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SUSTAINABLE DEVELOPMENT AND THE BETTER WAY TO PROMOTE EDUCATION FOR REGENERATIVE AGRICULTURE

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Abstract

In the last 25 years, sustainable development seems to be the solution for the world's problems. Reality makes to have more pollution, biodiversity loss and clear impact of climate change. Change of climate is the attribute of human activities and is one of the most critical processes that affect our earth. For this reason, it is necessary to promote education and the aim of sustainability gaining more and more attention in environmental, social, and economic programs and activities. We need to start with three questions about what should be sustainable: agriculture, households, cities, whole nations, and the world economy? Is generally know that sustainable agriculture helps the environment and takes many forms (organic, holistic, biodynamic agriculture etc.). But specialist know how important is to realize ways for different agricultural practices that can influence the environment in positive or negative matter. In view to this regenerative or sustainable agriculture need to find a good balance between the need for food production and the preservation of the ecological system. For that reason, we need to implement and to educate about the circular economy which is one of the new concepts of sustainable development and economic activities. In this concept, resource use, waste production, emissions and energy waste are decreased by reducing, and closing energy and material cycles.

Keywords: sustainable, agriculture, regenerative, circular, economy

1. INTRODUCTION

In the last two decades, sustainable development seems to be the solution for the world's problems. Reality makes to have more pollution, biodiversity loss and clear impact of climate change.
Maintaining biodiversity is essential to the health of the plant during its growth cycle**.** Biodiversity loss is a result of climate change and agriculture, enlargement of urban development and degradation such as spreading of invasive plant species, fire management and other negative land management practice.
Starting from the fact that climate change is an attribute for human activities we can say that is one of the most critical problems that affect our planet. Reality makes to have more pollution, biodiversity loss and clear impact of climate change. And their effect on ecosystems is obvious. For this reason, it is necessary to promote education for sustainable development, sustainable agriculture, sustainable agroforestry and the aim of sustainability gaining more and more attention in environmental, social and economic programs and activities.
Objectives.
We need to start with three questions about *what should be sustainable*: agriculture, households, cities, whole nations, and the world economy? Is generally know that sustainable agriculture helps the environment and takes many forms: organic form, low-input, holistic agriculture and biodynamic agriculture.
But specialist know how important is to realize ways for different agricultural practices that can influence the environment in positive or negative matter. Regenerative and sustainable agriculture need to find a good balance between the need for food production and the preservation of the ecological system from the environment point of view.
For that reason, we need to develop and start to educate about the *circular economy* as one of the required concepts of sustainable economic activity.
The circular economy is a new European political concept that seeks to reform our economy in a structural way by moving away from the "extraction, manufacturing, throw-out" model and moving to a cyclical model that is more suited to living systems. The basic principle of the circular economy is "thinking in systems", as the shift from a linear model of our economy to a circular model can only be achieved by cooperating and connecting business and production models. The principles of the circular economy are to reduce the resource use and waste production, emissions, energy waste, material cycles. Products must be obtained in a manner that after use the raw materials can be extracted without influence the quality or can be returned in the biological cycle without harmful effects on humans and environment.
Promoting the sustainability for food value chains can take advantage hundreds of millions of poor households in developing countries. Many farmers and agribusinesses, governments or civil society need to cooperate and promote sustainable and efficient food systems. Need better integrate the small farmers into value chains and agribusiness and to improve their access to all markets. In all countries the policies must to militate for sustainable agribusiness and food value chains must have a decisive role. In all countries the national or global regulations for sustainability need to have important impacts for agribusinesses. At the same time these policies need to have the potential to make positive change and to create major adjustments to existing business models.
Considering the present status of the biotechnology research in Romania and the threats that affect it, the following priority activities need to be focuses on the

development and application of new technologies to create better plants.

The biotechnologies methods afford researchers to find the genes and map them, to find their functions, select for specific genes in genetic resources and breeding, transfer the genes for specific features into plants where they are needed. Basically, how human society can continue to feed itself without destroying the environment, contaminating the food that comes from the natural landscape, and make the surrounding communities unactable? Remember!

We still must eat every day, to make sure that there is enough food for the additional 6 billion people who must occupy the planet in the next century. The shift to a sustainable economy, underpinned by bio-based principles, requires a rethink, and change in the way we live today. The circular economy seeks to help the products and raw materials from which they are built to maintain their value for as long as possible so that continuous extraction of raw materials can be avoided for the creation of new products, this would lead to the depletion of the natural resources that the generations of the future will need, that is, the children of our children.

2. MATERIALS AND METHODS

Sustainability is based on the idea that human activities are dependent on the surrounding environment and resources. Sustainable development is the need to integrate economic and environmental objectives.

The research methods aim is to conduct producers and consumers to improve the quality of life, the more generous definition of good and happiness including factors related to our environment and communities, as well as economic factors. The problems of the surrounding, economic and social environment are intertwined. Address them in an integrated way to achieve sustainable harmony-based solutions. Steps needed:

- be concerned about the needs of future generations just like those of current generations, and look to avoid the problems of the future, acting now.
- take an account of the surrounding authorized environment and its ability to support human activity.
- rethink the increase in the level of life, based on health and happiness.
- treat the economy, society, and the environment as three problems united and assume that a thriving economy will automatically lead to a society and a safe environment; focus on improving the state of things in the short term.
- treat the surrounding environment as a luxury to be protected if we can afford to focus on individual rights.

The concern here is to strengthen the European agricultural model as part of an increasingly market-oriented policy, to highlight at the same time three important functions of agriculture (which also have to do with the non-agricultural rural economy):

- economic
- spatial planning and
- environmental (economic, landscape and ecological)

We need to implement three important functions: *Economic function* refers to the traditional role of agriculture in producing food for consumers and raw materials for industry and at the same time contributing to economic growth, job creation and improving the trade balance.

The spatial planning function (landscape-rural) is based on diversification, with agriculture being complemented by other industrial, service, commercial or tourism activities.

The environmental (ecological) function refers to the role of preserving the countryside, protecting biodiversity, and protecting the landscape of sustainable agriculture, which promotes environmentally friendly farming practices. Starting from the Romanian rural realities, our previous research has highlighted the need for a policy of development (support) of disadvantaged rural areas.

Some principles pursued in promoting of education for sustainable development in mountain area:

1. Maintenance of human health and safety in the mountain area; maintenance of animal health.
2. Provide Mountain farmers with incomes that guarantee the stability of households.
3. Maintaining viable and stable rural-mountain communities provide appropriate services and the creation of an attractive rural society.
4. Conservation of natural resources, soil, ap, air, biological diversity, and productivity of these natural resources.
5. Encourage the organization and operation of viable mountain farms and promote sustainable development through the agricultural profession.
6. Development of sustainable development policy in various sectors of agricultural and forestry activity, in the framework of partnership and contractual policies with farmers, local authorities, foundations and professional associations.
7. Meet the requirements of local upland communities with food, industrial products in a sustainable manner and ensure energy needs.
8. Implementation of programs to support areas lagging and to close the urban and rural divide.
9. Measures to strengthen the mountainous rural economy, increase the income of the population and combat poverty.

The application of rural development measures beside regenerative agriculture through investment in agricultural holdings. The Community shall provide support for investment in agricultural holdings.

The aim of modernizing investment; agricultural equipment and systems to promote income as well as the living, working and production conditions of farmers. Investments shall aim at one or more of the following objectives: reduction of production costs; improving the quality of production; preservation and improvement of the environment; compliance with hygiene and habitat conditions for animals; encouraging diversification of agricultural activities. Better ways to promote the education for sustainability and regenerative agriculture include putting human resources to good use and

supporting the transfer of agricultural holdings from one generation to another.

Training measures have been equally integrated into the range of other actions, with particular emphasis on the promotion of quality products and environmentally friendly production methods. They shall be addressed to all persons engaged in agricultural activities and in their conversion. Training measures are also provided for the preparation of foresters, so that those involved in forestry activities to improve the economic, environmental, and social functions of forests benefit.

The adaptation of production to market developments, the search for new market outlets and the added value of agricultural products are also contributing to strengthening the competitiveness of the sector.

The future lies in the circular economy, whose basic principle is to re-introduce into the production cycle all the mineral resources originally used – elements resulting from the processing of raw materials already used, by-products or recycled.

5. CONCLUSIONS

The general objective is to develop competitive regenerative agriculture based on knowledge and private initiative, capable of long-term uniform development, ensuring the protection of the natural, cultural, and historical heritage of mountainous rural areas and the growth of employment, Economic and social cohesion according to U.S. standards at national, regional, and local level. in the conclusion, the necessary steps are:

1. Support for the organization of arts schools and mountain agriculture -based trades.
2. Development of textbooks, brochures, leaflets, and guides needed for education and training for agricultural producers, processors, in the field of regenerative agriculture.
3. Organization within the framework of the "Center for training and Innovation for Development in the Carpathians" of vocational training programs for mountain farmers, in accordance with the national Plan for Agriculture and Rural Development.
4. Organization of demonstration plants, in mountain schools and in households, with crops adapted to soil and climatic conditions. Establishment of craft workshops.
5. Support for the system for managing and implementing the Structural Funds.
6. Support for information and promotion programs, organization of training and exchange of experience in regenerative agriculture.
7. Organize events to enhance cultural and historical heritage.

Action is needed to support the "accelerated" adaptation of farmers, processors, and rural communities to climate change by improving sustainable water management and soil protection. This will also be supported by knowledge transfer, stimulating innovation, and adapting research results to the real needs of the sector. Knowledge is needed about the modernization of the farm and the viability of agricultural businesses, forest management, adaptation to climate change, including adaptation of innovative technology in European and international networks to Romanian conditions. Processors could benefit greatly from applied research for new technological processes, efficiency of production, consumer trends and market testing, etc.

The improvement of basic skills and knowledge among farmers and forest holders and food industry workers (in terms of management, marketing, processing, food safety and hygiene, etc.) and the promotion of research and innovation results can be achieved through information measures, training, and acquisition of knowledge.

Investments to modernize farm buildings, modernize technical equipment and machinery, improve the quality of fixed assets by increasing the overall performance of farms, such as modernization of farm buildings, modernization of technical equipment and machinery, improvement of the quality of productive assets and internal access, facilitate access to agricultural and forestry holdings to improve cost-efficiency and increase labor productivity. Investments in the development and modernization of capacity for processing and marketing agricultural products, which comply with community standards, can be promoted. These include modern technologies and facilities to increase the efficiency and productivity of businesses, the development of innovative food products and local brands.

Large areas of agricultural land are affected by natural or other specific constraints, which manifest themselves because of climatic conditions, specific conditions of less favorable land and soil. Therefore, agricultural productivity is limited, and these areas are threatened by abandonment, which can affect both biodiversity and the viability of these areas.

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