

Post Pandemic Social and Environmental Resolutions for Romania - New Challenges and Old Methods in the Race for Poverty End and Planetary Resurgence

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Abstract

The pandemic caused by the corona virus is the most serious crisis that humanity has ever witnessed in this century. For Romania, this crisis highlighted organizational problems, structural issues related to the government, problems of an aging and underperforming health system, but also a total blockage of social and environmental actions. All of this are reflected in the national economical situation.

The paper aims to construct a post-pandemic perspective, where Romania needs to streamline its governmental functioning system, simplifying and digitalizing procedures for strengthening the risk-management sector and securing the foundations for further growth.

The two perspectives analysed are: the social one - by highlighting poverty, healthcare, income inequalities and regional disparities and the environmental one by highlighting the priorities of reducing air and water pollution, protecting the forest fund and conserving the Danube Basin. These two prisms are analyzed through the filtering of national recovery plans, by examining government capacities, the resolutions adopted by state officials, the European 2030 Agenda and the global framework of Sustainable Development drawn by the United Nations.

Keywords: Romania, European Union, Covid19 crisis, Post pandemic perspective

JEL Classification: Q54, I18, I14, P36

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1. Introduction

At the moment, Romania is in a deadlock of the health, political and economic system caused by both the fourth wave of the pandemic as well as by the Ukrain war, energy crisis and the price crisis.

With a forecast of “budget deficit of 5.68%, a depreciation of the national currency against the euro of 2.97% and an unemployment rate of 5.1%” (Ministry of Finance, 2023), the prospects for a rapid recovery are not in sight, and the current pace of political instability constantly fuels the current crisis. All these elements are reflected in the social condition, by deepening economic disparities, worsening poverty and limiting access to health services, and in the environment sector, by increasing

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pollution, delaying the prevention and stopping of illegal deforestation and blocking projects that can bring closer the desideratum of “green economy”.

An important first step has been taken, and the National Recovery and Resilience Plan has been approved by the European Commission. This plan represents the financial support for approaching the fulfillment of the obligations assumed by Romania regarding the European Agenda. The financial allocation for each pillar is as follows:

- Pillar I – Green transition: EUR 15.3 billion
- Pillar II – Digital transition: EUR 3.5 billion
- Pillar III – Intelligent, sustainable and inclusive growth: EUR 9.5 billion
- Pillar IV – Social and territorial cohesion: EUR 5.1 billion
- Pillar V – Health and economic, social and institutional resilience: EUR 6.5 billion
- Pillar VI – Policies for the next generation and youth: EUR 1.3 billion

Starting from the analysis of the current situation, examining the mechanisms that the state has available for the future and corroborating these data with existing forecasts for the near future, this paper aims to outline what Romania will look like after the pandemic, drawing some potential ideas that will facilitate a rapid transition to social stability, simplifying and digitizing procedures for strengthening the risk-management sector and securing the foundations for further growth

2. Review of the Scientific Literature

2.1 Introduction to the Post-Pandemic Context in Romania

The COVID-19 pandemic has undeniably marked the most significant global crisis of the 21st century, profoundly affecting nations worldwide with its multifaceted impacts on health, economy, and societal structures. In Romania, this unprecedented event has exacerbated existing vulnerabilities, shedding light on the critical need for systemic reforms and resilient strategies. The pandemic's onset brought forth a plethora of challenges, highlighting organizational inefficiencies, an underperforming healthcare system, and a stark halt in social and environmental initiatives, which are mirrored in the nation's economic downturn. (European Commission, 2023).

There have been four peaks to the COVID-19 outbreak in Romania, in “8 august 2020, 18 November 2020, 3 April 2021, and 12 October 2021” (Our World in Data, 2021), all have significantly impacted the pace at which society operates, disrupting supply chains, leading to health crises, government bottlenecks, informational

instability, increasing poverty among the already precarious population and creating new areas of vulnerability among people exposed at financial risks.

The crisis brought a strong contraction of gross domestic product (“GDP”), at its “highest rate of -3.9%” (Eures, 2021) downfall in the second quarter of 2020 and in the matter of jobs, during 2020 only “4.9 million people were employees, compared to 5,4 million from 2019”, and in march 2021, the “unemployment rate reached 5.5%” ((INS, 2021). For the following years Romania's economic growth decelerated to 1.8% in 2023, impacted by high inflation and limited domestic demand. Growth is expected to „recover to 2.9% in 2024 and further to 3.2% in 2025”, supported by private credit growth and EU-funded investments. Inflation, which „reached 9.7% in 2023”, is projected to ease to „5.8% in 2024 and 3.6% in 2025”. (European Comission, 2024)

The economic ramifications of the pandemic have been particularly stark, with Romania facing a severe contraction in GDP and a troubling increase in unemployment rates. This economic strain, coupled with political instability, has further exacerbated social inequalities, propelling a significant segment of the population into poverty and limiting access to essential health services. Such challenges necessitate a critical assessment of the National Recovery and Resilience Plan approved by the European Commission, which represents a pivotal step towards Romania's economic and social rejuvenation (National Institute of Statistics, 2021; The Ministry of Investments and European Projects, 2023).

In juxtaposition with Romania's internal struggles, the global response to the pandemic offers a diverse spectrum of strategies, with countries adopting varying approaches to mitigate the crisis's impacts. This global perspective underscores the importance of a tailored approach that considers Romania's unique socio-economic and environmental context. The comparative analysis of Romania's response within the broader international framework reveals significant insights into effective crisis management and recovery strategies, emphasizing the critical role of adaptability and strategic foresight in navigating the post-pandemic landscape.

2.2 Examination of Romania's Pre-Pandemic Vulnerabilities

Before the advent of the COVID-19 pandemic, Romania was navigating through a myriad of systemic challenges, deeply rooted in its socio-economic and healthcare frameworks. The pandemic not only exposed but also intensified these pre-existing vulnerabilities, offering a critical lens through which to assess the foundational aspects that necessitated robust reform and strategic foresight.

Economic and Social Challenges Romania's economy, marked by a growth trajectory that belied underlying fragilities, faced significant disparities. The nation

grappled with high poverty rates and pronounced income inequalities, situating it among the European Union members with considerable social challenges (Gazibar & Giuglea, 2021). The structural economic vulnerabilities were underscored by a forecasted budget deficit of 7.2%, a depreciation of the national currency by 2.97%, and an unemployment rate of 5.1%, highlighting the precarity of Romania's economic stability and the imperative need for targeted interventions (National Institute of Statistics, 2021).

Healthcare System Constraints The health system's response to the pandemic has been a litmus test for its resilience and capacity. As noted by the OECD/EU (2020), "Romania's healthcare system, already grappling with limited resources and aging infrastructure, was significantly overwhelmed, exposing the urgent need for systemic health reforms." This sentiment is echoed in reports highlighting the system's inability to manage the surge in COVID-19 cases effectively, underscoring a desperate need for modernization and increased healthcare funding (European Federation for Transport and Environment AISBL, 2018). **Environmental Concerns** Environmental sustainability emerged as a significant concern, with issues such as air and water pollution, deforestation, and inadequate waste management underscoring the need for enhanced environmental governance and sustainable practices (European Commission, 2021). These pre-pandemic environmental challenges highlighted the critical need for policies that prioritize ecological balance and sustainability, underscoring the interconnectedness of environmental health and societal well-being.

2.3 Comparative Analysis of Pandemic Responses

In the unprecedented global crisis precipitated by COVID-19, nations worldwide adopted a myriad of strategies to mitigate the impact of the pandemic, tailored to their unique socio-economic, healthcare, and governance structures. Romania's approach, while reflecting global trends, also showcased distinct strategies shaped by its pre-pandemic vulnerabilities and systemic challenges. This section provides a comparative analysis of pandemic responses, focusing on public health measures, economic interventions, and governance adaptations, enriched with in-depth research and critical insights.

Romania's public health response to the pandemic, including lockdown measures, testing protocols, and vaccination campaigns, aligns with global efforts but also highlights specific challenges and achievements. For example, while countries like South Korea and Singapore quickly implemented widespread testing and contact tracing, Romania's efforts in these areas reflected the constraints of its healthcare infrastructure (Our World in Data, 2021). The vaccination campaign, a critical component of Romania's strategy, can be compared to the rapid rollout observed

in the United Kingdom, underscoring the importance of logistical efficiency and public trust in health authorities (European Commission, 2021).

Economic relief measures implemented by Romania, aimed at supporting businesses and individuals affected by the pandemic, mirror actions taken by many countries. However, the scale and focus of these measures vary significantly. For instance, the fiscal stimulus packages in the United States, characterized by direct payments to citizens and substantial support for businesses, contrast with Romania's more conservative fiscal approach, necessitated by budgetary constraints and economic vulnerabilities pre-dating the pandemic (The Ministry of Investments and European Projects, 2023).

The governance challenges exacerbated by the pandemic necessitated swift policy adaptations and innovations. Romania's experience, particularly in digital governance and streamlining decision-making processes, reflects a broader global shift towards more agile and transparent governance models in crisis response. This shift is evident in comparisons with countries like New Zealand, where effective communication and decisive leadership have been highlighted as key factors in the successful management of the pandemic (The Ministry of Investments and European Projects, 2023).

3. Research Methodology

This study's analytical framework is designed to evaluate Romania's post-pandemic recovery strategies, focusing on socio-economic and environmental impacts of COVID-19. Employing a mixed-methods approach, it combines qualitative and quantitative analysis, including policy review, economic reports, and environmental studies, alongside statistical examination of indicators like GDP growth and sustainability metrics. Data from the European Commission and National Institute of Statistics underpin the economic and social analysis.

Policy documents, particularly Romania's National Recovery and Resilience Plan and EU guidelines, are critically reviewed against the UN's Sustainable Development Goals (SDGs) to assess policy alignment with European and global objectives. Interviews with stakeholders—government officials, experts, and civil society representatives—provide qualitative insights on policy effectiveness and areas for improvement.

Quantitative data from official sources is analyzed using statistical software and Geographic Information System (GIS) technology to visualize environmental impacts and track policy outcomes. The study sets specific evaluation criteria reflecting Romania's recovery objectives and the European Green Deal, focusing

on economic resilience, social equity, healthcare enhancement, digital transformation, and environmental sustainability.

4. Results and Discussion

4.1 Post pandemic perspective – securing the foundations for further growth

Post-pandemic recovery in Romania anticipates gradual economic upliftment, with GDP expected to rebound by 3¼% in 2024 and 3¾% in 2025, alongside a gradual improvement in private consumption and an unemployment rate stabilizing around 6%. However, this recovery is contingent upon government policy stability and public trust, highlighting the importance of avoiding a return to pre-pandemic vulnerabilities. “Only an economic recovery isn’t enough, because that will mean returning to the same outdated system” (Esther Duflo, 2010) a sustainable recovery must address systemic issues, including strengthening social security, modernizing healthcare, enhancing policy relevance, increasing data digitization and transparency to counter misinformation, and focusing on the global climate crisis.

Strategies for sustainable growth include:

- **Healthcare Modernization:** Expanding and upgrading healthcare facilities, particularly in rural areas, to improve life expectancy and quality of life.
- **Protecting Vulnerable Populations:** Implementing legal and economic measures to ensure job security and mobility for at-risk groups, supported by legislation and contractor support.
- **Digitalization:** Streamlining processes across sectors by reducing bureaucracy and enhancing transparency, which encourages investment and brings citizens closer to policymakers.
- **Political Stability:** Coordinating political movements and aligning central and local decision-making processes, thereby expediting legislative initiatives and stabilizing the political landscape with agendas reflecting current realities.
- **Environmental Action:** Addressing pollution through monitoring, legislation on forest conservation, technological upgrades to combat illegal deforestation, and promoting green energy investments.

By focusing on these areas, Romania can lay a solid foundation for future growth, ensuring resilience against future crises and alignment with global sustainability goals.

4.2 A green recovery for Romania

In Romania, there are already several hydropower plants, which combined with wind farms and several areas implanted with photovoltaic farms will be able to produce enough energy to meet domestic demand and even export energy to the European and non-European grid. The offshore energy area of the Black Sea is also in the wind production sector. This area is the only untapped source, given that there are air corridors in the Black Sea area that can provide significant energy

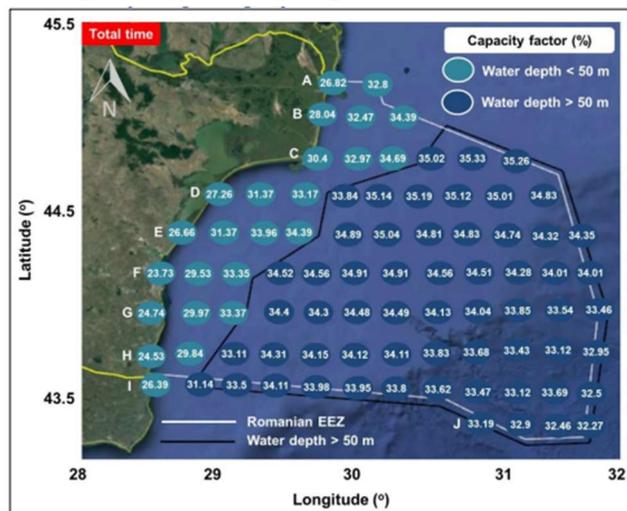
compared to land areas. Planting offshore wind turbines to capture this resource could be an autonomous solution for energy supply.

Solar and wind energy – “Romania does not sufficiently exploit these green energy resources, although their potential is enormous” (EY, 2021). In Romania, the areas with energy potential are the following:

- Danube Delta - solar power;
- Dobrogea - wind and solar;
- Moldova - hydropower, wind and biomass;
- Carpathians Mountains - biomass and hydropower;
- Transylvania - hydropower;
- Western Plain - geothermal;
- Subcarpathian - biomass and hydropower
- Southern region - biomass, geothermal and solar. (Stefan Drago, Cîrstea et al, 2018)

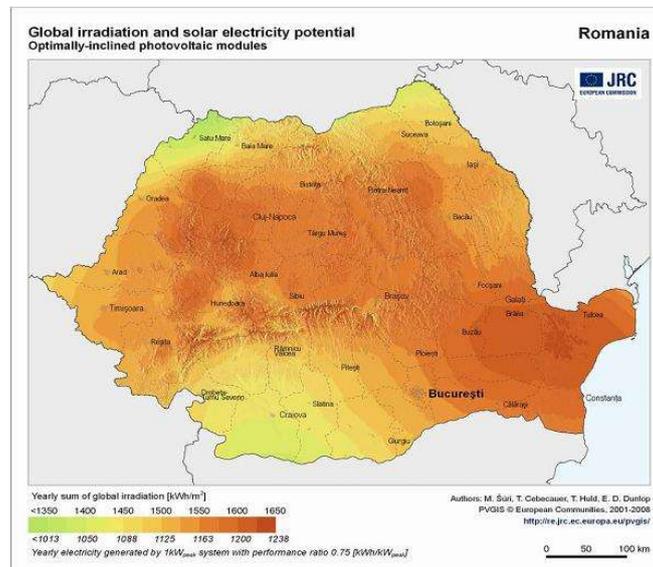
In order to better illustrate why the transition to a green energy production is impeded, in fig.1 is presented the offshore energy area of the Black Sea with the potential for profit, and in fig. 2 are presented the areas that receive the highest dose of solar energy with the peak in “Dobrogea region with 1650 kWh/m² global irradiation.”

Figure 1. Average capacity factor (%) of MHI Vestas V174 9.5 MW turbine, U100, 2000- 2019, corresponding to the grid points inside the Romanian EEZ



Source: Calculation by Dunărea de Jos University and EPG

Figure 2. Romania Solar Irradiation Area



Source: EU Commission, PV GIS

Investing in mixed renewable energy sources is pivotal for Romania to phase out coal-based power plants, enhance production efficiency, reduce carbon emissions, and protect the biosphere. Parallel investments in green energy production and the modernization of electricity infrastructure are essential for energy storage, improving management and connectivity with the European network ("International Energy Agency, 2020").

The integration of digitalization and artificial intelligence (AI) is crucial for developing a sustainable, resilient energy network. AI can optimize network management, preempt issues, and enhance response times, necessitating a modern infrastructure to support such advancements ("European Commission, Digital Innovation, 2021").

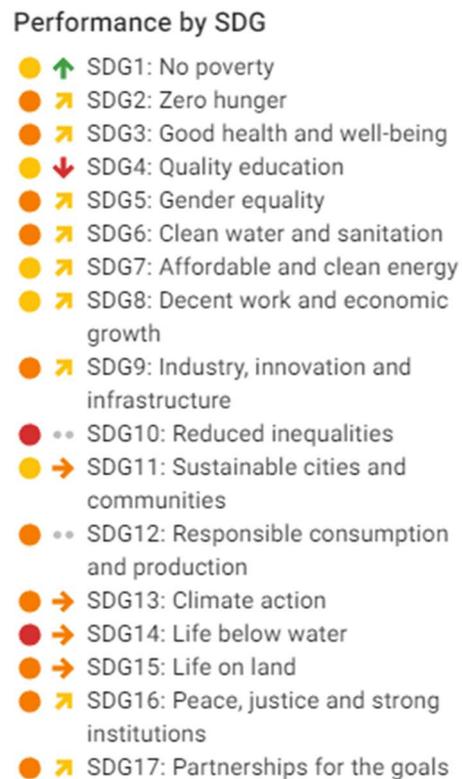
Moreover, addressing urban mobility through the replacement of polluting buses with greener alternatives and the digitalization of public transport can significantly reduce urban pollution. Promoting the adoption of hybrid or electric vehicles is also critical for reducing Romania's high rate of polluting vehicles ("European Environment Agency, 2020").

Implementing these strategies requires moving beyond planning to swift action, leveraging available financing to address climate change urgently. Traditional approaches like building restoration or gas network expansion are inadequate for

current environmental challenges. Comprehensive and accelerated implementation of green technologies and policies is essential for Romania's sustainable recovery and long-term environmental resilience.

4.3 Accelerating social parity

Figure 3. Performance by SDG – Romania



Source: SDGindex

The pandemic deepened the problems already existing in the Romanian society. In order to achieve social parity, it is necessary, according to the European agenda, "the eradication of poverty and hunger, access to an efficient medical system and ensuring ways to maintain a healthy lifestyle, ensuring access to quality education, equal opportunities for gender and race, access to safe drinking water, a favorable working environment and financial growth, the reduction of inequalities, the formation of sustainable cities and communities and the fairness of justice." (United Nations, 2020)

The sudden changes and the pandemic reality have forced many people to adapt to a new lifestyle. In Romania, during the pandemic the degree of poverty increased, the medical system collapsed, education could not be fully formed due to the online environment, inequalities increased and diversified, the stability of the business environment and implicitly the employees suffered, and the communities were negatively impacted by the whole experience. Currently, Romania ranks last among Eastern European countries when it comes to implementing sustainable development goals, registering a positive evolution only in combating poverty (Fig. 3).

According to the sustainable development index, Romania ranks "39th globally, 6th among Eastern European countries." (SDG index 2023)

The best solution at the moment to remedy these problems and reduce inequalities is to implement a better system for monitoring the needs and problems existing in the territory and the possibility of directly addressing the identification problems through a well-developed and non-bureaucratic national mechanism. . Eliminating the bureaucratic factor and offering quick ways to respond to these problems is the only solution to shorten the flow of proposal-voting-bidding-implementation to the general benefit of the population.

Starting from this new national response mechanism, Romania gets a real chance to advance towards achieving social parity. The ultimate goal of these country efforts is to achieve prosperity, and the success of the implementation of a new national management system must be focused on resilience, regenerative value creation and co-innovation.

4.4 Recommendations for Future Research and Policy Making

In 2023, Romania's economic recovery continued at a slower pace with a GDP growth of 1.8%, reflecting challenges such as high inflation which decelerated to 9.7% from 12% in 2022. This marks a significant adjustment from earlier years, with a 5.4% contraction in 2020, followed by rebounds of approximately 4.1% in 2021 and 5.9% in 2022, indicating a phased recovery post-pandemic. ("European Commission, 2024").

However, a mere economic rebound is insufficient; it risks reverting to an outdated system ill-prepared for future crises. Lessons from the pandemic underscore the need for a resilient social security framework, a modernized healthcare system, policy innovation, enhanced data digitization, and transparency to mitigate misinformation and address climate change comprehensively.

Strategic initiatives for robust growth encompass:

- **Healthcare Enhancement:** Urgent modernization and expansion of healthcare facilities are essential, especially in rural areas, to improve life expectancy and quality of life ("World Health Organization, 2023").
- **Protection for the Vulnerable:** Implementing legal and economic safeguards for at-risk populations, ensuring mobility and job security through supportive legislation and employer incentives.
- **Digital Transformation:** Streamlining operations across sectors through comprehensive digitalization reduces bureaucracy, increases transparency, and fosters long-term investment ("Digital Europe Programme, 2023").
- **Political Stability:** Reinforcing political collaboration and aligning central and local governance facilitate swift legislative processes, enhancing political coherence and addressing public issues effectively.
- **Environmental Stewardship:** Addressing pollution through enhanced monitoring, forest conservation legislation, anti-deforestation technology, and promoting green energy investments are pivotal for sustainable development ("United Nations Environment Programme, 2021").

Central to Romania's post-pandemic recovery is the dual focus on social parity and environmental sustainability. This entails expanding healthcare access, enhancing educational opportunities, supporting economic inclusion, and advancing environmental sustainability through the green transition, biodiversity conservation, and public engagement. An integrated policy framework, investment in innovation, and strengthened partnerships are essential for achieving these objectives, positioning Romania on a path towards inclusive, sustainable, and resilient development.

5. Conclusions

This paper highlights two forms of response to this challenge. A first form of response is the one with immediate impact - upgrading, modernizing and increasing the capacity of the medical system; taking legal and economical measures to protect the vulnerable ones; digitization; stabilizing the political environment by strengthening and coordinating political movements and an active involvement in solving environmental problems. All these desideratums are, in fact, actions that must be taken urgently in order to obtain the stability of the sanitary system and to ensure a first secure base for the development and implementation of the national-European projects.

Following the immediate impact response phase will come the long-term response form that will ensure long-term sustainability and the achievement of the national welfare goal. This form of long-term response is in fact the return to business as always, the return to normalcy and the dedication of the activity towards the alignment and fulfillment of the objectives assumed by Romania in relation to the European Agenda 2030. This stage will materialize two elements:

- Green recovery by changing the sources of industrial and energy polluting production with the green, non-polluting ones, by digitizing and modernizing the national infrastructure and by implementing a smart city mobility system.
- Accelerating social parity – achieving national well-being by reducing disparities, reducing poverty, developing rural areas, facilitating education in a form of continuity for young people and removing institutional barriers.

All these solutions represent only a small part of the complex set of country actions and projects that must be implemented. Dedication, consistency and alignment of decision makers are the solution for the successful implementation of all the options presented in this paper.

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