

Eco Bio Cultural Protocols for Preservation of Endangered Agrobiodiversity Areas from the Adjacent Regions of Danube and Danube Delta

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Abstract: Danube Strategy involves creating synergies between different sectors (tourism, environmental protection, agriculture and forestry), promoting solutions and contributing to the prosperity of social, economic and cultural sustainable development. It requires multi-interdisciplinary problem solving biodiversity conservation and environmental protection. Agrobiodiversity conservation and means must be assessed according to international risk categories, taking into account the culture, traditions and local lifestyle. Fundamental aspects of the protocols will be to assess species and breeds endangered and their influence on specific ecosystems of the Danube and Danube Delta to promote local tradition and cultural heritage. Our studies will have to reveal new interdependencies between socio-economic phenomena that occur in the context of

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regional sustainable development and identify viable solutions to ensure the conservation of agro-biodiversity as part of the natural and cultural heritage of the Danube Delta . Need of cooperation between Danube countries and between local authorities and research entities to conserve natural and cultural heritage that can be achieved based on eco-bio-diplomacy. Need of cooperation between Danube countries and between local authorities and research entities to conserve natural and cultural heritage that can be achieved based on eco-bio-diplomacy.

Keywords: eco-bio-culture-protocol; conservation; agro-biodiversity

1. Introduction

The objectives and expected outcomes are coherent with the EU Strategy for the Danube Region (EUSDR) and National Strategy in Cultural Sector 2014-2020, by want creating synergies between different sectors (tourism, environmental protection, agriculture and forestry), promoting sustainable development solutions and thus contributing to social, economical and cultural prosperity. The Convention Concerning the Protection of World Cultural and Natural Heritage were created based the observation that "some of the cultural and natural heritage assets present exceptional importance, which requires their preservation as part of world heritage of all mankind". Requirements humanity beyond Earth's natural resources and environmental deterioration in the global food production are serious phenomena profound effects on society as a whole. Our global civilization today is an impossible economic direction supported by the environment, a direction that guides us toward economic decline and eventual collapse. The problem of animal genetic resources was discussed extensively by the international community with the adoption of the first Global Action Plan, which includes 23 priority strategies, aimed at combating erosion of animal genetic diversity and sustainable use of resources zoo technical genetic. He fired a warning since the past six years have gone 62 livestock animal species, one species each month, and if it continues at this rate it will reach a serious situation worldwide. Our country has the largest biogeographically diversity of European countries, including 5 of the 11 existing European biogeographically regions. Europe grows more intense economic and human benefits this brings, risks, risk is increasingly becoming a continent artificial nature to lose and everything to gain by her man has. Europe strives to maintain current nature in all its diversity and to promote economic activities that do not harm biodiversity. We could say that they try to reconcile two needs of the people, both vital, namely: the need to earn income and the need to keep nature alive. Currently practicing "environmental economy" idea accepted by Lester Brown in his book "Eco-Economy" which refers to an economy that can grow in the long term without affecting its support system (environment), the eco-economic approach to phenomena, especially social sustainability is the main premise of eco-economy being directly related to ecosystems and biodiversity, where more often discussed the need to ensure fairness between generations, and within them. Lester R. Brown stated that for the earth on to future generations a cleaner with an

appropriate living environment and development to be sustainable, it must first be economically efficient, equitable socially, environmentally harmless aspects missing in the current economic life, which gives very little respect for the man and his natural environment. Natural ecosystems and anthropogenic semi and socio-economic system elements include providing material, energy and information, which can be transformed by physical, biological and social resources to create a flow from one environment to another. Today there is an ecological approach that is targeted on various links on multilevel, including the link between people and their environment, and the numerous factors that impact health and nutrition. More and more rural areas have become increasingly supported more by factors outside agriculture by diversifying the socio-economic structure. However, agriculture remains a key engine of the rural economy in much of the EU. Biodiversity closely with ecosystem is defined as the multitude of plants, animals and micro-organisms at the genetic, species and ecosystem. Agricultural biodiversity is particularly important for food production and food security and livelihoods, the result of interactions between the environment, genetic resources, management systems and practices used. Biodiversity is in turn influenced by climate change, but also biodiversity can reduce the effects of climate change on population and ecosystems. Impact of climate change on vulnerable systems observed (mountain ecosystems, polar) showed greater vulnerability due to temperature increase. The IPCC report shows that about 20-30% of plant and animal species assessed so far are at increased risk of extinction if global average temperature increase of more than 1.5-2.5 ° C above from 1980 to 1999. There are recent concerns regarding the loss of biodiversity due to the expansion of agricultural land irrigated lands irrigated land less productive and homogenization of farming systems. In this regard, there are two major concerns, namely: increasing the genetic vulnerability and genetic erosion. Genetic vulnerability occurs when a widely used variety or species are sensitive to changing climatic conditions. Genetic erosion is the loss of genetic resources by the disappearance of a species of animal or plant variety.

The document states that "international task incumbent on the entire community to participate in the protection of cultural and natural heritage of outstanding universal value, by supporting collective without substituting state action." It creates a special notion of natural and cultural treasures possessing world with exceptional value for all mankind, subject to a particular legal regime of protection (national and international) to conserve and its transmission to future generations. The first and most important obligation of States Parties is to ensure the identification, protection, conservation, presentation and transmission to future generations the value of this property. In order to achieve this, maximum available resources must be allocated, possibly through international assistance and cooperation. Each State Party is keen to adopt a general strategy on these natural objects to create protection services and value them, develop related research , to take appropriate conservation measures , thirdly they are committed to provide

competition states require , and do not directly take any action likely to harm directly or indirectly assets located in other states.

2. Material and Methods

In developing the work methods used is to systematically study the cross pursuing issues, phenomena and processes at a time and longitudinal methods. As a method for determining the regional biodiversity systematic study has used cross methods, aiming issues, phenomena and processes at a time and longitudinal methods, seeking processes, while issues. After the number of units taken so we used both statistical methods and methods casuistry (case study, monograph, etc.). Methods of data collection was mainly quantitative, it is an objective method, deductive and generalized. These quantitative approaches were made in the methods concerned. Were used as sequential methods, where each method (quantitative or qualitative) research has been addressed in the same turn, and theoretical and methodological triangulation method for determining the specific indicators of biodiversity.

The Bio-cultural Protocol follows the rule of law and seeks to protect and conserve the environment by offering sustainable solutions to decision makers and administrators in order to mitigate the negative impact of human activities and local livestock breeds on forest ecosystem biodiversity. In this direction, ecosystem approach principles will be implemented, such as: reducing market distortions that adversely affect biological diversity; align incentives to promote biodiversity conservation and sustainable use; internalise costs and benefits in the given ecosystem to the extent feasible. Highlight new interdependencies between socio-economic phenomena that occur in the context of regional sustainable development and identify viable solutions to insure the conservation of agro- biodiversity as part of natural and cultural heritage of the Danube Delta. The target groups indirectly addressed are the NGO's, media, tourists and general public that receive and perceive differently (often contradictory) the impact of human activities and livestock on local biodiversity.

3. Results and Discussions

Costs of biodiversity loss and degradation are difficult to determine, but studies conducted so far in the world shows that they are substantial and growing. The first project report on economic valuation of ecosystems and biodiversity internationally and published in 2008 estimated that the annual loss of ecosystem services is equivalent to 50 billion and, by 2050, cumulative losses in terms of welfare will add up to 7% of GDP. Although one cannot establish a direct value of biodiversity, economic value of ecosystem goods and services was estimated at 16-54 trillion USD / year. Values were calculated taking into account ecosystem services: food

production, raw materials, climate and atmospheric gases control circuit nutrients, water, erosion control, soil formation, etc.

Implementing the ecosystem approach and good practice guidelines developed within the Bio-cultural Protocol will provide sustainable practices for agriculture and tourism that will reduce the impact of human related activities on local biodiversity. The Bio-Cultural Protocol will also help in the local communities to increase their financial income by identifying and promoting alternative economic activities and help conserve and revitalize local natural and cultural heritage. These goals will be achieved by educational activities, social dialog and environmental/cultural protection measures. The evaluation of the socio-cultural, economic and ecological synergies in the context of the interactions between human – animals/livestock – environment, will be achieved by: recognition of risk categories; developing monitoring strategies for the study areas and applying bio-cultural protocols; formulating good practice guidelines based on the Ecosystem Approach; meeting with local authorities for establish the bio-cultural protocols, workshop – training to disseminate the importance of preserving endangered species conducted in schools with the support of local authorities.

The contribution of animal genetic diversity in agriculture, economic development and resources management is a major consideration for its conservation. At the same time, being an integral component in many social and cultural traditions, diversity contributes to individual and community identity. A conservation strategy is more than just a technical program. It must contain an awareness building component and a planning process that promote wide involvement and commitment of all stakeholders. Within countries, the building of partnerships among government agencies, local authorities, farmers, researchers, business interests and nongovernmental organizations is critical to a successful conservation strategy. Farmers, who own and utilize livestock, must be involved in the process as their decisions influence the direction of animal production and the future of a given local breed. Ensuring profitability of production is the most important goal for farmers; therefore, conservation activities must consider the need of farmers to generate income. The following objectives may underpin an in situ conservation program: to conserve the processes of evolution and adaptation of animal populations to their environments; to conserve diversity at all levels - ecosystem, species and within species (breeds and genes); to integrate farmers into a national AnGR system. It is important the conserve ecosystem services which are critical to the functioning of the earth's life-support system (i.e., maintaining soil-forming processes, reducing chemical pollution, restricting spread of animal and plant diseases, etc) and to improve the livelihood of resource-poor farmers through economic and social development (i.e., combining in-situ conservation with development of local infrastructure, or increasing access by farmers to locally-relevant animal and plant (forage) germ plasm).

The most cost-effective approach to in situ conservation is to maintain locally adapted breeds within commercial or subsistence production systems. Specific traits, often expressed in indigenous breeds, including hardiness, fitness, longevity, low feed requirements, resistance to diseases and relatively high reproduction performance can be extremely beneficial. Moreover, lower yields from locally adapted breeds can be compensated by higher lifetime production, as well as from their lower total maintenance costs.

Locally adapted breeds can also be used in crossbreeding programs especially when their prolificacy and maternal abilities are high. The ability of locally adapted breeds to perform in low-input stressful production systems provides the basis for sustainable agriculture. This is true especially in regions of the world where there is routine exposure to environmental stressors such as disease and extreme climatic variation. Most local livestock breeds in rural environments are products of a community of breeders. This community of breeders lives in the same area, keeps and breeds animals for a specific purpose and exchanges animals mostly among themselves. The manner by which people utilize and breed their livestock is determined by their cultural norms. Some Traditional Practices are influenced by the following criteria: if livestock is considered communal or private property; ritual and social aspects; keeping a mix of breeds; resistance to diseases; resistance to environmental conditions.

4. Conclusions

It is important to development the research collaboration aims to create principles and methods in community-based participatory research and extension, and principles and methods in community genetic resources conservation and development the cooperation between Local Administration and Academic Institutions will give the logistic and scientific support to create a Local Bank for Genetic Material.

The final result of this work must be to develop a regional system in which the farmers, scientists work together for the community benefit based on a sustainable agriculture and protection of ecosystems for the future generations.

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