

THE "ONE HEALTH" CONCEPT IN THE FIELD OF AGRICULTURE

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REVIEW

Abstract

The "ONE HEALTH" concept is defined as "a collaborative, multisectorial and transdisciplinary approach, acting at local, regional, national and global levels, to achieve optimal health and well-being outcomes, while recognizing the interconnections between people, animals, plants and their shared environment" (OHC, 2021). If at the beginning of the 20th century the "ONE HEALTH" concept referred only to human health, later it became more inclusive, including the health of plants, animals, ecosystems in general. The One Health concept is rooted in understanding the interdependence of human and natural systems and promoting interdisciplinary collaboration. Some of the global issues One Health addresses include environmental contamination, habitat use conflicts, biodiversity loss, emerging infectious diseases, antimicrobial resistance, and degradation of ecosystem function. In addition, social determinants of health (eg SES, education, neighborhood and built environment, social and community context) play a critical role in health, and therefore there is a strong social and environmental justice aspect to one health." (Griffith, 2020)

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INTRODUCTION

Agriculture plays an important role in Romania, relative to the size of the rural population and the degree of employment. Approximately 45.7% of the population in Romania lives in rural areas, compared to approximately 23.6% in the EU member states. About 30% of the population is employed in agriculture, compared to about 2% in the old Member States (EU-19) and 3-14% in the new Member States (EU-8). There are major differences between rural and urban areas, the former being marked by a significantly higher level of poverty and a correspondingly lower standard of living. The development of agriculture and the provision of public goods in rural areas is therefore essential for the European integration of Romania and for the fulfillment of social cohesion objectives. Compared to other EU countries, Romania's agricultural sector has a relatively high share of gross value added (GVA), but has lagged behind in terms of labor productivity.

DISCUSSIONS

Sustainable development is the result of the interpenetration of economic, social, cultural and spiritual elements, which constitutes a complex process of transformation of material and spiritual life conditions, while the eco-economy is delimited by respecting ecosystems and socio-economic dimensions, pursuing the sustainable returns of resources in a relatively constant equilibrium. In the context of the Eco-Bio-Economy, sustainable development based on the ONE HEALTH concept takes on new connotations.

The risk of imbalances at the level of economic-ecological and biological relations is a major one not only at the global level, but also at the national level. The fact that Romania has joined the path to be followed by all the states of the world, in order to avoid the deterioration of the support of life, is nothing more than an awareness of the disastrous effects that an irrationality in the management of natural resources and the effects generated by human action can generate. In this sense, a ONE HEALTH strategy is taking shape, health being

recognized as a prerequisite, result and indicator of sustainable development. In addressing the issue of developing a vision for food security and safety at the horizon of 2038, it went in parallel with the need for sustainable socio-economic development on the one hand, and the need for the development of the agri-food sector and the rural area, on the other hand.

The 17 Sustainable Development Goals encompass many aspects of One Health, but will not be met if the health of people, animals, plants and ecosystems remains compartmentalized, and if collaborations are not implemented. The management of One Health essentially aims to promote a paradigm shift for a desectorised and more integrated approach to health.

In this sense, we believe that for Romania, the implementation of One Health management in agricultural activity would coincide with some of the major objectives of sustainable development. The fact that the agricultural field is well represented at the level of Romania and that there is a trend in capitalizing on this field, we are only getting closer to achieving a One Health management. (Stoican M., 2020)

"ONE HEALTH" management in agriculture recognizes that the health of people, animals, plants, soil and ecosystems are closely interconnected, which requires the application of a coordinated, collaborative, multidisciplinary and intersectorial approach to identify potential or existing risks that occur at the interface between the system integrated "soil-plant-animal-man" and the ecosystems in which they live. Regardless of which of the many definitions of One Health are used, the common theme is collaboration between the sectors of agriculture, plant health, animal health and human well-being. The integrated bioeconomic concept in the context of "ONE HEALTH" in agriculture has become an approach and then a movement in order to improve the health and well-being of people, by preventing risks and mitigating the effects of crises that occur at the interface between soil-plant-animal and their different growing environments and development. The role of the ONE HEALTH concept consists in: promoting a multisectorial and intersectorial approach, promoting a "whole of society" approach to health risks, as a systemic change of perspective in risk management.

Plant, animal and human health is more of an approach than a new concept. It is rapidly

becoming an international movement based on cross-sector collaborations. Collaboration between sectors that have a direct or indirect impact on health involves specific management with the aim of optimizing resources and efforts, while respecting the autonomy of the different sectors.

In order to improve the effectiveness of the approach in the sense of those contained in the "ONE HEALTH" concept, it is necessary to find the optimal balance between the actors of the sector and the specialists of the agri-food sector, including those responsible for public health, plant health and animal health, ultimately leading to the involvement of practitioners of environmental and wildlife health, as well as social scientists and ecosystem development actors. The current ONE HEALTH movement is an unexpected positive development that has emerged in the wake of the unprecedented global response to the emergence of highly pathogenic avian influenza and swine fever, and not least the COVID 19 corona virus.

Since late 2005, there has been increasing interest in new international and cross-sectorial policy collaborations on serious global health risks. The ONE HEALTH approach, which views the integrated health of humanity as inseparable from the health of the planet as a whole, seeks to achieve a critical paradigm shift.

Indeed, as globalization continues, health will become increasingly relevant. "As emerging diseases and health priorities evolve into global and multisectorial issues, professionals in agriculture, the environment, plant health, animal health, and public health—from interventionists to lawyers, engineers, biologists, teachers, economists to researchers—they need to get out of their laboratories' and intervene in ensuring sustainable health at the national, European and even global level.

An important role regarding the "ONE HEALTH" concept at the level of Romania is the current lack of analysis of efforts to integrate human, animal and health at the local, national, regional or global level and the lack of comparative analysis from which lessons can emerge.

The scientific case for "ONE HEALTH" is supported by substantial research in the environmental, veterinary and medical sciences. Although there has been an increase in interest in global health in public health training programs around the world, appropriate

reflection is needed on how public health professionals are educated and the potential role of One Health in this process.

Changes can range from creating interdisciplinary programs for the "ONE HEALTH" CONCEPT for the purpose of training a specialist in creating career opportunities. The formation of "ONE HEALTH" leaders in agricultural organizations to finance agricultural research, training and specialist training, as well as building institutions with a major role in protecting the health of the environment, plants, animals and public health.

CONCLUSIONS

Introducing the bioeconomy concept in agriculture in the context of "ONE HEALTH", the agricultural sector is one of the main users of land in the country and in Europe and therefore contributes to the shaping of landscapes and the development of rural areas. It has various direct and indirect effects on the environment and depends, in turn, on the natural resources of the soil. Agricultural land plays an important role in land use patterns in the EU. Together, grasslands and cultivated land account for 39% of Europe's land area. The agricultural sector is a major user of natural resources and is in a complex relationship with the environment.

In this context the bioeconomy is a major field within the agricultural strategy that must allow the European Union (EU) to achieve smart growth, through the development of knowledge and innovation, sustainable, based on a greener economy, more efficient in resource management and more competitive; favorable to inclusion, aiming to strengthen employment, social and territorial cohesion. The bio-economy is that type of economy that produces and processes biological resources, from (agro) terrestrial and aquatic ecosystems, and includes agriculture, forestry, fishing, aquaculture, the food industry, the pulp and paper industry, as well as part of the chemical industry, biotechnological and energetic.

REFERENCES

- Bogdan A., 2010, Ecoeconomic and Bioeconomic Impact of Food Safety and Security in Perspective Increased Consumption of Food and Feed During 2030-2100, International Symposium: Risk factors for Environment and Food Safety, Oradea, Romania
- Stoican M., Şonea C. G., 2020, One Health management in sustainable beekeeping tourism, Ensuring economic-managerial viability for the sustainable development of the regional economy under the conditions of EU integration, Bălţi. Republic of Moldova, "Alecă Russo" State University of Balti
- Şonea C. G., Şonea A. C., Criste F. L., Popescu O., Socol C. T., 2020 One health concept, consequence of bio-economic and eco-economic management application in apiculture, The International Conference of the University Agronomic Sciences and Veterinary Medicine of Bucharest "AGRICULTURE FOR LIFE FOR AGRICULTURE", June 4-6, Bucharest, Romania
- Şonea C. G., Matiuti M., Şonea A. C., Mirea C. D., Dimon V., 2020, Bio-economic and Eco-economic Managerial Research on the Main Objectives of Romanian Aquaculture in the Context of the European Union, Journal of Environmental Protection and Ecology 21, No 3, 962–969, ISSN 1311-5065
- Şonea C. G., Isar P. A., Şonea A. C., Munteanu A., 2021, One health concept, the result of the application of bioeconomic and ethical management in the development of a business in the fisheries sector, 2nd International Conference, Global Ethics Key of Sustainability (GEKoS) held on May 14th, Bucharest, Romania (online conference)
- Şonea C. G., Porca M. M., Coţianu R. C., Stoican M., 2021, One health bioeconomic management of sustainable development in agriculture, Aius Publishing House, Craiova.