# THE IMPACT OF COVID-19 CRISIS ON THE SUSTAINABLE DEVELOPMENT IN THE RURAL AREA AT THE LEVEL OF GALAȚI COUNTY, ROMANIA

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### Abstract

This paper intends to address the impact of the COVID-19 crisis on the development of rural areas in Galati County, after the application of the state of emergency in Romania. The article is based on the interpretation of the change of certain economic indicators in rural areas and their impact on the population, economic environment, industry, and agriculture. Supplementary research has been conducted by interpreting the changes triggered by the COVID-19 crisis on the decisions of local and regional authorities to develop certain strategies and projects before and after the end of the present crisis. At the same time, it is analyzed that rural areas were perceived as providing a defense wall against this pandemic, motivating the population in urban areas to seek shelter in rural areas, thus contributing to the development of the economic environment. However, in reality, rural areas have been the hardest hit, unable to provide the infrastructure needed for such a human wave. In the context of those presented, the paper is an analysis of economic and social factors but also of how the COVID-19 crisis has influenced the current situation in rural areas of Galati County. To reach the result of this analysis, research methods were used based on reports, studies, papers and specialized publications both online and offline. As a main result of this paper we can mention the identification at regional level of changes in social, demographic and economic factors with considerable impact on the rural economy in the coming years. Thus, agriculture will feel a decline due to this pandemic, after 2022.

Key words: COVID-19, pandemic, sustainable development, rural area, Galati County

### **INTRODUCTION**

The year 2020 begun with the emergence of the COVID-19 pandemic that spread immediately in most countries of the world, causing numerous damages and a huge negative impact on the economies of the affected countries. This pandemic has motivated the entire community to find solutions and demonstrate that there are a number of ways that action can limit the economic impact of COVID-19 on the development of the world economy. However, practice still shows us that economic indicators oscillate between changes with considerable impact both nationally and globally. The decisions at national level have greatly influenced the actions implemented in rural areas in Romania, so that the impact is unexpected.

COVID-19 has changed the dynamics of rural development. It has taken over potential implementation of interventions on food security, education, employment generation and poverty reduction [3].

Since it requires achieving a stable economic balance, which is negatively influenced by the disruptions caused by the COVID-19 pandemic, sustainable rural development is one of the most problematic and complex issues of the current situation.

Although in most countries of the world, the direct impact of the Covid epidemic19 was mainly on the urban environment, the economic impact spread immediately to rural areas as well. A large majority of people who are on the brink of poverty and hit by food insecurity, live in rural areas where they still remain vulnerable to the considerable impact of the pandemic even if there is a high degree of physical detoxification, isolation, food

production. This process can only lead to a result called economic contraction. Thus, we can mention that rural areas, especially in economically developing countries, are too illprepared to deal with the direct and indirect impact of the crisis that will follow the pandemic.

The follows left by the pandemic have emphasized the components that contrarily impact the prosperity of individuals in rural area. The connection between enthusiastic prosperity, access to education, parental contribution in children's life and the family's economic weakness is clear. Those who have lost all or part of their income due to the crisis or those who are socially assisted are also those who do not have access to education, although they say that education would mean survival and the only chance for children to get out of poverty.

# MATERIALS AND METHODS

To achieve the objective of the paper, specific research methods were used to analyze the social and economic development of Galati County during the pandemic. Also, we used a descriptive analysis based on measures of sustainable development in the rural areas identified in a series of reports, studies, works, statistics and publications Eurostat, INS - County Department of Statistics Galati and at the National Institute of Statistics of Romania. carried out in the fields: demography, employment, economic sector, specific statistics on agriculture.

The analyzed data were collected from specialized literature in the sustainable development and agricultural field. The framework included primary statistical analysis of the data, with the software Microsoft Excel serving as a tool for quantitative analysis. The data used in this analysis ranged from 2018 to 2021.

# **RESULTS AND DISCUSSIONS**

The pandemic caused by the new coronavirus has had a huge impact on the EU and even on the global economy and has had very serious socio-economic consequences. Economic activity at European level fell sharply: in the first half of the year, real GDP fell at doubledigit rates in both the euro area and the EU. Employment has also fallen more than ever, albeit less than might have been expected, thanks to massive policy support from Member States and the EU. GDP in some countries was hit much harder than in others, falling three times more in the hardest hit than in the fewest.

Such extreme and frequent changes make economic forecasts even more difficult than usual. First, it is clear that the future course of the pandemic will play a key role in determining the future path of economic growth. This is why the autumn forecast is largely based on technical assumptions and analyzes alternative scenarios for the evolution of the pandemic and its economic impact.

Second, the economic impact of the pandemic and future recovery prospects will be very different across the EU. Romania's economy will return after a decrease in production in the first half of the year due to the COVID crisis19.

Although the contraction in 2020 does not appear to be as severe as initially expected, given the latest developments in the pandemic, uncertainty remains high and actual production will not return to pre-crisis levels before the end of 2022.

Table 1. Main features of	of Romania forecast
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	Bn	Annual percentage change				
	ron					
		2018	2019	2020	2021	2022
GDP		4.5	4.2	-5.2	3.3	3.8
Private Consump	otion	7.7	5.5	-8.8	4.9	5.8
Public Consump	otion	3.3	6.0	5.9	-0.1	1.7
Exports and servi		5.3	4.0	-13.1	6.6	7.6
Imports and servi		8.6	6.5	-10.6	8.5	9.7
Employn	nent	0.1	0.0	-2.6	0.3	1.2
Unemplo rate (a)	yment	4.2	3.9	5.9	6.2	5.1
Trade (goods) (	balance b)	-7.5	-7.8	-8.8	-9.4	- 10.1

(a) as % of total labour force. (b) as a % of GDP Source: Own calculation on the basis of data from https://ec.europa.eu/info/business-economy-euro, [11]. The budget deficit will increase significantly, as the fiscal effort needed to deal with the crisis has added to the past fiscal recession (Table 1).

There are numerous researchers who have already insisted on the consequences brought by pandemics on the economy, especially on the product distribution systems [12, 5, 6, 14, 7]. Some of these support the idea that such sanitary crises were followed by economic growth as a direct consequence of the increases in consumption [9, 21], while others say that on the contrary, the effects are negative for the human activities [13, 8, 4], especially for agriculture [19] and [10].

Sustainable development of the rural area in Galati County is one of the most problematic and complex issues of the current situation, due to the fact that it involves achieving a stable economic balance, negatively influenced by the barriers created by the COVID-19 pandemic.

From this point of view, this pandemic has created new factors of economic denigration on the rural environment in Galati County. Confronting so far with a deficit in terms of the number of rural population, the year 2020 brought a decrease of approx. 1,400 people (Table 2). Considering the tendency of the urban population to withdraw to the rural area due to the fact that the safety in terms of the spread of the virus is much higher, here that the statistical data do not reflect this. The rural population was the most affected by this pandemic. this being unknown to the inhabitants of urban areas.

Years	2018	2019	2020
Urban	358,699	359,342	362,164
Rural	269,577	268,159	266,746
Total	628,276	627,501	628,910

Source: Own calculation on the basis of data from Tempo on line data base for 2020, NIS [15].

The values of poverty and social exclusion in Romania's rural areas are two times higher than in the cities. According to the statistical data analyzed in Romania, in the last ten years, it has been concluded that one in two inhabitants of Romania is exposed to a high risk of poverty.

The unemployment rate increased in the first half of 2020 but stabilised over the summer, due to policy measures limiting job losses. It is projected to reach almost 6% in 2020 and continue increasing somewhat in 2021 due to a delayed downturn reaction of the labour market. In 2022 unemployment is expected to decline again but stay above 5%. Nominal wages are projected to increase moderately over the forecast horizon after several years of double-digit growth [16].

At the level of Galati County, based on the studies carried out, the members of the farmers' households sum up total incomes below the poverty line.

This fact can only confirm the fact that the impact of the pandemic was felt especially on the rural population and that we are taking part in a phenomenon of economic decentralization.

This phenomenon of rural poverty is severe and the COVID-19 crisis may exacerbate it, making it possible for the rural impact to be permanent.

Technical unemployment or job loss (Table 3) in small rural businesses both during and after the emergency will have a negative impact, including a decrease in the income of families.

Table 3. Unemployed registered in January, Galati County

county	2018	2019	2020	2021
Total registered unemploye d	14,875	11,698	10,414	11,856

Source: Own calculation on the basis of data from Tempo on line data base for 2021, NIS [15].

Analyzing the business environment in rural areas before, during and after the pandemic, we can see that the data on the number of businesses in rural areas indicate that the business environment is in a continuous decline (Table 4).

Table 4. Struct	ine of con	ipames of	Galati Co	Junty
Structure of companies according to the number of employees	2017	2018	2019	2020
Micro (0-9 persons)	11,257	11,665	11,774	11,541
Small ( 10 – 49 persons )	1,066	1,045	1,023	923
Medium ( 50 – 249 persons )	181	187	180	164
Large (>250 persons)	37	35	38	36

Table 4. Structure of companies of Galati County

Source: Own calculation on the basis of data from www.galati.insse.ro, 2021 [15].

According to a recent European Commission study, compared to urban workers, people living in rural areas are at the highest risk of in-work poverty. The incidence of the real phenomenon of social exclusion during the pandemic has reached at least twice the national percentage of the share of children at risk of poverty in rural communities, which emphasizes the magnitude of the risk of declining access to children in rural areas. the rural food environment is considerable (Figure 1)

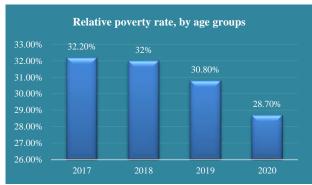


Fig. 1. Relative poverty rate, by age groups Source: Own calculation on the basis of data from Tempo on line data base for 2021, NIS.

From a social point of view, since the beginning of the pandemic, a number of approx. 800,000 Romanians, according to a SOCIOPOL survey conducted between March 18-23 [20]. About 50% of those surveyed said that the reason they returned to the country was fear of the new virus. Taking into account the fact that half come from rural areas, we can report a clear picture of the dynamics and increase of the level of poverty in rural areas. The lack of jobs in rural areas during the

entire period of emergency has only led to an increase in the number of unemployed. The possibility of reintegration into the labor market of Romanians returning to the country is small and their fiscal reserves cannot ensure the long-term survival of their families. The effects of this pandemic can be seen in rural areas and in the field of education. Along with the measures imposed by the authorities to close educational institutions and adopt the online training system, there have also been the negative effects of the education system suffering from the point of view of ICT infrastructure and teacher training in terms of using modern methods. teaching. Given the current situation, young people in rural areas are considered at high risk of dropping out of school, but this is especially true when they cannot participate in direct learning through courses taught in educational institutions during this period when they are closed. In this case there is a vulnerability because a large majority of those in rural areas do not have access to the Internet or IT equipment dedicated to online courses.

Table 5. The share of households that have access to	
the Internet at home, by area of residence	

		2017	2018	2019	2020
Internet access at home (%)	At the national level	68.6	72.4	75.7	78.2
	Urban area	77.5	81	82.5	84.8
	Rural area	56.9	61.5	66.7	69.7
Home computer access (%)	At the national level	65.6	70.1	73.2	75.7
	Urban area	75.9	80.2	86.1	88.4
	Rural area	51.9	56.2	59.3	62.5

Source: Own calculation on the basis of data from Tempo on line data base for 2021, NIS [15].

Thus, we can talk about increasing the dropout rate. The access of urban households to information and communication technology in 2020, according to Eurostat data, shows that approximately 80% of households in Romania had access to the Internet at home and 75% to the computer at home. (Table 5).

Indicators presented differ by area of residence, so that in rural areas the share of households with internet and computer access is much lower than in urban areas (by about 20 percentage points).

When we talk about the impact of the pandemic on rural areas, we automatically reach the impact on agriculture. It is by far the largest economic sector in developing countries with a considerable impact due to the very large number of workers in the field: 880.4 million people (representing 26.5% of the total employed population) is the sector on which The crisis economic generated by COVID-19 did not have an impact at the moment, but the measures imposed along the way brought chain effects in this field. The COVID-19 pandemic, still ongoing, significantly affects the sales of agricultural products by farmers. The main challenges they face are changing consumer patterns - at the consumer level and in marketing chains, changing the relationship between fresh produce - commodities, bottlenecks in farmers' markets and increasing online deliveries, syncope in the agricultural sector. -industrial, the closure of the economic agents from HORECA, but also of the schools, canteens, etc. All these challenges can have the effect, first of all, of the decrease in farmers' incomes accompanied by the decline of agricultural production [2]. The production at the level of Galati County experienced a decrease for certain types of vegetable crops even before the pandemic crisis, an impact that determined a decrease also for the animal production (Table 6). With this crisis, rural farms began to be directly affected due to the radical decrease in the number of workers caused by the measures imposed at national level.

For many small farms, the marketing of agricultural products has been a critical period. Since the beginning of the crisis, part of society has become aware of the need to support, in particular, small local farmers. Consumption from small nearby farms was promoted on social networks. Both online product sales and home deliveries have accelerated [17, 19]. Table 6. Vegetable and animal agricultural production in Galati County

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Crop /	Crop, tons						
livestock	Years						
production	2017	2017 2018 2019 2020					
Cereal	701,395	881,848	735,107	658,973			
grains							
Wheat and	186,493	179,704	179,518	178,643			
rye	100,475	179,704	179,510				
Corn grain	452,929	639,398	491,551	367,543			
Vegetables -	272,480	276,713	256,102	223,456			
total	272,400	270,715	230,102				
	Animal production						
Weight of	Tons of live weight						
live animals							
intended for							
slaughter	17,480	21,162	16,834	13,567			
for total							
consumption							
Milk	Thousands of hectoliters						
production -	687	593	598	687			
total							
Egg	Millions of pieces						
production	199	177	166	199			

Source: Own calculation on the basis of data from www.galati.insse.ro, 2021.

The rural economy needs urgent support measures through employment, but also solutions to support the food system, especially those areas and segments managed by small producers, rural associations, service operators and other actors in the value chain.

Based on the measures adopted and the experience of other states, the structure analyzed in the current national economy and the results of estimates of the impact of the pandemic, we can conclude certain measures to be implemented by the authorities since the expansion of this crisis.

Thus, apart from stimulating consumption, useful in the short term in the beginning of the relaunch, stimulating investments is essential for Romania. Until a solid recovery, the should large-scale government start infrastructure investments, which can play a significant propagating (multiplier) role in the economy. Thus, the rising unemployment, by the return to the country of the former Romanian emigrants, could be resorbed, implicitly leading to the increase of the population's income and to additional income to the budget [1].

At the level of rural development in terms of agriculture, the European Commission emphasizes the importance of implementing a temporary measure providing for the granting

of funds to farmers and small enterprises from the remaining funds under national rural development programs. This financial support from the funds of the rural development programs is a unique solution but at the same time a risky one. Such blockages can be avoided by capitalizing on other possibilities of help such as:

-Stimulating the establishment of new enterprises to allow the association of small farmers, thus offering the possibility to increase the degree of technologicalization;

-Digitization of production sales. Small farmers should be supported in the transport of products because the online environment and sales platforms require quite high costs. Also, the implementation of such a measure brings with it their need to be trained on the IT equipment and online platforms used;

-Maintain the safe operation of markets during a pandemic. It is the only measure that offers the possibility to the producers to sell their products. Most producers who sell in markets have a very low level of knowledge so that they can afford to trade online;

-Urgent implementation of an investment program in IT communication infrastructure.

# CONCLUSIONS

First, it is clear that the future course of the pandemic will play a key role in determining the future path of economic growth. This is why the autumn forecast is largely based on technical assumptions and analyzes alternative scenarios for the evolution of the pandemic and its economic impact. Second, the economic impact of the pandemic and future recovery prospects will be very different across the EU.

We mention that the effects of this pandemic call into question certain weaknesses of rural development in Romania, vulnerabilities that are not given special attention at the moment due to national agricultural resources and Romania's membership in the EU, but which can become extremely serious. in the situation where we will face an economic or social crisis much more harmful than the COVID-19 pandemic.

### REFERENCES

[1]Albu, L. L., 2020, Evaluation of the macroeconomic impact of COVID-19( Evaluari ale impactului macroeconomic al COVID-19). Bucuresti.

[2]Alexandri, C., Ionel, I., Gavrilescu, C., 2020, The agricultural sector and the rural environment in crisis COVID-19: The challenge of food security, DOI: 10.13140/RG.2.2.13069.97768, Accessed on 03 April 2021.

[3]Amponsah., O., 2020, COVID-19 and disruptions in rural development processes, 3-4. https://www.researchgate.net/publication/346611315\_C OVID-

19\_and\_disruptions\_in\_rural\_development\_processes, Accessed on 03 April 2021.

[4]Arndt, C., Lewis, J.D., 2001, The HIV/AIDS pandemic in South Africa: Sectoral impacts and unemployment. J. Int. Dev. 2001, 13:427–449.doi: 10.1002/jid.796, Accessed on 26 March 2021.

[5]Baldwin, R., 2020, Keeping the Lights on: Economic Medicine for a Medical Shock. https://voxeu.org/article/how-should-we-thinkabout-containing-covid-19-economic-crisis, Accessed on 25 March 2021.

[6]Barrett, C.B., 2020, Actions now can curb food systems fallout from COVID-19. Nat. Food. 2020;1:319–320. doi: 10.1038/s43016-020-0085y, Accessed on 25 March 2021.

[7]Bell, C., Lewis, M., 2004, The Economic Implications of Epidemics Old and New. World Econ. 5.

[8]Bermejo, A., 2004, HIV/AIDS in Africa: International responses to the pandemic. New Econ. 2004;11:164–169. doi: 10.1111/j.1468 0041.2004.00357.x., Accessed on 26 March 2021.

[9]Brainerd, E., Siegler, M., 2020, The Economic Effects of the 1918 Influenza Epidemic. https://econpapers.repec.org/RePEc:cpr:ceprdp:3791, Accessed on 25 March 2021.

[10]Butu, A., Bruma, S.I., 2020, The Impact of COVID-19 Crisis upon the Consumer Buying Behavior of Fresh Vegetables Directly from Local Producers. Case Study: The Quarantined Area of Suceava County, Romania, Int J Environ Res Public Health. 2020 Aug; 17(15): 5485. doi: 10.3390/ijerph17155485, Accessed on 25 March 2021.

[11]European Commission, 2020, Business economy-Euro, https://ec.europa.eu/info/business-economy-euro, Accessed on 04 April 2021.

[12]Gourinchas, P.-O., 2020, Flattening the pandemic and recession curves. In: Baldwin R., Weder di Mauro B., editors. Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes. Centre for Economic Policy Research, CEPR Press; London, UK: 2020. p. 227.

[13]Hanashima, M., Tomobe, K., 2012, Urbanization, industrialization, and mortality in modern Japan: A spatio-temporal perspective. Ann. GIS. 2012;18:57–70. doi: 10.1080/19475683.2011.647078, Accessed on 25 March 2021.

[14]Jonung, L., Roeger, W., 2006, The macroeconomic effects of a pandemic in Europe—A

model-based assessment. Eur. Comm. https://ec.europa.eu/economy\_finance/publications/pag

es/publication708\_en.pdf., Accessed on 25 March 2021.

[15]National Institute of Statistics, 2020, Tempo online, Galati County.

[16]Representative in Romania, European Commission, 2020, Economic forecasts for autumn 2020: Romania - GDP will decrease by 5.2% in 2020 and will increase by approximately 3.3% in 2021, respectively by 3.8% in 2022 (Previziunile economice din toamna anului 2020: România - PIB-ul va scădea cu 5,2 % în 2020 și va crește cu aproximativ 3,3 % în 2021, respectiv cu 3,8 % în 2022),

https://ec.europa.eu/romania/news/20201105\_previziun ile\_economice\_toamna\_romania\_ro, Accessed on 03 April 2021.

[17]Romanian Centre of European Policies, 2020, http://www.crpe.ro/wpcontent/uploads/2020/04/CRPE\_ Policy-Brief-44.pdf, Accessed on 03 April 2021.

[18]Rural environment and covid-19, https://bioresurse.ro/blogs/media/mediul-rural-

%C8%99i-covid19, Accessed on 03 April 2021.

[19]Siche, R., 2020, What is the impact of COVID-19 disease on agriculture? Sci. Agropecu. 2020;11:3–9. doi: 10.17268/sci.agropecu.2020.01.00., Accessed on 03 April 2021.

[20]SocioPol, Economica.net, 2020, 800,000 Romanians returned in the country in two weeks and just 400,000 recognize that they did it because of being afraid of corona virus, https://www.economica.net/sociopol-800-000de-

romani-s-au-intors-in-ara-in-doua-saptamani-doar-400-000-recunosc-ca-au-facut-o-de-

fricacoronavirus\_181635.html, Accessed on 04 April 2021.

[21]Young, A., 2005, The gift of the dying: The tragedy of AIDS and the welfare of future African generations. Q. J. Econ. 2005;120:423–466.doi: 10.1162/0033553053970223, Accessed on 25 March 2021.