. The members are from the fields of veterinary medicine, medicine, biology, pharmacy, zootechnics (animal science) and two members are from animal

welfare organizations. The Ethical Committee for the animals in experiments was established in 2005.

The **Macedonian** "Animal Welfare" Act (January 2008) contains provisions addressing issues related to:

(i) the protection and welfare of animals kept for farming purposes;
(ii) the protection and welfare of animals during transport;
(iii) the protection of animals at slaughter and killing (in slaughterhouses and in diseases control situations);
(iv) the protection of pets and zoo animals;
(v) the protection of animals used for experimental or other scientific purposes; *and*
(vi) the protection of stray animals.

**Reflection on Albanian legislation and midlle – terms development**

Currently, Albania doesn't have a specific law regarding issues related to animal welfare. The only law containing some provisions on this regard is the "Veterinary Service in the Republic of Albania" Act, No. 10465, 29/9/2011 [216] . It is the first attempt and accomplishment in the field of animal protection. It creates the conditions and the necessary spaces to approximate the Albanian legislation with EU directives and regulations. In drafting it the Albanian legislator was based, mainly, in two foreign laws concerning the veterinary service. The Bulgarian which was adopted at the time when Bulgaria was to join the EC and the Croatian which, in turn, is based on the Slovenian one adopted in 2004, when Slovenia just entered the EC. Furthermore, the Albanian legislator kept in consideration the obligations arising from the membership to the OIE.

The main goals of this law can be listed as follows:

(i) protection and improvement of animal and public health,
(ii) protection of the environment and animal reproductive health,
(iii) protection of animals from torture and of animal welfare provision,
(iv) protection of wild animals.

Its objective is to set out the basic principles in animal protection and welfare, according to theinternational standards of OIE and the EU. It is partially harmonized with 14 directives and 11 regulation of the EU.

[216]Chapter IV "Animal Welfare" Session 1, General requirements for animal welfare, (4 articles); Session 2, Animal welfare at slaughter and during transport, (5 articles); Session 3, Companion animals and dogs used for professional purposes, hunting and others, (5articles).

It defines the concept of "animal welfare"[217], and on these bases it develops legal provisions that aims to achieve it.

Section one of Chapter IV lays down general requirements for animal protection and welfare. It states that the animal owners are responsible to comply with these requirements.

Referring to the formulation and the content of these provisions, it is evident, that in some cases, they contain general and repeated statement. For example, art. 64 states: *in any case, despite the keeping system used in animal farms, animals should have sufficient spaces to be able to move around freely, in such way to eliminate all the factors that can cause them suffering or injuries, and enable the normal fulfillment of their physiological needs.* While the same demands, but much more detailed, are present in art. 66, paragraph c, (ii), (iii), (iv), (v)[218]. Art. 65[219] contain three different provisions which lack coherence to be part of the same article. In paragraph one is given a general statement that, in unequivocally terms renews one of the main aims of the law (art. 1). Paragraph 2 is a provision which appears to be disconnected and isolated from the others, while paragraph 3 contains a delegation provision, which serves as a legal base for the production of bylaws, and as such it seems to be forcibly
involved in this article.

**Animals used for experimental purposes**

Art. 67, composed of 4 paragraphs, treats issues regarding the welfare of animals used for experimental purposes. This article, compared with provisions that addresses the same matter in other countries legislations, shows that the Albanian legislature has

[217] "Animal welfare" has to do with the conditions in which the animal lives, whether it is healthy, able to feel comfortable, well nourished, safe, able to express natural behaviors and not to suffer from unpleasant conditions, like fear, pain and anxiety. Article 4 "Definitions", Act "On the Veterinary Service in Republic of Albania", No. 10465, date 29.9.2011

[218] Article 66
Obligations of owners and animal caretakers.
Owners and custodians of animals and livestock farm managers are obliged:
c) to ensure to each animal, depending on type, age and race:
ii) location, condition and a suitable microclimate of residence, in accordance with animal needs;
iii) sufficient space for accommodation, freedom of movement and possibility to lay down;
iv) stalls and shelters built with materials that can be easily cleaned and disinfected, with adequate ventilation system and acceptable temperature;
v) sufficient feed and water and free access to the feed and water supplies;

[219] Article 65
Welfare requirements
1. Animals are breed and used in ways that suits the purposes of their maintaining, in accordance with their physiological needs and type characteristics.
2. Surgical intervention or manipulations, which causes or may cause animal pain and distress are performed by anesthesia.
3. The Minister approves the minimum requirements of protection and welfarein breeding, production, use, sale, slaughter, suppression and transportation for every type and categories of animals.

chosen to treat only in general terms issues associated with the welfare of animals used for experimental purposes.

In addition, this article does not treat the case of animals used for the production of biological preparations. The **Croatian** law on animal welfare contains 14 articles regarding animals used for experimental purposes and for the production of biological preparations, and the **Hungarian** one contains 11 articles for the same issue. Paragraph 4 of art.67states that the breakdown of legal requirements for this matter is to be implemented at the level of regulations/orders that must be approved by the Minister of Agriculture. The decision to delegate to the Minister of Agriculture the implementation of this legislation with bylaw acts, reflects an inadequate assessment for this issue. Experimental animals are, among others, the subjects who are mostly exposed to action or factors that can cause pain, stress, suffering, etc. While, it is not rare to encounter situations, where scientific staffs, interested in results, omit issues related to animal welfare. In particular, this problem is present in Albania where the experience and culture, but also the legal obligations for the protection of animals used for experimental purposes, have been absent. In order to create a new social behavior, all the requirements are to be set by law.

**Midlle – terms development**

For a better approximation with the EU legislation and international standards, it is necessary to integrate this legislation with provisions regarding to:

(i) The breeding of animals for use in experiments and for the production of biological preparations,
(ii) Prohibition of the use of animals in experiments,
(iii) Notification of experiments,
(iv) Examination required to work with animals used for experimental purposes,
(v) Notification of the use of animals for the production of biological preparations etc…

In developing countries, as is the case of Albania, it is recommended to create law enforcement public facilities. In Croatia the “Animal Protection” Act established the Ethic Committee[220] as a public institution, which treats problems regarding the use of animals

[220]**Ethics Committee**Article 34
(1) The Minister shall establish an Ethics Committee.
(2) The membership of the Ethics Committee shall include experts in the fields of veterinary medicine, human medicine, biology, pharmacy, biochemistry and agronomy, as well as representatives from the state administration body responsible for science and education and representatives from animal protection associations.
(3) The Ethics Committee shall:

for experimental purposes and for the production of biological preparations. This experience is recommended to be taken in consideration by the Albanian Assembly.

**Animal welfare at slaughter.**

In section 2 of the "Veterinary Service in Republic of Albania" Act, treats issues related to animal welfare at slaughter and during transportation.

Art. 68 states that the slaughter of animals should be performed in the most expeditious way, after stunning. The animal must be in a state of complete absence of feeling and sensitivity during all the period of exsanguination. It requires that the remove of extremities and the treatment of a carcass is to be performed only after the animal is totally exsanguinated. This provision establishes in which cases is permitted the slaughter of animals. Notwithstanding this, the provision is not exhaustive. In particular, it lacks requirement to be met for the holding and handling of animals intended to be slaughtered.

**Midlle – terms development**

For a better approximation to the EU standards and legislation it is necessary to add provisions such as:

(i) The slaughterhouse must have a covered area with feeding and drinking facilities, and, if necessary, means to tie the animals.

(ii) Animals hostile to each another due to their species, sex, age, or any other reason must be separated,

(iii) If the animal is not slaughtered immediately after its arrival to the slaughterhouse food, water, and undisturbed rest must be provided for the animal during its waiting, for slaughter. Sick, weak, or injured animals must be separated without delay and have to be slaughtered separately,

(iv) Where animals are slaughtered without previous stunning they have to be fixed in a way suitable to prevent all avoidable pain of the animal,

(v) Stunning must cause a state of loss of sensory perception that lasts until exsanguination of the animal after slaughter,

(vi) Separate provisions can apply to the slaughter of animals in the following cases:

– give opinions on ethical and animal protection issues in relation to the use of animals for experimental and educational purposes,

– propose criteria and give opinions to the competent authority during the procedure for granting authorization to carry out an experiment,

– prepare an annual report on its work and forward to the Minister, by the end of March of the current year, the report for the preceding year.

"The animal protection act"Zagreb, December 1, 2006

(a) slaughter of fowl and rabbits with a method causing immediate death;
(b) emergency slaughter, if stunning is not possible;
(c) killing of fur animals, and of farmed game and
(d) ritual slaughter

**Animal welfare during transportation.**

Issues related to animal protection and welfare during transportation are addressed by the Albanian legislator only in general terms. Art. 72, of the "Veterinary Service in Republic of Albania" Act, states that: *During transportation animal health, welfare, physiological and behaviors needs, should be ensured avoiding injuries or unnecessary pain. Animal transportation must take place with specially furnished vehicles. Carriers are required to be equipped with transport license and use vehicles approved by the competent authority. The carriers must be trained and should keep a travel register. This provision empowers the Minister of Agriculture to adopt bylaws for animal welfare during transportation. Likewise, procedures and documentations required for transportation are approved by the Minister. In case of long journey, water feed and rest must be offered to the animals at suitable intervals and should be appropriate in quality and quantity to their species and size. During transportation, transporters and carriers must provide as soon as possible, to sick animals, veterinary medical assistance.*

**Midlle – terms development**

In general terms, the actual legislative solution creates the necessary conditions to develop a legal framework aligned with international standards and EU directives and regulations. It is necessary to draft, in accordance with Art. 72, the respective bylaw framework. Among others, the bylaw framework must treat issues related to:

(i) determination of minimum distances, means of transport and transporter authorization, taking into account the road quality and the Albanian terrain,
(ii) transporters training requirements,
(iii) conditions of resting or transfer places and assembly centers,
(iv) rules of control and maintenance of transport means,
(v) parameters regarding sufficient floor area and height, required for animal resting during transportation, in accordance to the animal species, age and physiological conditions,
(vi) in case of aquatic animals transportation, parameters regarding the quantity

of water needed, adequate temperature, oxygenation facilities etc… according to each species needs.

Section III of Chapter IV treat issues related to animal welfare and protection, with regard to pets and dogs used for professional purposes, like hunting etc… Art. 73 states that dogs or pets owners must, in any case, obtain the veterinary medical passport and should implement the protocol for periodic control and animals vaccination. The same article contains provisions regarding animal housing, feeding, reproduction control and pets behavior in public places.

These provisions are necessary but insufficient. In Albania the pets keeping phenomenon, in particular dogs and cats, is relatively new. The spreading frequencies of this phenomenon are progressively growing. In the meantime the public level of knowledge about animal needs and requirements to ensure their welfare is low. This new culture, in Albania, is now on a formation stage. This fact requires a detailed development of the legislation regarding this category of animals. It should provide, among others, obligation for:

(i) local establishment of training centers for the owners
(ii) mandatory owners training and equipment with the keeping permission,
(iii) local authority control for the fulfillment of the conditions that enable animal welfare and protection,
(iv) protection of pets that belong to an alien species, or that are protected by the biodiversity legislation.

**Animals kept in zoos, circuses or pet shops**

Regarding animals that are kept in zoos, circuses or pet shops, Article 74 obliges owners/managers to fulfill the conditions that enable animal welfare and protection. This provision, formulated in such way, expresses only a general requirement, also encountered in other parts of this act. For this category of animals, it is necessary to establish legal conditions, that arises due to the characteristics of the activities, for which these animals are kept. It is necessary to establish by law which is the competent authority for permission release and which are the conditions for setting up a zoological garden or for using animals for exhibition or competition. The growing trend of creating zoological mini-garden in support of another business activity, requires a specific legal regulation, which must guarantee the animals protection and welfare. It is imperative to establish by law, that owners of these mini-gardens, who, generally do this kind of investment for important economical growth of their principal business, must provide:

(i) animal housing facilities which are of such a size and equipped in such a way as to meet the basic needs of each animal species and, in addition to indoor housing facilities, outdoor exercise enclosures where necessary,

(ii) the required daily amounts of adequate feed and water,

(iii) veterinary health care,

(iv) humane treatment of animals by staff members,

(v) protection of animals from visitors,

(vi) protection of visitors from animals,

(vii) a plan for the taking care of animals should the zoological garden be closed.

It is necessary to establish by law, special provisions for the protection of animals used in circuses and other performance involving animals. The Croatian law can be a good reference point for this issue[221].

**Abandoned and lost animals**

The Albanian legislation for animal protection and welfare, does not contain provisions regarding the protection of abandoned and lost animals, the establishment of an animal shelter and the promotion of animal protection.

The provisions regarding wildlife animals established in art. 75, refers only to the case when animals are kept outside their natural environment, in zoos, aquariums, terrariums, circuses, farms etc. Meanwhile, human, economic and non, activities produces consequences on wildlife species. This situation is particularly faced in cases of activities related to the exploitation of environmental resources. In order to prevent their negative effects to wildlife animal welfare, it is necessary to establish legal provisions that prohibits actions, by which wild animals in nature are subjected to torture, either as a population or an individual animal, or are prevented from satisfying their physiological needs (eating, drinking, reproduction etc.). These provisions must prohibit:

(i) preventing access to water or to other parts of the habitat that are essential to the survival of a species, by fencing, contamination, chasing away or the like,

(ii) destroying an entire habitat or portions thereof which are essential to the

[221]The Animal Protection Act, Art.53 *Protection of animals used in circuses and other performances involving animals,*

(1) It is prohibited to keep wild animals in circuses and use them in circus performances and other performances involving animals.

(2) Severely confined animals and animals having physical defects are prohibited from being used in performances.

(3) No circus performance using animals or other show involving animals shall be held without a decision having been issued by a veterinary inspector upon the request of the party concerned.

(4) An application to change the venue of the circus shall be submitted to the competent veterinary office of theplace of destination and shall be accompanied by evidence that the circus venue has been made available and by information on the types and times of performances and on the number and species of animals.

survival of a species,

(iii) introducing alien animal species into the habitat,

(iv) capturing live animals or killing them in a way that cause them lengthy suffering, unless exceptionally justified for reasons of scientific research or for the purpose of helping a population, and

(v) other interventions having harmful consequences.

It is imperative to establish by law that public institutions managing protected parts of nature or, where applicable, holders of hunting rights, must ensure the following for wild animals in natural habitats:

a. all necessary conditions for biological survival of a natural population consistent with ecological balance,

b. restoration of existing or new habitat disturbances,

c. veterinary healthcare.

Another disposition which draws attention is art. 76 “Actions that are contrary to animal welfare”. This disposition lists 15 actions which are prohibited by law. It only repeats provisions of other dispositions and does not bring any added legal effects, therefore it should either be reworded or removed.

The Albanian legislation on animal protection and welfare, aims to create a legislative environment which is aligned with the international standards and EU directives and regulations. It is an effort, which has made its first products in terms of this new development of the Albanian legislation, and as such, it should be accepted and considered as a good base for further developments.

# Chapter VIII

# Analyse and development of the Albanian legal framework relevant to Institutions and Capacity-building to support Conservation and Sustainable Use of Farm Animal Genetic Resources

## Background

Policies, institutions and capacities developments for FAnGR conservation and sustainable economic use are part of the Strategic Priority Area 4 of the Global Plan of Action for Animal Genetic Resources.

The strategic Priorities for Action, listed in this field, aims at the development, at national and international level, of policies, institutions, instruments and capacity needed to implement the Action Plan for FAnGR[222].

At the national level, the achievement of these priorities aims at:

(i) Establish or strengthen national institutions, including national focal points, for planning and implementing animal genetic resources measures, for livestock sector development

(ii) Establish or strengthen national educational and research facilities

(iii) Strengthen national human capacity for characterization, inventory, and monitoring of trends and associated risks, for sustainable use and development, and for conservation

(iv) Raise national awareness of the roles and values of animal genetic resources

(v) Review and develop national policies and legal frameworks for animal genetic resources

(vi) Strengthen efforts to mobilize resources, including financial resources, for the conservation, sustainable use and development of animal genetic resources

At international level are defined as strategic priorities:

(i) Strengthen international cooperation to build capacities in developing countries and countries with economies in transition, for:

a. characterization, inventory, and monitoring of trends and associated risks;

b. sustainable use and development; and

c. conservation of animal genetic resources

[222]Global Plan of Action for Animal Genetic Resources *and the* Interlaken declaration, p.26-33. Commission on Genetic Resources for Food and Agriculture, FAO UN.Rome, 2007.

(ii) Establish or strengthen international information sharing, research and education

(iii) Establish regional focal points and strengthen international networks

(iv) Raise regional and international awareness of the roles and values of animal genetic resources

(v) Review and develop international policies and regulatory frameworks relevant to animal genetic resources

The *First Report on the State of the Albanian Farm Animal Genetic Resources* (2002) documented the country`s existing animal genetic resources and identified the principal challenges, demands, needs, trends and national capacity building requirements related to conservation and use of the country`s declining FAnGR. FAO based it decision to finance the TCP/ALB/3001(A) "Capacity building to support *in-situ* conservation and use of animal genetic resources" on this Report. Parts of the objectives of the project were:

(i) Build professional and technical capacity amongst key stakeholders to implement National Strategy and National Action Plan

(ii) Establish a national network to support implementation of National Action Plan.

The handling of issues related to the development of policies and institutional capacities necessary for the implementation of the National Action Plan of the Albanian Strategy and National Action Plan for FAnGR, is not complete. In many cases, it has an emphasized formal character. In general they are not developed in accordance with requirements and solutions proposed by FAO`s Guidelines. The necessity of legal framework development is not treated as priority. In most cases it is taken into account only as a liability arising from the necessity of approximating the national legislation with that of the EU and not because, from the way they will be treated and solve, will depend the success of conservation and sustainable economic use of FAnGR conservation programs. Consequently, the work done for the development of institutional capacity needed to implement the National Action Plan has not given the expected results. During the period 2002-2010 the Government of Albania has adopted a series of decisions-secondary legislation - to create the legal conditions for the implementation of National Action Plan.[223]. Notwithstanding this, Albania didn't manage to build a full legal framework in order to implement and support the institutiona l capacity development

[223] a)Regulation No. 13 of 12.1.2002 "On the Animal Reproduction"

b)Decision No. 219 of 16.05.2002 "For the protection of the buffalos indigenous breed from extinction" - amended by Decision No. 299 of 8.05.2003 – and Order No. 403 of 10.09.2002 "On the establishment of the Commission for the Buffalos Physical Assessment"

c)Decision No. 857 of 17.12.2004 "For the Support of the Livestock Breed Centres"

d) Decision No.1708, on 29.12.2008 "For the implementation of the *In-situ* conservation breeding programs for small ruminants"

process, needed to implement the National Action Plan.

**Current status of Institutional capacities**

**Institutions and stakeholders**

The major laws relevant to livestock production and Farm Animal genetic Resources define that the Ministry of Agriculture, Rural Development and Water Management (MARDWM) is the administrative authority, and a number of departments in the Ministry act as executive branches of the law.

The General Directorate of Agricultural Policies, Sector of Animal Production oversees the implementation of the "Livestock Breeding" Act and the Sector of Animal Health in the Directorate of Animal Health and Plant Protection is responsible for the implementation of the animal identification and registration.

To fulfill their responsibilities in regards of conservation and use of Farm animal genetic Resources the MARDWM, has set up a National Network.The Network is led by the National Coordinator of FAnGR. It lies on the whole country. Each of 12 regional coordinators operate in field by activating sub networks of local coordinator composed of specialists of livestock, extension service, veterinarians, AI technicians, and farmers. Regional coordinators are animal production specialists. They are part of the staff of the Regional Directorate of Agriculture, Food and Consumer`s Protection, nominated as "Animal Production Inspector". Currently this network is not operating. The Decision nr.1081, dated 21.10.2009 "On the organization and functioning of the National Food Authority," abolished the inspector position. This shift in the regional organizational structure of the Ministry of Agriculture, was not followed by measures to eliminate the consequences produced to the functioning of the National Network for Conservation, Management and Use of FAnGR. The CMD. No. 227, dated 09.04.2012, defined the National Coordinator for FAnGR as part of the organizational structure MoAFCP but without the status of civil servant. The appointment in this duty is an esclusive right of the Minister of Agriculture. Such a solution makes the position of the the National Coordinator for FAnGR to be gauged and considered as part of the minister political staff.

Consequently, the chances that the political preference affects more than the personal professional performance for the appointment to such a task are high[224].

[224]The National Coordinator should meet the following criteria:

- have a high level of professional competence in the area of AnGR management;
- be fully conversant in an official FAO language, preferably English;
- be computer literate;
- be an effective communicator and motivator; and
- have demonstrated leadership and human-management skills

Centers for Agricultural Technology Transfer in Fushe Kruja and Centers for Agricultural Technology Transfer, Korca are among the public institutions handling issues related to conservation and sustainable use of FAnGR. The Fushe-Kruja Center is oriented to the implementation of *in-situ* conservation programs of cattle and pigs breeds. The National Cryo Genes Bank is expected to be established in this Center. Korça Center is the public institution responsible for the management and implementation of *in-situ* conservation programs for native / authochthous / local small ruaminat breeds. This Center has started the establishment of National *Ex-situ in vivo* Gene Bank.

High Agriculture schools, Tirana University of Agriculture and Korca University of Agriculture are the public educational institutions where, specialists of livestock are prepared. In implementation of the scientific research reform, the scientific duties and issues were carried out from Livestock Research Institute and, it should be already carried out by groups of scientific research at the Departments of Animal Production-Tirana University of Agriculture and Korca University of Agriculture.

For implementing the National Action Plan for FAnGR the differents NGO were involved, such as ALBAGENE – National Association for Conservation and Use of Farm Animal Genetic Resources, Albanian Agro-business Council, National Breeders' Association (LEA), National Association of AI Operators, Small Ruminants' Breeders' Association (SHFBI), Heifers Albania, RASP, Institute of Organic Agriculture etc.

**Assessment of institutional capacities at country level**

Institutional capacity for FAnGR management is limited, within only a few public institutions existing in the country. Currently, programs for the conservation and sustainable use of animal genetic resources are not very well developed. Likewise, there is no nationwide program for animal identification and recording was implemented. Services for assessing the animals by their phenotype and genotype are non-existent. Reproduction takes place by the free multiplication method. Although a number of regulations have been compiled by the Ministry of Agriculture, their implementation, in many cases, is not done. The science-based infrastructure for animal breeding is not extended to the various regions of Albania. The lack of a nationwide program for animal identification and recording makes the observation of zoo-sanitary rules by small-scale animal breeding farmers practically impossible. The Department, which is in charge of activities involved in animal breeding and traceability is in place, however, it has not been

FAO. 2011. Developing the institutional framework for the management of animal genetic resources. FAO Animal Production and Health Guidelines. No. 6. Rome

implemented yet due to the lack of funding and proper infrastructure. The limited capacity of other stakeholders makes the issues more complex. To implement these activities and expand its effect nationwide, the stakeholder involvements is essential. Not only will a breeders' association backstop the activities as an implementing organization, but also research and educational institutions will be able to establish the proper science-based infrastructure. However, there is no such association in Albania other than the ALBAGENE- National Association for Conservation and Use of Farm Animal Genetic Resources and Albanian Agro-business Council. These NGO-s has no possibility of contributing to the development process of animal husbandry and are unable to perform recording and registration on the required level. Research and educational institutions also lack adequate resources, hindering the development of FAnGR and the dissemination of knowledge to farmers. For the prevention of infectious diseases, implementation of an animal identification system and control over animal movement are crucial. Meanwhile, it is especially hazardous that local veterinarians do not utilize the diagnostic capacities of the national laboratory, thus, detection of numerous diseases is inadequate. A veterinarian may allow the meat of diseased animals to be marketed without testing, which can be potentially harmful. In fact, the safe movements and trade of animals depend on the availability of a comprehensive system of animal identification and registration.

Resources are required for the establishment of an animal identification and recording system, the registration of all farms, natural and legal entities involved in livestock husbandry, animal breeding activities, financing the work for monitoring of animals' movement by local veterinary services, and for building a network for the gathering and communication of information. A substantial enhancement and application of national capacity for the management of FAnGR, with new institutional models (e.g. breeders' association) and collaboration among public institutions and between public institutions and private farmers, is therefore required if the activities of the Ministry of Agriculture are to be fully implemented.

The work results for the administration of Agro-biodiversity of Farm Animal Genetic Recourses of Centers of Agricultural Technology transfer, Fushe Kruje and Korca and the Agricultural University, shows that it is time to find more effective institutional solution. Referring to thedeclaration of the Minister of Agricultural and Food in the *VI*$^{th}$ Symposium

for Biodiversity[225], it is time to discuss further legislative developments which enable the option of establishing the National Center for Biodiversity Management in Farm Animals.

The establishment of the Agency for Agricultural and Agrarian Development, can be considered one of the most important development in the context of the capacity building for the management of Agro-biodiversity. This Agency is the executive authority of the MoAFCP for the implementation of the government decisions No. 219 of 16.05.2002 and No. 1708, of the 29.12.2008, for subsidizing local breeds at risk of extinction.

**Possible middle-terms developments**

The legislative developments, in order to align it with the EU legislation and the requirements of international convention and documents, remain a permanent task of the Albanian Government. Besides it, is necessary to increase the institutional capacities needed to manage the genetic stock of farm animal. Referring to the strategic priorities for action set out by the Global Plan of Action (Interlaken, 2007), FAO recommends the establishment and operation in each country of the *National Coordinator for the Management of Animal Genetic Resource*s and *National Focal Point for the Management of Animal Genetic Resources*[226].

Referring to the Albanian conditions, which according to the statement of the Minister of MoAFCP (September 2012) [227], are characterized by lack of institutional structure and capacities necessary for the implementation of the National Strategy and Action Plan for FAnGR, one of the possible solution, can be the construction of these structures and the support for the development of national and local capacities, aiming at the establishment of a National Network. All public and privat stakeholders, interested for the conservation management and economic sustainable use of FAnGR, should be part of this network (Figure 1)

[225]G.Ruli, Minister of Agriculture "... it is necessary for our country to take into account the investments to set up the necessary infrastructure that FAO recommends, in addition to the obligations arising from the necessity to realize the Global Strategic Priority for Conservation and Sustainable Use of plant and animal genetic recourses". *VI$^{th}$ International Symposium "Biodiversity, Conservation and Sustainable use for Rural Development", October, 2010*

[226]*National Coordinator:*The government-nominated person who coordinates national implementation of the Global Plan of Action for Animal Genetic Resources and leads the development and operation of a national network on AnGR. He or she is the contact person for communication with FAO on matters relating to the implementation of the Global Plan of Action for Animal Genetic Resources and with global and regional AnGR networks.

*National Focal Point*: the NC of FAnGR Coordinator for the Management of Animal Genetic Resources and his or her support staff within the institution responsible for coordinating activities concerning the management of AnGR.

FAO. 2011. Developing the institutional framework for the management of animal genetic resources.FAO Animal Production and Health Guidelines. No. 6. Rome

[227]G. Ruli, 2010."… it is necessary for our country to take into account the investment to set up the necessary structures, that FAO recommends, in addition to the obligations arising from the necessity to prioritize the implementation of the Global Strategy for Conservation and Sustainable Use of Plant and Animal Genetic Resources"" VI$^{th}$ International Symposium on Biodiversity and Rural Development., Tirana, October, 22.

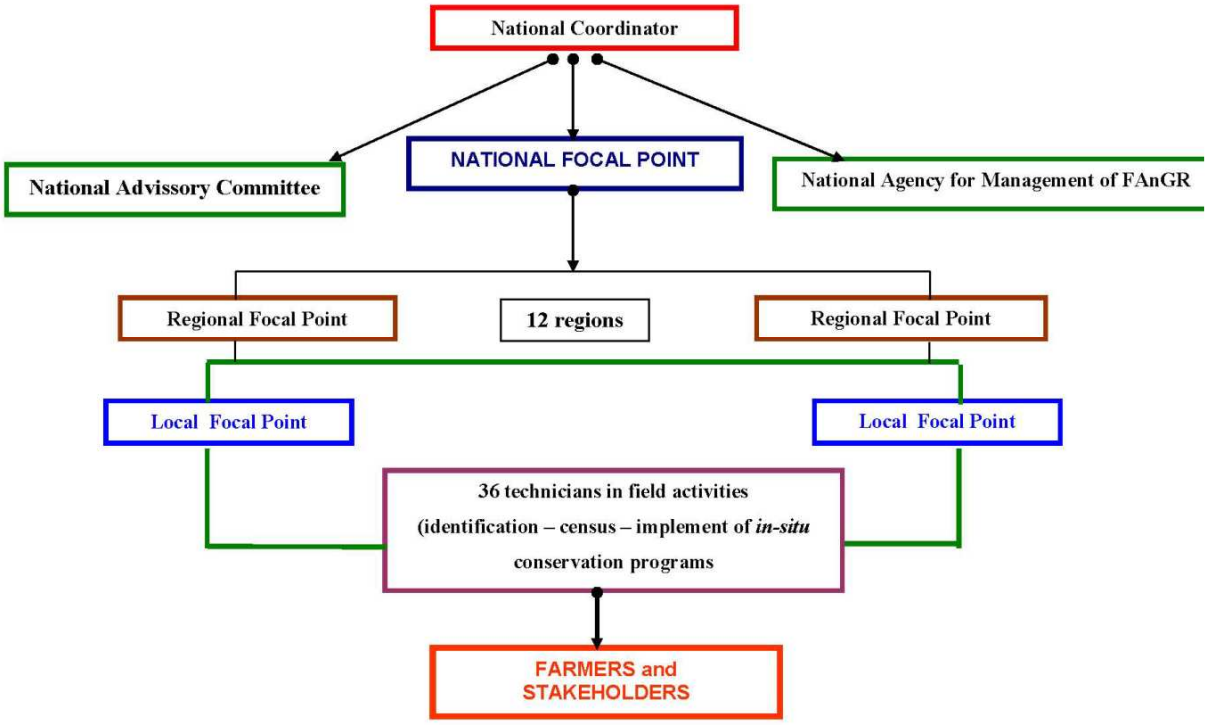


Figure 1. Albanian National Network for FAnGR (Benitez, D. 2006, FAO consulent))

FAO dedicates great important to the establishment of the National Network for Animal Genetic Resources.

"Experience has shown the importance of developing a broad network of people that are involved or interested in aspects of AnGR management. Such a network is a valuable means of ensuring that stakeholders have access to up-to-date information on AnGR management and facilitating interaction among them.

An AnGR network may include formal and informal arrangements for networking among individuals and organizations. The National Advisory Committee, working groups and expert groups are key elements. It is very important to the long-term operation of the National Focal Point that the roles and responsibilities of all bodies created within this framework are clearly defined and generally accepted by the members. If, for instance, species-specific working groups are created, their individual members may be responsible for monitoring the implementation of conservation programmes for breeds within the respective species and for providing the working group with reports on the progress of these programmes. They may also contribute to the monitoring of populations considered to be at risk or potentially at risk, and when necessary propose the initiation of conservation measures. If the members of the working group are well rooted at local level, their awareness of specific local problems and needs should be very valuable in enabling them to stimulate appropriate actions on the part of the National Focal Point. As mentioned above, the members of the National Advisory Committee and working groups usually work on voluntary basis. However, some of their expenses, such as the costs of attending meetings or other travel that they have to undertake to meet their AnGR mandate, should be covered. This requirement has to be taken into account

when the establishment of the official country network is being considered. Unfortunately, financial implications may influence both the number of the subsidiary bodies that can be created and their composition.

Developing good working relationships between the National Coordinator and the members of the country network is critical to the overall success of the National Focal Point. The National Coordinator should be able to rely on the country network for advice and support. It is important to make sure that members of the network are consulted and involved as much as possible, that they are regularly updated on new developments, that they have their own tasks and responsibilities, and that their expertise and contributions are appreciated and properly acknowledged. While the National Coordinator usually represents the country in the global AnGR network, at the national level the National Coordinator should be supported by a strong, well-developed, professional and competent country network.

In addition to the official national AnGR network, it is also important to develop a broader network of people that may be involved or interested in various aspects of AnGR-related work. This informal network may include individual breeders, farmers and pastoralists who are participating in conservation programmes; professionals involved in animal breeding and reproduction; university staff and students; researchers; and members of civil society organizations. Providing this broad layer of stakeholders with access to AnGR-related publications and other materials and enabling them to interact with members of the official network on AnGR will enhance knowledge and awareness of AnGR issues and may lead to stakeholders becoming more closely involved in the work of the National Focal Point.

An effective network will allow stakeholders to follow the process of preparing the National Strategy and Action Plan and to contribute when appropriate. A strong and well-integrated AnGR network will also be highly beneficial in the long term as a means to assist in the mobilization of the human and financial resources needed for implementing the National Strategy and Action Plan"[228]

The institutionalization of the National Network is advisable to be done by a government decision. The draft should be prepared and submitted to the Council of Ministers by the Ministry of Agriculture. This decision should define:

(i) The network structure expansion in country's regions, institutions and other private and public stakeholders, vertical and horizontal interdependencies and connections between its different chains.

(ii) The central institutions such as the Ministry of Agriculture, Ministry of Environment, Ministry of Tourism, University of Agriculture and local institutions such as local government bodies, public and / or private regional services etc.., with which the network structures should coordinate their activities at the central and local level.

(iii) Rights and duties of central public institutions (ministries) and local ones (local government authorities and regional public services) within the cooperation with the National Network for FAnGR.

[228]FAO. 2011. Developing the institutional framework for the management of animal genetic resources. p. 71-72. FAO Animal Production and Health Guidelines. No. 6. Rome

(iv) Financial needs and their sources.

The ToR of institutions that shall be part of the National Network for FAnGR should serve as base for drafting legislative framework based on which should be organized and conducted their activities. The Minister of Agriculture must approve the order for:

(i) Establishing the institutions.

(ii) Operationial rules, duties, rights, functioning and financing methods.

Based on FAO Guidelines and on the Albanian experience, hereinafter are listed the ToR's for some of the major public institutions part of the National Network for FAnGR.

**ToR of National Coordinator**

Referring to the current Albanian situation is necessary to set up clear rules on duties, rights and financial resources for the National Coordinator for FAnGR and for the development of its activities. It is important to clearly define that this institution despite the formal dependence ( Ministry of Agriculture staff or employees in scientific or academic institution / university), acts also on issues related to the environment, conservation and sustainable use of biodiversity, sustainable rural development and tourism, preservation of traditional agro cultures etc… The National Coordinator institution should be conceived as an interface between all institutions, public and non-public, in order to develop activities focused Farm Animal Genetic Resources. In defining the National Coordinator ToR it is advisable to keep in consideration FAO recommendations. Such as:

(i) The National Coordinator of Farm Animal Genetic Resources is the coordinating public institution responsible for organizing and directing the activities of identification, characterization, evaluation, conservation, development, management and sustainable economic use of farm animal genetic resources in Albania.

(ii) In particular, the National Coordinator of Farm Animal Genetic Resources is responsible to:

a. Lead and coordinate the activities of the National Network for the conservation, management and sustainable use of farm animal genetic resources.

b. Coordinate the implementation of regional / local programs and / or projects for conservation, management and sustainable use of indigenous breeds and populations of livestock breeds with all regional structures of the Ministry of Agriculture, Regional Centres of Agricultural Technologies Transfer and local government bodies, the Ministry of Environment and

Water Management, Ministry of Education and Sports, Ministry of Tourism, Agricultural University and other non-public institutions and organizations operating in this field.

(iii) The National Coordinator of Farm Animal Genetic Resources represents the country in various international organizations working in the field of conservation, management and use of farm animal genetic resources.

**ToR of National Advisory Committee**

A multistakeholder National Advisory Committee on FAnGR should be appointed by the Minister of Agriculture, with representation from governmental agricultural and environmental departments; farmers' organizations; breeders' groups; indigenous peoples' organizations; local government; community leaders; university or other research institutions; technical experts involved in research, training or extension; agricultural and livestock business interests; civil society organizations; and other relevant interests. Membership should be non-permanent. Special sub-Committees should be established for each breed. A provision of general nature on the above should be contained in the national legislation and specific by-laws should follow.

The Committee shall be chaired by the National Coordinator.

Among the tasks of the National Consulting Committee may be ranked:

a. Organizes, supports, monitors and evaluates the progress of the preparation and updating of the National Strategy and Action Plan for conservation, management and sustainable use of farm animal genetic resources;
b. In accordance with the Biodiversity Strategy, Intersectorial Strategy for Rural Development and Strategy for Agriculture and Food Sector, it identifies and lists the priorities and main objectives of the National Strategy and Action Plan for conservation and use of FAnGR by detailing them for each species / breeds of farm animals and for different regions of the country;
c. Examines programs / projects for conservation and good management of farm animal genetic resources and present to the Minister of Agriculture the planed budget for their implementation.
d. Examines needs, gives opinion on activities directions and judges the work and evaluates the results achieved for:
    (i) Development of legal and regulatory framework necessary for the administration of farm animal genetic resources;

(ii) Elaboration of criteria for assessing the risk of extinction of species / breeds / local populations;

(iii) Elaboration and update of the Red Book for breeds / ecotypes / local populations of farm animals;

e. Reviews and takes decision on the list of breeds / ecotypes / local populations of farm animals that should receive subsidies from public funds to avoid their irreversible extinction and submit it to the Minister for approval;

f. Monitors and evaluates the work of the National Network for conservation, management and sustainable use of farm animal genetic resources;

g. Encourages cooperation between central and local public authorities and representatives of other non-public actors, to organize promotional activities, raising awareness and developing local capacity for conservation, management and sustainable use of farm animal genetic resources;

h. Reviews and evaluates the Annual Working Plan for conservatios, management and sustainable use of farm animal genetic resources, which shall be submitted to the Minister for approval;

i. States on the progress and quality of work for the realization of the objectives outlined in the National Strategy and Action Plan for FAnGR.

**ToR of National Focal Point**

Following the FAO Guidelines, the National Focal Point for the Management of Animal Genetic Resources should be established as a coordinating public institution, which is responsible for organizing and directing all activities of identification, characterization, evaluation, conservation, development, management and sustainable economic use of farm animal genetic resources in Albania.

The National Focal Point is the leading national institution for FAnGR. It can be composed of:

(a) Non government organizations, including commercial sector,

(b) Training Institutions,

(c) Research Institutions,

(d) National gene bank.

The National Focal Point for FAnGR shall have the status of representative and contact institution of the Ministry of Agriculture, Rural Development and Water Management with FAO and other organizations and international organizations operating in the field of conservation, management and sustainable use of biodiversity in farm animals.

The National Focal Point should attempt to establish working groups for each major species, geographic region of the country and/or areas of FAnGR management. Working groups should facilitate and support various FAnGR management activities, including breed inventories, monitoring, characterization, genetic improvement and conservation.
Following the FAO Guidelines and current status of Albanian public and/or privat institutions that operate in field of conservation, management and use of FAnGR, the ToR of National Focal Point should:

(i) organize and implement the cooperation between farmers, breeders' associations and species experts to provide advice on specific FAnGR management requirements, to identify priorities and opportunities for sustainable use, development and conservation programmes, and to support monitoring and reporting.

(ii) develop strong national linkages within the agricultural sector to promote the integration of the National Strategy and Action Plan for FAnGR with livestock-sector development activities, and genetic-improvement programmes for mainstream breeds, thereby maintaining and strengthening the foundation for future livestock development, and achieving an appropriate level of recognition of the value of AnGR as part of the overall Albanian biological diversity.

(iii) establish strong communication links with the Ministry of Agriculture, Minisitry of Environment and other national and subnational government and/or nongovernment agencies that are responsible for biodiversity strategies, to encourage integration of agrobiodiversity and FAnGR issues into the Albanian National Strategy and Action Plan for Conservation of biodiversity.

(iv) coordinate the step-wise collection and validation of data on national FAnGR and establish a national database. The database should be updated on a regular basis to enable informed decision-making

(v) implement FAnGR monitoring programmes to determine the risk status of the country's FAnGR and identify needs for conservation measures.

(vi) regularly prepare reports on the status and trends of the FAnGR populations ensuring that the data and information collected are made available in formats that fulfil national, regional and global reporting obligations.

(vii) establish National database for FAnGRand support capacity building to use and contribute to DAD-IS.

(viii) dentify specific education and awareness needs among government policy-makers, farmers and farmer groups, livestock keepers, breeders, agricultural

business interests, members of the public and other relevant audiences, and target them with appropriate material using the most effective means of communication for each group. Communications and educational materials produced by FAO and other organizations should be widely used for this purpose. In collaboration with FAO, material produced by FAO can be made available in local languages.

(ix) identify opportunities to utilize the communications systems and networks of existing Albanian organizations, including their newsletters, conferences, meetings and other events, to increase awareness of FAnGR management.

(x) promotes education and awareness through:

a. publication, distribution and promotion of the National Strategy and Action Plan for FAnGR;
b. organization of seminars, conferences and symposium to promote and increase the awareness of various public and private stakeholders towards the values and the importance of FAnGR;
c. publication of successful projects for biodiversity conservation in farm animals;
d. encouragement, support and publication of books, booklets, posters to inform the public about local breeds, their cultural and economic value and the necessity of conservation, development and sustainable use;
e. support of media campaigns for the economic and cultural values of indigenous animal genetic resources;
f. promotion, organization and development of exhibitions and fairs with animals of local breeds and traditional products

(xi) promote research and interest among the country's scientific community by communicating descriptive and comparative information using the full range communication modes that are available, including publishing papers in scientific journals (International Journal of Agriculture, edited by Agricultural University,Tirana; Journal of Agriculture and Animal Production Science for Rural Development, edited by Academy of Science & BLEKALB Foundation, Tirana), making publications available in the DAD-IS library and contributing articles to the popular press.

(xi) identify opportunities to cooperate with neighboringcountries, develop the crossborder and regional cooperation and with international agencies that are

involved in FAnGR management, to share data, information, techniques and expertise.

(xiii) attempt to establish linkages with scientists, development specialists and other professional staff in international organizations that may assist with the country's management of FAnGR.

(xiv) promote international sharing of FAnGR under mutually agreed terms by:

- communicating information regarding the Albanian AnGR to appropriate international agencies and other countries on request;
- establishing projects to provide objective, comparative characterization of the country's AnGR;
- paying attention to health issues that restrict international movement of germplasm;
- providing comprehensive assessments of opportunities and risks involved in the use of non-indigenous germplasm in livestock production systems within the country.

(xv) facilitate the process of up-date the National Strategy and Action Plan for FAnGR in order to implement the Global Plan of Action at Albanian conditions. To achive this, the National Focal Point should:

a. prepare a comprehensive list of stakeholders, including relevant government agencies, livestock keepers, breeders' groups, local government or community leaders, agricultural business interests, environmental groups, indigenous people, livestock importers and exporters, universities and other research institutions, and any otherinterested individuals or groups that could potentially contribute to the development and implementation of the National Strategy and Action Plan

b. prepare a time schedule for the up-date development of the National Strategy and Action Plan;

c. identify training and other capacity-building needs for development and implementation of the National Strategy and Action Plan, and with assistance from international agencies, determining sources of funding, expertise and technology.

(xvi) establish strong linkages with the European Regional Focal Point (ERFP) to ensure that the National Strategy and Action Plan contributes appropriately to the implementation the Global Plan of Action, and to ensure that the

international community recognizes Albanian priorities and needs for assistance.

(xvii) evaluate progress in the implementation of the National Strategy and Action Plan annually and recommend any adjustments that are required.

(xviii) prepare annual budget`s draftandidentifyfundingopportunities forthe conservation *in-situ* and /or *ex-situ* programme and for other activities in field of management and use of FAnGR.

(xix) mobilize the funds, facilities and staff needed to administer, support and facilitate activities undertaken by the National Network of FAnGR.

**National Agency for FAnGR**

As a result of the institutional reform in the scientific research (CMD no.515, dated 07.09.2006 "On the restructuring of scientific research institutes, under the Ministry of Agriculture, Food and Consumer Protection,") the Livestock Research Institute (LRI) was abolished. dissolved. Its research tasks were delegated to the Department of Animal Products at the Faculty of Agriculture and Environment of the Agricultural University of Tirana. Meanwhile, this delegation was not followed by any supporting measure. The laboratory infrastructure and the scientific staff of LRI was not transfer to the Agricultural University. There were no invesments done for increasing human capacities and laboratory infrastructure of the Animal Production Department. Two centers were raised pursuant to the above decision, Centre for Agricultural Technology Transfer, Fushe Kruje and Korca. The CMD for these centers does not imposes tasks in the field of animal production scientific reaserch. Currently, Albania does not have any public institution responsible to handle the entirety of issues related to the identification, conservation, administration and use of FAnGR. The establishment of the National Agency for FAnGR, as a public institution under the Ministry of Agriculture, Rural Development and Water Management, tha will serve also as a host institution of the National Focal Point, is one of the options that can be handled within the formulation of policies for scientific research development and administration of FAnGR. The Council of Ministers should be invested for setting up this Agency.

The Agency, as a national public institution, with assignments in the field of research and asministration of biodiversity in farm animals may be instituted only by a CMD.

The main ToR for this Agency, that the Ministry of Agriculture, Rural Development and Water Management shall submit to the Council of Ministers, may be:

- Organizing and conducting research for the identification, characterization, conservation, economic development and sustainable use of Albanian native/ authochthous/local farm animal genetic resources.
- Up-date the National Strategy and National Action Plan for conservation, development and economical and sustainable use of farm animal genetic recourses in line with strategic priorities set out by the Strategy for Biological Diversity Conservation and Crosscuting National Strategy for Rural Development and in light of Interlaken Declaration, FAO, September 2007.
- Elaboration and implementation of the National Action Plan for conservation, development and economic sustainable use of farm animal genetic resources.
- Develop and implement national and local programs for conservation, *In-situ*, *Ex-situ* and *Ex-situ in vivo*, of endangered native breeds of farm animals
- Establishment and management of the National Genetic Bank, *In-situ in vivo* and *Criobank,* for indigenous animal genetic recourses*.*
- Establish and management of the National Data Bank for indigenous/ authochthonous/ local animal genetic recourses
- Support the national network structures responsible for the management of farm animal genetic recourses and biodiversity conservation in farm animals.
- Develop and implement training programs, community awareness and education of farmers to assess the genetic heritage of farm animals and their active involvement in the implementation of conservation program for conservation, development and economical sustainable use of this national asset.
- Relationships development with international partners and international institutions FAO, FEZ, ERFP, ICAR, GEF, PNUD etc..., in order to involve our country in international programs in the field of biodiversity conservation and development in farm animals.
- Elaborate and implement programs and projects of regional and cross border cooperation.
- Developing local capacity in response to obligations arising from the participation in international information networks, such as DAD-IS and EFABIS.
- Alignment of the Albanian legislation in the field of indigenous animal genetic recourses administration with the EU legislation.

# Chapter IX

## Conclusions and recommendations

### Conclusions

The conservation and sustainable economic use of natural resources is a constitutional principle in the Republic of Albania. Pursuant to this principle, the Albanian Assambly has ratified and currently adheres to all International Agreements, Conventions and Protocols relevant to conservation and use of the biological diversity, quality and food safety, animal welfare, protection of copyright and patenting etc…

As a member of FAO, Albania participates to different programs implemented by this organization. Albania has signed the Interlaken Declaration on Animal Genetic Resources and is active in implementing the Global Plan of Action for Animal Genetic Resources.

In response to FAO recommendations for developing national capacity needed to elaborate and implement policies and programs for conservation and sustainable economic use of FAnGR, Albania has drafted the National Strategy and Action Plan, as part of Crosscutting National Strategy for Rural Development. Its up-date in light of Strategic Priorities for Action of the Global Plan of Action is necessary.

Policies for conservation and sustainable use of FAnGR, in general, and native / authochthounous / traditional / local animal breeds, in particular, fail to provide an effective solution for the problematics arising out and during these programs implementation.

The Albanian institutional capacity needed to implement the National Plan of Action for Conservation and Sustainable use of FAnGR are insufficient. Farmers capacity to implement breeding programs and *in-situ* conservation programs is insufficient. The level and quality of cooperation between farmers in order to implement these programs is stumpy. Institutional infrastructure, necessaries public and /or privat services such as identification /eartage animal matriculation, performance recording control and tools for implementation of conservation and sustainable use programs, are held at a low level.

The level of awareness of the decision-makers, farmers and other stakeholders towards the values of native / authochthounous / traditional / local animal breeds is unsatisfactory. Farmers interest on breeding these breeds, which are characterized by low levels of

productivity, and consequently low income for family farms, is scarce.

In the context of meeting the requirements and standards set out by the Stabilisation and Association Agreement, Albania has developed an intensive process for drafting agricultural legislation in accordance with EU legislation. During this process issues related to conservation and sustainable use of biological diversity in farm animals, were not treated in a special way. Often they are treated in the context of meeting the requests for legislative support of Strategies and Action Plans for agriculture development, rural sustainable development, environmental and biological diversity protection.

Animal genetic resources related to national legislation encompasses various elements which can be grouped in specific areas such as: conservation, use, breeding, animal health, animal welfare, farm and land management, food safety and food control, marketing of animal product, improvement, establishment of associations, agricultural research and biotechnology.

The Albanian legislation treat only in general terms issues relevant to conservation and sustainable use of FAnGR. Spaces for interpretation, gaps, ambiguities, overlapping, ways of structuring the legal provisions, references to same issues raised up by international legal framework and the poor quality of reflection to the Albanian one, are present at all levels of this legislation - primary, secondary and sub-ordinary.

Issues related to elaboration and implementation of programs for *in-situ*, conservation, *ex-situ* cryoconservation, gene bank, and *ex-situ in vivo* of native/ authochthnous/ traditional/ local animal breeds, are not treated as a special and integral part of this legislation. In most cases for these issues are used only specific provisions on livestock production legislation. In particular, the current legislation, does not treat concepts and issues related to the conservation of FAnGR, in accordance with the requirements of international and EU law and / or other countries of the region with historical, traditional, geophysical, environmental and biodiversity features similar with Albania. Among these concepts and issues can be listed:

- Concepts:“ beed of animal”, “*In-situ*” conservation, “*Ex-situ*” conservation, “Gene bank”, “rescue station”, “Farmers association” “ Herd book” ‘ Genealogic book” ect.
- Issues: Register of breeds with a zootechnical assessment, Red book for endangered breeds, Definition of the eligible species of farm animals and the criteria for determining the threshold of loss to farming of local breeds, Programme for conservation of farm

animal genetic resources, Evaluation and monitor the genetic variability, Indentification and monitoring of Indigenous breeds and raditional breeds of farm animal, Establish Gene bank of farm animal genetic resources, Implementation of an Information system - National database of FAnGR, *On- farm* conservation programs,Farmer`s conservation organizations,ect.

The Albanian legislation does not address issues related to legislative measures, responsible institutions and infrastructures necessary for conservation of FAnGR and in particular for native / authochthounous / traditional / local animal breeds in cases of natural or humanitarian emergencies. The references “on Veterinary Serv ice” Law are insufficient.

Legislative solutions that regulate activities within the implementation of programs for sustainable use of FAnGR, generally fail to create favorable conditions for the success of these programs. The use of concepts such as "base breed program" and "breed program", and the legal conditions defining the responsible institutions for their implementation, financial sources, monitoring and decision making, beneficiaries and benefit sharing are accompanied by uncertainty, gaps and a large range of interpretations of right and duties of all those public and private institutions as well as public and private services, that the law foresees to be part in these programs implementation.

The treatment of legislative issues related to economic sustainable use of Albanina native / authochthounous / traditional / local animal breeds, sensitively strains the legal space that can be used to realize the value-add of these livestock breeds. Shortages of legal references on issues related to conservation and development of traditional production system and traditional processing of animal products are a sensitive gap of the current legislation.

The Albanian legislation does not treat issues relevant to Genetic Resources and Traditional Knowledge, Access and Benefit – Sharing, Trademarks and Patent for traditional livestock products ect… that are conditioned by the accession of Albania to the CBD and Nagoya Protocoll.

The handling of legislative issues related to: Livestock Keepers’ Rights or Farmers’ Rights, Contractual Agreements: Contracts – Transferring an Existing Right to an other Person, Intellectual Property Rights, referring to different other countries experiences and to the Albanian customary law, must be done by respecting at the same time the

Constitutional Law on property and by creating the necessary legal ground for the development of contractual relations that arise in the context of activities for conservation and sustainable use of FAnGR.

The treatment of issues related to Animal Welfare, as integral part of the "Veterinary Service" Act is a good and effective choice. In order to develop its compliance with International and EU Law, it is necessary to address, in the form of special provisions, issues related to: Welfare of animals used for experimental purposes, Animal welfare at slaughter, Animal welfare during transportation, Animals kept in zoos, circuses or pet shops and Abandoned and lost animals. The development of bylaw framework to define and establish the institutions responsible for the implementation of the Animal Welfare legislation, regulation for their operation and necessarie tools and infrastructure in local and national level, is necessary.

Support for developing and increasing the capacities of institutions responsible for Up-date of National Strategy, national and local policies and for implementation of National Action Plan for FAnGR, is necessary. The legal framework that regulates activities, rights and duties of the National Coordinator of FAnGR, National Advisory Committee, National Focal Point, National Agency for FAnGR, should reflect principles and recommendations given by FAO Guidelines. They should be adapted to the Albanian conditions.

In order to realizer the awareness campange and raising up stakeholders awareness toward the important value of conservation and sustainable use of AnGR, the current legislation should predict binding and supporting demands for public institutions, civil society and Farmers` organizations, operating in this field.

In the framework of the scientific research reform, it is necessary to review legislative and institutional solutions related to scientific research needs in the field of identification, characterization, conservation, development and use of FAnGR, in general, and native / authochthnous / traditional / local animal breeds, in particular.

Issues of international cooperation, regional and crossborder are not treated explicitly by the current legislation. Their treatment as a liability in accordance with the strategic priorities of the Global Plan of Action for Animal Genetic Resources, should take into account also the liability for legislative developments in the context of the efforts that Albania is making to be part of the EU.

The implementation of the National Action Plan for FAnGR requires that, in addition to legal provisions providing use of public funds for the purposes of this Plan, the “Annual Public State Budget” Act should contain provisions that provide specific items for them.

The current legislation has no specific provisions for penalties in case of acts or omissions that cause damage in animal genetic resources for food and agriculture. Especially, in terms of Albania drafting penalties for such cases is necessary.

**Recommandations**

Middle-term development of the Albanian legislation relevant to Animal Genetic Resources for Food and Argiculture should aim to:

a. Completion of the legislative framework in accordance with the obligations deriving from the Inetrnational Conventions and Agreements that Albania has ratified.
b. Approximation of the national legislation with International and EU law.

The legislation should be developed as a unique corpus and it shall reflect the:

(i) current legislative accomplishments;
(ii) complex nature of biological diversity;
(iii) agrobiodiversity trend of development and its concomitant effects on the conservation and effective use of the environment;
(iv) geo-climatic characteristics and features of different regions of Albania and the specificities of their economic development;
(v) social, cultural, demographic and traditional conditions, that shall be the background while implementing conservation and sustainable use of FAnGR programs.

On regard of the middle-term developments of the legal framework relevant for conservation, management and sustainable economic use of animal genetic resources for food and agriculture, two options can be followed:
*First option*: Review and completion of “Livestock Breeding” Act no. 9426 dated 20.01.2008 and relevant secondary legislation.
*Second option*: Drafting and approval of a new Act "Preservation and Use of Farm Animal Biodiversity" and the legal framework necessary for its implementation.

The purpose of the "Preservation and Use of Farm Animal Biodiversity" Act should be: conservation, administration, development and use of animal genetic resources for food and agriculture. It should create the necessary legal ground for the implementation of the National Strategy and National Action Plan for FAnGR. This Law should be drafted as a primary legislative document. It should reflect all requirements, conditions, needs, responsible institutions for designing and implementing programs for FAnGR, dependencies and interdependencies between them and funding sources. The issues faced by this legislation should aim at the highest level of approximation with the EU legislation and with the requirments of the international legal framework. Some of them

can be ranked as follows:

1. Explanatory provisions for the fundamental concepts used in this Law such as:
   (i) farm animal breed, exotic breed, indigenous, traditional, native, authoctonous, transboundary breed;
   (ii) *in-situ*, *ex-situ* conservation method,
   (iii) conservation programs, gene bank, cryconservation, breed improvement, breed standard,
   (iv) breeder organization, conservation organization,
   (v) herd book, genealogic book, red book,
   (vi) risk status, endangered breed, breed at risk,
   (vii) population size, effective number, genetic distance, genetic material, heterozygosity, homozygosity,
   (viii) traditional technology of rearing, ect.
2. Provisions regarding FAnGR biodiversity. Among them can be listed:
   (i) Responsible institutions for identification, characterization and monitoring of animal genetic resources for Food and Agriculture,
   (ii) National Information system for monitoring farm animals biodiversity, Responsible institutions for the administration of the national data-base, Cooperation in international farm animal genetic resources databases, National genealogic book, Red book, Herd book, Register of breeds with a zootechnical assessment,
   (iii) Recognition and registration of new breeds or lines of farm animals- Zootechnical characterization, Molecular genetic characterization, Measurement and assessment of production and other traits
   (iv) Estimation of degree of breed endargement and state of use of a breed
   (v) Education and training in the field of conservation of farm animal genetic resources
   (vi) Raising public awareness and early warning on the state and significance of conservation of farm animal genetic resources
3. Provisions for evaluation and monitoring of genetic variability, such as:
   (i) Criteria for the estimation of genetic variability within breeds.
   (ii) Monitoring and assessment of genetic variability for individual breeds.
   (iii) Monitoring and assessment of inbreeding and degree of relationship for individual breeds.

(iv) Calculation and determination of genetic reserves by types of genetic material.

(v) Ensuring and maintenance of genetic reserves by species, breeds and lines of farm animals.

(vi) Breeding programmes for commercial breeds, exotic and native breeds, small populations.

4. Provisions for drafting and implementing conservation programs for animal breeds at riskt ofextinction

(i) *In-situ* conservation

(ii) *Ex-situ* conservation

(iii) National gene bank – cryo bank, *ex-situ in vivo* bank

(iv) Rule of Subsidies

5. Provisions relevant to CBD and Nagoya Protocoll (ABS):

(i) Genetic Resources Access and benefit-sharing,

(ii) Traditional knowledge Access andbenefit – sharing,Trademarks and Patent for traditional livestock products,

(iii) Prior informed consent by indigenous and local communities

(iv) Monitoring and enforcement

**6.** Provisions relevant to Livestock Keepers' Rights or Farmers' Rights:

(i) Property Rights - Ownership of the Individual Animal

(ii) Transferring an Existing Right to an other Person

(iii) Intellectual Property Rights

7. Provisions for institutional, policies and capacity –building, such as:

(i) Establish the National Network, National coordinator and National Focal Point for animal genetic resources for food and agriculture

(ii) Establish the National Agency for Farm managment of FanGR

(iii) Support research activities

8. Provisions for International cooperation in the field of farm animal genetic resources.

9. Provisions for financial sources.

Secondary and subordinary legal framework necessary for the implementation of the "Preservation and Use of Farm Animal Biodiversity" Act it is recommended to take place in several forms:

a. Council of Ministers Decision,

b. Minister of Agriculture Orders,

c. Regulation for public and/or no public institutions,

d. Guidelines.

Among the issues to be addressed by this level of legislation, can be ranked:

(i) Council of Ministers Decision:

- updated approval of the National strategic priorities and National Action Plan
- building of National Agency for FAnGR
- establish of National Network for Animal genetic Resources for Food and Agriculture
- criteria and subsidy methods for farm animals breed at risk of extinction
- establishment and operation of a national network of rescues station
- establishment and operation of the National Gene Bank for FAnGR

(ii) Orders and regulation of the Minister of Agriculture, Rural Development and Water Administration:

- Order for approving the composition and duties of the National Advisory Committee
- Order for approving the composition and duties of the National Animal Production Committee
- Order for approving the composition and duties of State Commission for monitoring natural/human emergency situations
- Order for approving the standard form for:
  - Material Acquisitions Agreement (MAA)
  - Material Transfer Agreement (MTA)
- Regulation for the establishment of breeds association and conservation association, membership, governing bodies, duties, rights, reponsabilities and fields of operation
- Work Regulation for:
  - National Network of FAnGR,
  - Advisory National Committee,
  - National Focal Point,
  - National Animal Production Committee,
  - State Commission for monitoring natural/human emergency situations

- Regulation for the administration of the National data-base of Animal genetic resources for Food and Agriculture
- Regulation for the operation of the National Red book and National genealogic book
- Regulation for performance record control
- Regulation for FAnGR census
- Regulation for Benefit-sharing on mutually agreed terms
- Guideline fore up-date of National Strategic priorities and National Action Plan
- Guideline for identification, characterization, monitoring of the extinction trend and census
- Guideline for the implementation of *In-situ* conservation programs
- Guideline for establish and management of Cyroconservation gene bank.

For a better approximation with EU and international legislation relevant to animal welfare, it is recommended to amend Law no. 10465, 29/09/2011 "On the Veterinary Service in the Republic of Albania". These amendments should reflect issues related to:

- Welfare of animals used for experimental purposes,
- Animal welfare at slaughter,
- Animal welfare during transportation,
- Animals are kept in zoos, circuses or pet shops and
- Abandoned and lost animals.

The secondary and subordinary legal framework necessary for the implementation of these amendments should treat issues related to:

- Establishment and operation of public and private institutions responsible for programs implementation, establishment of the necessary infrastructure and monitoring the fulfillment of obligations arising from law requirements.
- Establishment and operation of infrastructures and other tools at regional and local level.
- Regulation and guidelines for different institutions operating in FAnGR field.

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