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The problem of pollution in Romania: intergenerational justice – preserving the "clean air" resource for Bucharest

Iulian-Costin Matache*

Abstract

This paper examines the problem of air pollution in Romania through the lens of intergenerational justice, with a particular focus on the preservation of the "clean air" resource in Bucharest. The central research question asks whether, and to what extent, Romanian legislation and public policies regarding air quality reflect principles of intergenerational justice and contribute to the protection of this resource for future generations. The paper has three main objectives: first, to outline the theoretical framework of distributive justice and resource allocation, drawing on the works of John Rawls and Ronald Dworkin; second, to explore the normative debate on intergenerational justice and the duty of present generations to conserve natural resources; and third, to assess the extent to which Romanian legal and policy measures address air pollution in Bucharest in a way that is consistent with these theoretical perspectives. Methodologically, the paper relies on qualitative analysis of political and philosophical literature, together with a document analysis of Romanian and European legislation, policy measures, and publicly available air-quality data. The findings suggest that, at the normative level, Romania has developed a legal and policy framework aimed at improving air quality and limiting pollution, including measures such as the Air Quality Law, the "Oxygen Tax," and incentive schemes for low-emission vehicles. These measures indicate an increasing institutional recognition of the need to protect environmental resources for future generations, although important implementation and monitoring challenges remain.

Introduction

In this paper, I aim to discuss the issue of the "clean air" resource from the perspective of intergenerational justice. More specifically, I will examine whether, and to what extent, principles of intergenerational justice are respected in relation to this environmental problem in Romania, with a particular focus on air quality in the Municipality of Bucharest. I chose to analyze documents and policies concerning this resource because Romania's capital has recently recorded striking figures regarding the amount of pollutants in the air people breathe, and I intend to analyze whether the legislation in force, together with the measures already implemented or currently being prepared, take these aspects into account and

* National University of Political Studies and Public Administration / Faculty of Public Administration / Bucharest, Romania E-mail: iulian.matache@administratiepublica.eu

whether they aim at preserving or even improving this resource for future generations. I should note here that, theoretically speaking, clean air is a public good, being both non-excludable (no one can prevent someone else from consuming it) and non-rivalrous (the consumption of clean air does not limit the amount of clean air available for others to consume).1 However, if, for example, a fire breaks out, oxygen is consumed and breathable air suddenly becomes limited, so rivalry arises with regard to the quantity of the good available. I believe pollution operates according to the same principle, in the sense that each individual has, to a greater or lesser extent, an impact on air pollution, especially through the use of vehicles powered by combustion engines that have lower emissions standards. Can we therefore consider clean air a common good, given the situations in which it acquires the characteristic of rivalry? I raise this issue because, if clean air is regarded in certain situations as a common good, then some present-day behaviors may negatively influence the conservation of this good, and thus the quantity of the good available to future generations would be considerably diminished. Therefore, I do not believe we can discuss limiting or authorizing the use of the clean-air resource as such (as in the case of a public pasture, for example), but we can consider sanctioning human actions that result in the release of pollutants into breathable air and thus in limiting the clean-air resource available.

Given these aspects, I aim to structure this paper into three sections. First, I will consider the literature discussing the problem of resources and the way in which they should be distributed in a society (starting from the theories of John Rawls and Ronald Dworkin). I will then discuss the theoretical debate on intergenerational justice and will try to present views from both sides regarding whether or not we have a duty to conserve resources for future generations. Finally, in the analytical section, I will look at Romanian legislation on clean air and its preservation in order to see whether measures such as Decision No. 539/2019 of the General Council of the Municipality of Bucharest (the Oxygen vignette) comply with and propose the implementation of such measures aimed at protecting and improving the "clean air" resource for future generations.

1. Resources and distributive justice

In this first theoretical discussion, I will consider writings on how resources should be distributed in a society so that this process is fair and includes some form of compensation in cases of distributive injustice. By distributive justice I mean the fair allocation of goods in a society, whether we are talking about rights, freedoms, opportunities, welfare, and so on. I will begin with John Rawls because the model he proposes in his second principle discusses how inequalities in a society should be arranged so as to be acceptable. Thus, he argues that as long as

[1] Miroiu, Adrian, "Foundations of Politics. Volume II: Rationality and Collective Action", Polirom, Iași, 2007, pp. 119–120.

there is equality of opportunity regarding access to offices and positions, and inequalities are also to the benefit of the least advantaged members of society, then those inequalities are justified. He also discusses both primary goods (rights, liberties, opportunities, income, and welfare) and what he calls natural goods (health, intelligence, and imagination).[2] Therefore, he proposes a model of justice as fairness which, if applied to the intergenerational dimension, allows us to say that possible excessive consumption of certain goods in the present may be considered just if it serves future generations, which in turn cannot exercise any effective control over what happens in society before they come into existence. On the other hand, Ronald Dworkin brings into discussion an egalitarian theory based on the equal distribution of resources, so that every member of society can decide what kind of life to pursue, fully aware of both the cost their actions impose on others and the fair quantity of resources they may use. Considering Dworkin's model in relation to the specific resource chosen in this paper, we may say that each of us has a right to an equal amount of clean air. The problem that arises here is this: what remains to be done in the case of individuals who, through their own actions, whether voluntary or not, limit the amount of clean air available to other members of society, who are then forced to bear the consequences of polluted air without themselves affecting its quality?[3]

It seems that the fair solution would be one based on taxation/compensation, so that those who undertake actions that affect air quality bear the compensatory costs. A somewhat complicated situation arises here, especially if we look at the international level. I am referring to states with powerful economies, such as the United States or China, which developed over time thanks to industries based on the consumption of fossil fuels, which inevitably leads to environmental pollution.[4] These abuses in the use of various resources have led to what we today call global warming, for which the Paris Agreement exists as a measure intended to limit climate change. What I want to emphasize here is that, now that developing states need strong industrialization in order to raise the standard of living of current and future citizens, they face this obstacle with regard to pollution and, implicitly, development, because of the abuses committed by other global actors in the past. Consequently, states that did not develop as quickly are forced to bear the consequences, and thus current generations in those countries cannot guarantee future generations the same living conditions they themselves enjoyed in the past. In this way, Christoph Lumer argues that the worst aspect of resource consumption and pollutant emissions is that future generations in developing countries must bear the heaviest costs, especially since they cannot afford alternative

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[2] Rawls, John, "A Theory of Justice", Harvard University Press, 1999, p. 54

[3] Dworkin, Ronald, "What is Equality? Part 2: Equality of Resources", Philosophy & Public Affairs, vol. 10, no. 4, 1981, p. 188.

[4] Lumer, Christoph, "Principles of Generational Justice", Handbook of Intergenerational Justice, UK; Northampton, 2006, p. 45.

methods of sustainable development.[5] Thus, from a Rawlsian perspective, we may state that the current stage of the distribution of the clean-air resource at the global level has not respected the difference principle, since the least advantaged members (developing countries in this case) did not benefit from the development of other states that are now developed, states that should have assumed the costs of the actions they undertook in order to develop during an earlier historical period.

2. Intergenerational justice and the duty to conserve resources

In this second section, I will discuss the theoretical debate concerning the intergenerational distribution of resources and will try to weigh the different views regarding whether or not current generations have a duty to guarantee and conserve resources for the generations to come. Central to this discussion is the leitmotif of climate change, more precisely global warming, a phenomenon that is continuously intensifying both in terms of its effects and its public visibility, being at once widely debated and highly controversial. As John Broome notes, the issue here is not what we "can do" about climate change, but rather an ethical question: what "should" we do in this situation?[6] He also points out that not every question of the form "what should" is an ethical one, but those to which he refers are precisely those that involve conflicts of interest. In this case, Broome notes, questions framed in this way are always ethical in nature. Thus, to answer the question "what should we do?", the most readily available intuitive answer is that the wealthiest members of society must reduce greenhouse gas emissions in order to provide succeeding generations with living conditions at least equal to those they themselves enjoyed. From an individual perspective, however, the same John Broome also points out that each of us contributes, to a lesser or greater extent, to the emission of polluting gases (whether through the use of cars or through the purchase of goods whose production consumes energy), and all these activities harm the environment. Thus, he says, thinking about things in a strictly cost-benefit manner is wrong, because, for example, despite the gains of present-day industries in terms of short-term benefits, if such projects harm society in the long run, then those initiatives should not continue because they are morally wrong: those who benefit from the process should not transfer the burden of the costs to those who will not themselves benefit from those projects.[7]

In a similar direction, Henry Shue discusses the rule known in economic terms as the "internalization of externalities"[8]. More precisely, when the price of a product does not include the costs incurred in the production process, those costs are

[5] Ibid., p. 46.

[6] Broome, John, "The Ethics of Climate Change", Scientific American, 298(6):96–102, 2008, p. 97.

[7] Ibid., p. 98.

[8] Shue, Henry, "Global Environment and International Inequality" in Gardiner et al., "Climate Ethics. Essential Readings", Oxford University Press, 2010, p. 102.

externalized, that is, borne by other actors. Thus, incorporating this cost into the base price of the product is called internalizing an externality and, in line with what was mentioned in the previous paragraph, this means that, normally, "those who make the mess must also clean it up."[9] Therefore, Shue notes, incentives play an important role here: if the one who "makes the mess" enjoys the benefits and bears no cost, not only do they have the proper incentives to repeat such actions, but this is also unfair to the one who bears the consequences. By imposing costs on others, despite those others' different interests and probably without their consent, an inequality is created because what advantages one person creates an unwanted situation for another. Thus, he concludes that such inequalities created unilaterally can be remedied by imposing additional burdens on the person who created the inequality. More specifically, the person placed at a disadvantage has the right in the future to receive compensation that covers at least the inequality created in the past. In the terms of intergenerational justice, it is therefore fair for current generations to bear the costs arising from their process of development so that their successors may enjoy at least the same conditions as those who came before them.[10]

These ideas are also supported by Joseph Mazor, who discusses an interpersonal obligation that exists among present generations to conserve natural resources for future generations. He presents three arguments in this regard: (1) once members of the second generation exist, members of the first have an obligation to ensure them at least an equal quantity of natural resources to that enjoyed by the former; (2) if some members of the first generation violate these obligations, the remaining members of that same generation bear a residual responsibility to compensate for the damage caused by the others; and (3) those in the first generation who anticipate that other members will damage the environment may require, in order to avoid a situation of residual responsibility, the conservation or preservation by their contemporaries of a sufficient quantity of natural resources. If preserving an equivalent quantity of resources proves impossible, then the first generation has an obligation to conserve natural resources for future generations.[11]

As a criticism in this respect, Derek Parfit discusses the example of choosing between two policies, referring to a choice between two energy policies (one safe and one risky). [12] Both would be equally safe for the next two centuries, but one of them would involve major risks for the future. Thus, if we choose the risky policy, the standard of living would improve considerably for the next two centuries, but after that a catastrophe would certainly occur that would injure and kill thousands

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[9] Ibid.

[10] Ibid., p. 103.

[11] Mazor, Joseph, "Liberal Justice, Future People, and Natural Resource Conservation", Philosophy & Public Affairs 38, no. 4, 2010, p. 381.

[12] Parfit, Derek, "Energy Policy and the Further Future. The Identity Problem", in Gardiner et al., "Climate Ethics. Essential Readings", Oxford University Press, 2010, p. 112.

of people. We must also bear in mind that, depending on which policy is chosen, people would marry different partners and thus persons would be born who would not have been born had we chosen the other policy. Therefore, the question is this: if we choose the risky policy that would cause a catastrophe, yet the standard of living was better for a period and certain people were born as a result of this choice, is our choice worse for everyone? Parfit's answer is no; it would in fact be a beneficial choice for those who were born because of it. His argument is that, despite those struck by the catastrophe not having a very high quality of life, they would not have been born had the risky policy not been chosen. Thus, he concludes that it is not wrong to choose the option that later proves devastating, because the people who were born as a result of that choice would not have existed if the safe policy had been chosen.[13]

On the other hand, Walter Sinnott-Armstrong lists several assumptions regarding climate change: that global warming has begun, that the situation will worsen in the future, and that human activity is the main cause. The assumption on which I will focus, however, concerns governments and the way in which they can contribute to slowing the process of global warming. Given the already excessive amount of carbon dioxide in the atmosphere, Armstrong considers it too late for this phenomenon to be stopped entirely, but governments can take measures through which the situation may improve in the future. He speaks here about the limits governments can impose regarding gas emissions and about other environmentally beneficial measures, such as incentives for more efficient energy use and measures to prevent deforestation; however, the most important aspect, he says, is the identification and development of alternatives to fossil fuels - in other words, sustainable development. He also notes that such alternatives may be found soon if governments begin such projects as quickly as possible.[14]

In the third section, I will focus on the case of Romania, with particular emphasis on legislation and government measures, in order to determine whether or not these are consistent with the ideas presented in the first two sections.

3. Pollution in Romania. Is the air quality in Bucharest a problem for future generations?

In this final section, I will attempt a proper analysis of the data currently available regarding Romanian state initiatives concerning the problem of pollution, the case study I have in mind being air quality in Bucharest and the measures that have, or have not, been taken to improve this situation for future generations. I will first briefly discuss EU provisions regarding air quality, and then I will turn

[13] Ibid., p. 114.

[14] Sinnott-Armstrong, Walter, "It's Not My Fault. Global Warming and Individual Moral Obligations", in Gardiner et al., "Climate Ethics. Essential Readings", Oxford University Press, 2010, p. 332.

to Romanian legislation and the plans being launched so that Bucharest may have air that is as clean as possible.

At present, the European Union's environmental policy framework is guided by the 8th Environment Action Programme (EAP) to 2030, which provides the overarching direction for EU action on climate and environmental protection until the end of the decade. Building on the European Green Deal, the programme sets out six priority objectives for 2030: (1) achieving the greenhouse gas emission reduction target and climate neutrality by 2050; (2) strengthening adaptation and resilience to climate change; (3) advancing towards a regenerative growth model that decouples economic growth from resource use and environmental degradation; (4) pursuing a zero-pollution ambition, including for air, water and soil; (5) protecting, preserving and restoring biodiversity; and (6) reducing the main environmental and climate pressures linked to production and consumption. In this updated framework, air quality is no longer treated as an isolated issue, but as part of a broader transition towards sustainability, public health protection, and climate resilience. The programme also emphasizes better implementation and monitoring, recognizing that the effectiveness of environmental policy depends not only on legislative commitments, but also on the capacity of Member States and local authorities to translate these objectives into concrete measures.[15]

With regard specifically to air quality at the European level, recent data from the European Environment Agency show that air pollution continues to have a major impact on public health, although the overall burden has declined compared with earlier years. In 2023, an estimated 182,000 premature deaths in the EU-27 were attributable to exposure to fine particulate matter (PM2.5), while 34,000 were linked to nitrogen dioxide (NO2) exposure and 63,000 to ozone (O3) exposure. These figures indicate that air pollution remains the largest environmental health risk in Europe, even as EU policies have contributed to a long-term reduction in mortality associated with polluted air.[16] An important recent development at EU level is the adoption of Directive (EU) 2024/2881 of 23 October 2024 on ambient air quality and cleaner air for Europe (recast), which updates and consolidates the previous legal framework. The new directive is explicitly linked to the EU's zero-pollution objective and aims at the progressive improvement of air quality to levels no longer considered harmful to human health, natural ecosystems, and biodiversity. It also places stronger emphasis on aligning EU air-quality standards with the latest World Health Organization guidelines, improving monitoring and modelling, strengthening public information, and requiring periodic review of the standards, with the first review due by 31 December 2030. A further important element of Directive (EU) 2024/2881 is the tightening of the air-quality standards applicable

[15] EU environment action programme to 2030, available online at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:4591047

[16] Premature deaths due to exposure to fine particulate matter in Europe, available online at: https://www.eea.europa.eu/en/analysis/indicators/health-impacts-of-exposure-to

from 2030. In particular, the annual limit value for PM2.5 is reduced from 25 μg/m³ to 10 μg/m³, while the annual limit value for NO_2 is reduced from 40 μg/m³ to 20 μg/m³. This revision reflects a significantly stricter regulatory approach and a closer alignment of EU air-quality policy with the objective of reducing long-term health risks associated with exposure to particulate matter and nitrogen dioxide.[17] I will not go into further detail here, but what I wanted to underline is that, at European level, the problem is acknowledged and measures have been implemented in recent years so that this natural resource may be as well preserved as possible.

With regard to the situation in Romania, I begin by mentioning Law No. 104 of 15 June 2011 on ambient air quality. Its purpose is to regulate measures intended to maintain air quality where it complies with the established objectives, and to improve it in cases where the recorded values do not fall within the established limits. Thus, among the measures provided for by this law are: the assessment of ambient air quality across the entire territory of the country, the promotion of increased cooperation with the other EU member states with a view to reducing air pollution, support for the process of combating air pollution, and the long-term monitoring of trends and improvements resulting from the implementation of those measures.[18] I therefore observe that, from a normative point of view, Romania has a legislative foundation through which it defines and classifies existing pollutants according to assessment thresholds, while also providing a framework for action aimed at limiting emissions and, implicitly, improving the quality of the air people breathe.[19] The implementation of this law is carried out through the National System for the Assessment and Integrated Management of Air Quality (SNEGICA), which ensures the institutional and legal framework for cooperation among the public authorities competent in this field. This system contains two component parts: the National Air Quality Monitoring System (SNMCA) and the National Atmospheric Pollutant Emissions Inventory System (SNEPA). The powers and responsibilities of SNEGICA are provided for in Articles 7–23 of Law No. 104/2011.[20] With regard to the assessment of ambient air quality, Romania established, in accordance with

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[17] DIRECTIVE (EU) 2024/2881 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2024 on ambient air quality and cleaner air for Europe, available online at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202402881

[18] Law No. 104 of 15 June 2011 on ambient air quality, available online at: http://www.calitateaer.ro/export/sites/default/.galleries/Legislation/national/Lege-nr.-104_2011-calitatea-aerului-inconjurator.pdf_2063068895.pdf

[19] This law transposed into national legislation two European directives: Directive 2008/50/EC of 21 May 2008 on ambient air quality and cleaner air for Europe (http://www.mmediu.ro/app/webroot/uploads/files/Directiva%202008_50_CE.pdf) and Directive 2004/107/EC of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (http://www.mmediu.ro/app/webroot/uploads/ files/Directiva%202004_107_CE.pdf). Both directives were subsequently repealed and recast by Directive (EU) 2024/2881 of the European Parliament and of the Council of 23 October 2024 on ambient air quality and cleaner air for Europe (recast).

[20] Air Quality (Ministry of Environment, Waters and Forests), available online at: http://www.mmediu.ro/categorie/calitatea-aerului/56

Annex No. 2 to Law 104/2011, 13 urban agglomerations and 41 zones (identified at county level). The agglomeration on which I will focus below is the Bucharest Agglomeration, with data on the capital's air quality being provided by the National Air Quality Monitoring Network (RNMCA). However, before turning to the data currently recorded, I note that in 2015 an air-quality assessment was carried out by graphical modeling, and I will attach those results in the annexes.[21] I therefore observe that, at that time, the maximum values recorded in Bucharest for three of the most dangerous pollutants were: up to 62 µg/m3 of PM2.5 (dust particles, the limit value being 17 µg/m3), 110 µg/m3 of nitrogen dioxide (the limit value being 12–15 µg/m3), and 7.8 µg/m3 of benzene (limit value 0.80 µg/m3).[22] [23]

In Romania, ambient air quality continues to be regulated primarily by Law No. 104/2011 on ambient air quality, as subsequently amended. A more recent development at national level is Government Decision No. 119/2023 approving the National Air Pollution Control Programme (PNCPA), which complements the existing legal framework through a more strategic and operational approach to emission reduction and air-quality improvement. At the same time, the adoption of Directive (EU) 2024/2881 at European level will likely require further updates to Romanian legislation in the coming years.[24]

Indeed, the results appear to be disastrous, but I will not yet pronounce myself fully in this regard because I have identified the data-collection methodology as both incomplete and, at times, inefficient.[25] According to these data, on 16 February 2020, in the center of the capital, the PM10 index (dust particles) was at a medium level, with a value of 47.66 µg/m3, while the same index recorded one day earlier reached a high level of 66.73 µg/m3. On the other hand, the CO (carbon monoxide) and NO2 (nitrogen dioxide) indices recorded very good values on both days. However, the reason why I find the methodology somewhat problematic in this case, more precisely, the placement of the monitoring sensors - is that there is vegetation in their immediate vicinity (see Annex 6). The same is in fact true for all the sensors installed through the RNMCA in the capital, which means that the data collected by these sensors do not have very high statistical relevance. In addition, some of the sensors do not function properly and therefore collect incomplete data, or sometimes none at all. Even so, some values correctly recorded by these sensors indicate very high levels of certain pollutants and thus confirm that residents' health is genuinely at risk. According to the data reported by Romania to the

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[21] Law No. 104/2011, available online at: http://www.calitateaer.ro/export/sites/default/.galleries/Legislation/national/Lege-nr.-104_2011-calitatea-aerului-inconjurator.pdf_2063068895.pdf, pp. 37–38.

[22] See Annexes 1, 2, 3, 4 (source: http://www.mmediu.ro/categorie/calitatea-aerului/56) .

[23] µg/m3 = micrograms per cubic meter.

[24] Government Decision No. 119/2023, available online at: https://legislatie.just.ro/Public/DetaliiDocument/264810

[25] See Annexes 5, 6, 7.

European Environment Agency, approximately 23 thousand Romanians died in 2016 because of pollution, especially PM2.5 and PM10, because these particles penetrate the lungs, deposit on vital organs, and thus the body does not develop properly and there is a risk of chronic diseases occurring from an early age. Therefore, what remains to be done is to identify the measures the municipality plans and carries out in order to improve this situation in Romania's capital.[26] A more recent indication of the persistence of this problem can be found in independent real-time monitoring data. For example, according to a screenshot retrieved from the AerLive platform on 20 March 2026, Sensor 103 in Bucharest recorded a value of 95 $\mu g/m^3$ for PM2.5, classified on the platform as an extremely high level. The same reading was also associated with a PM10 value of 95 $\mu g/m^3$, suggesting a significant short-term deterioration in ambient air quality. Although such platform-based data should be interpreted with caution and cannot replace official long-term validated measurements, they nevertheless provide a useful contemporary snapshot and reinforce the broader argument that air pollution remains a serious and ongoing risk to public health in Bucharest. [27]

Since the main pollutants and, at the same time, the most harmful to the health of people in Bucharest are carbon dioxide as well as PM10 and PM2.5 (dust particles), the solution that seems appropriate in this case would be a significant reduction in the emissions of these gases. Given that the main source of such particles is motor vehicles[28], especially older ones with Non-Euro, Euro 1, 2, or 3 emissions standards[29], on 24 October 2019 the General Council of the Municipality of Bucharest adopted Decision No. 539 on concrete measures to improve air quality in the Municipality of Bucharest. Also known as the "Oxygen Tax" or the "Oxygen Vignette," this measure aimed, in view of the already existing level of pollution in the capital, to gradually reduce the quantity of pollutants present in the breathable air.[30]

More specifically, this decision aimed to impose certain restrictions regarding the access of certain cars to Bucharest, depending on their emissions standard. Therefore, starting on 1 January 2020, the access of vehicles with a maximum mass of less than 5 tons was restricted from Monday to Friday, between 07:00 and 22:00, as follows: (1) electric, hybrid, or Euro 5 and Euro 6 cars face no restrictions; (2)

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[26] European Environment Agency, "The Air We Breathe", available online at: https://www.eea.europa.eu/ro/semnale/semnale-de-mediu-2013/articole/aerul-pe-care-il-respiram,

[27] See Annex 8.

[28] See Aneex 9. It is not a representative indicator, but it represents an interesting one, as the screenshot was taken on Wednesday, 15.04.2026. Because it is still Easter Holiday, a lot of people are out of Bucharest, so the traffic and air quality are Good, according to the National Air Quality Monitoring Network.

[29] European Emissions Standards, available online at: https://www.rac.co.uk/drive/advice/emissions/euro-emissions-standards/

[30] Available online, link: https://doc.pmb.ro/legis/acteinterne/2019/40475/H539_19.pdf

Euro 3 cars are allowed to circulate in Bucharest only after the purchase of an electronic Oxygen vignette; and (3) Non-Euro, Euro 1, and Euro 2 cars are prohibited in the Air Quality Action Zone (ZACA)[31], while on the rest of the city's roads they may circulate only after purchasing the vignette.[32] The decision also states that the sums collected from the Oxygen vignette automatically become revenue of the budget of the Municipality of Bucharest and will be used for projects, works, and investments in environmental protection and urban mobility, with a direct or indirect contribution to improving transport conditions and air quality.[33]

It should be noted, however, that this measure had only a very short life. In February 2020, before the scheme was fully enforced, Mayor Gabriela Firea announced that she would give up the Oxygen Vignette following what she described as a "huge wave of rejection" from Bucharest residents, reflected in an online poll in which, according to her statement, around 90% of respondents opposed the measure. The decision was then formally repealed by the General Council of Bucharest on 23 March 2020, and those who had already paid for the vignette were allowed to recover their money through a refund procedure administered by the city authorities. In my view, this retreat was primarily political rather than environmental or administrative in nature. A restrictive anti-pollution measure aimed directly at drivers was likely perceived as electorally costly, especially in a city where car ownership represents a major constituency.[34] This interpretation appears even more plausible in light of later public data: according to Vice-Mayor Stelian Bujduveanu, Bucharest had more than 1.7 million registered vehicles in 2025, in addition to roughly 300,000 cars entering daily from surrounding counties. In such a context, the withdrawal of the Oxygen Vignette can be read as a politically expedient decision designed to avoid alienating a large and electorally relevant segment of the urban population.[35]

At first glance, such a measure does indeed seemed to represent a viable solution for improving air quality in an overcrowded and polluted city such as Bucharest. The fact that the extensive use of old, highly polluting cars is discouraged and the use of alternative means of transport (electric cars, hybrids, and motorcycles) is encouraged means that this measure takes into account the consequences

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[31] The central area, delimited by Piața Victoriei, Șoseaua Ștefan cel Mare, Șoseaua Panduri, and Splaiul Independenței.

[32] Decision No. 539 of 24.10.2019 of the General Council of the Municipality of Bucharest, available online at: http://acteinterne.pmb.ro/legis/acteinterne/acte_int/afisint.php?f=40475

[33] Ibid., p. 2.

[34] "Oxygen" tax, repealed by the General Council of the Capital, available online at: https://agerpres.ro/administratie/2020/03/23/vinieta-oxigen-abrogata-de-consiliul-general-al-capitalei--472024

[35] "The circulation of three types of vehicles, prohibited in Bucharest between certain hours, is proposed by the mayor: "We have 1.7 million cars in the city", available online at: https://hotnews.ro/circulatia-a-trei-tipuri-de-autovehicule-interzisa-in-bucuresti-intre-anumite-ore-propune-primarul-avem-17-milioane-de-masini-in-oras-2086169

implied by breathing air loaded with polluting particles and therefore also considers the needs and rights of the citizens who will live in Bucharest in the future.

However, even if taxing the use of old vehicles could be effective in easing traffic congestion and, implicitly, in improving air quality[36], it is not at the same time an incentive for citizens to purchase an electric/hybrid car. Thus, the Environmental Fund Administration runs two national programmes, "Rabla" and "Rabla Plus," aimed at encouraging citizens to give up old cars in order to purchase new, much less polluting vehicles. I will focus here on the second programme, "Rabla Plus," because through it citizens could have received from the Ministry of the Environment a voucher (eco-ticket) worth 45,000 lei for the purchase of a new fully electric vehicle. In the case of hybrid vehicles generating CO2 emissions of less than 50 g/km, the amount offered by the Ministry is 20,000, according to the data available a few years ago.[37] In this respect, the Romanian Environmental Fund Administration (AFM) continues to support this transition through the Rabla Autovehicule 2025–2030 programme, which remains operational under an updated framework. Under the 2025 scheme, the level of public support differs according to the type of vehicle purchased: 10,000 lei for a new vehicle with an internal combustion engine, 12,000 lei for a hybrid vehicle, 15,000 lei for a plug-in hybrid vehicle, and 37,000 lei for a fully electric vehicle or a hydrogen fuel-cell vehicle. These updated amounts show that financial support for cleaner mobility still exists, although the current incentives differ from the older structure of the Rabla and Rabla Plus programmes. From the perspective of intergenerational justice, such measures remain relevant insofar as they seek to reduce pollution and improve environmental conditions for future generations.[38] Thus, from the point of view of the intergenerational dimension, I observe that both the Romanian state, through policies such as the "Rabla" programmes, and the Municipality of Bucharest, through the Oxygen Tax, take into account the quality of life of future citizens when it comes to breathing as clean air as possible in a European capital. As for the non-governmental sector, in Romania the Association for Electromobility was established to offer support, both online and at organized events, to those who wish to purchase, as well as to those who already own, an electric vehicle.[39]

Last but not least, I would like to mention the "#RomaniaBreathes" campaign through which Airly and Philips Romania implemented the country's first independent air-quality monitoring network. Because, as I also mentioned earlier

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[36] Amount of the taxes: Non-Euro – 1900 lei/year; Euro 1: 1700 lei/year; Euro 2: 1500 lei/year; Euro 3: 700 lei/year; Euro 4: 500 lei/year, according to http://www.zaca.ro/, accessed on 17.02.2020 at 20:10.

[37] Environmental Fund Administration, "Rabla Plus", available online at: https://www.afm.ro/vehicule_electrice.php

[38] Rabla auto 2025 – Ghidul de finanțare trimis la Monitorul Oficial, available online at: https://mmediu.ro/comunicare/comunicate-de-presa/rabla-auto-2025-ghidul-de-finantare-trimis-la-monitorul-oficial/

[39] Available online at: https://www.aero.org.ro/acasa

in this paper, some of the sensors installed in Bucharest do not provide complete/ accurate data, this independent monitoring network aims to install, with the help of received donations, a total of 400 new high-performance sensors in order to obtain as accurate field results as possible.[40]

Conclusions

This article set out to examine whether, and to what extent, Romanian legislation and public policies on air quality reflect the principles of intergenerational justice, with particular reference to the preservation of the "clean air" resource in Bucharest. The analysis combined a normative discussion of distributive and intergenerational justice with a qualitative examination of European and Romanian legal frameworks, policy measures, and publicly available air-quality data. The central finding is that, at the formal and normative level, both the European Union and Romania have developed increasingly ambitious legal and policy instruments aimed at protecting air quality and reducing pollution. However, the practical effectiveness and continuity of these measures remain uneven, especially at the local level.From a theoretical perspective, the paper has shown that the issue of air pollution can be meaningfully interpreted through the lens of intergenerational justice. Drawing on Rawls, Dworkin, Shue, Broome, and Mazor, the article argues that clean air should not be treated merely as an environmental policy issue, but as a distributive and moral one, since present-day patterns of pollution affect both currently vulnerable groups and those who will inhabit the city in the future. In this sense, preserving air quality becomes part of a broader obligation not to transfer environmental and health costs to future generations.

The empirical and legal analysis confirms that this normative logic is increasingly visible in European policy. The 8th Environment Action Programme and Directive (EU) 2024/2881 demonstrate a clearer and more demanding regulatory orientation, linking air quality to the EU's zero-pollution ambition, stronger monitoring obligations, improved public information, and stricter standards from 2030, including substantially reduced limit values for PM2.5 and NO_2. These developments are important because they show that, at the European level, air quality is no longer treated as a secondary technical issue, but as a central component of public health protection, environmental sustainability, and long-term resilience. In the Romanian case, the findings are more mixed. On the one hand, the article shows that Romania does possess a legislative and institutional framework for addressing air pollution, including Law No. 104/2011, national monitoring systems, and financial incentive schemes such as the Rabla programmes, now continued through the Rabla Autovehicule 2025–2030 framework. These measures indicate that the state formally recognizes the need to reduce emissions and encourage

[40] Available online at: https://www.romaniarespira.ro/

cleaner mobility. On the other hand, the analysis also highlights important limitations: deficiencies in monitoring practices, incomplete or uneven implementation, and a gap between declared objectives and political willingness to sustain restrictive but potentially effective measures.

This gap is particularly visible in the Bucharest case. The city continues to record worrying levels of particulate pollution, as shown both by earlier official assessments and by more recent independent monitoring snapshots. At the same time, the most visible local anti-pollution measure discussed in this article, the Oxygen Vignette, was rapidly repealed shortly after adoption, despite its potential to discourage the circulation of highly polluting vehicles. The article argues that this reversal should be read not only as a policy failure, but also as evidence of the political fragility of environmental measures that impose visible costs on large electoral groups. In a city with an extremely high number of registered vehicles, this suggests that intergenerational considerations remain vulnerable when they conflict with immediate political incentives. The answer to the research question is therefore nuanced. Romanian legislation and public policy do reflect, to a certain extent, principles of intergenerational justice, particularly at the level of declared objectives, regulatory design, and incentive structures. Nevertheless, these principles are only partially translated into stable and effective practice. The article thus finds a significant discrepancy between normative commitment and political implementation. Put differently, intergenerational justice is present in Romanian air-quality governance more as a legislative and discursive orientation than as a consistently enforced public policy reality.

The contribution of this article is threefold. First, it brings together political theory and environmental policy analysis in order to interpret air pollution as a problem of justice between generations, not merely one of regulation or public administration. Second, it updates the discussion of Romanian air-quality governance by incorporating recent European developments, especially Directive (EU) 2024/2881, as well as newer local evidence and policy changes. Third, it shows that the Bucharest case illustrates a broader tension relevant beyond Romania: the tension between long-term environmental obligations and short-term political rationality. For this reason, the article suggests that the protection of clean air for future generations depends not only on better legislation, but also on sustained political commitment, credible monitoring, and the institutional capacity to maintain unpopular but necessary measures over time.

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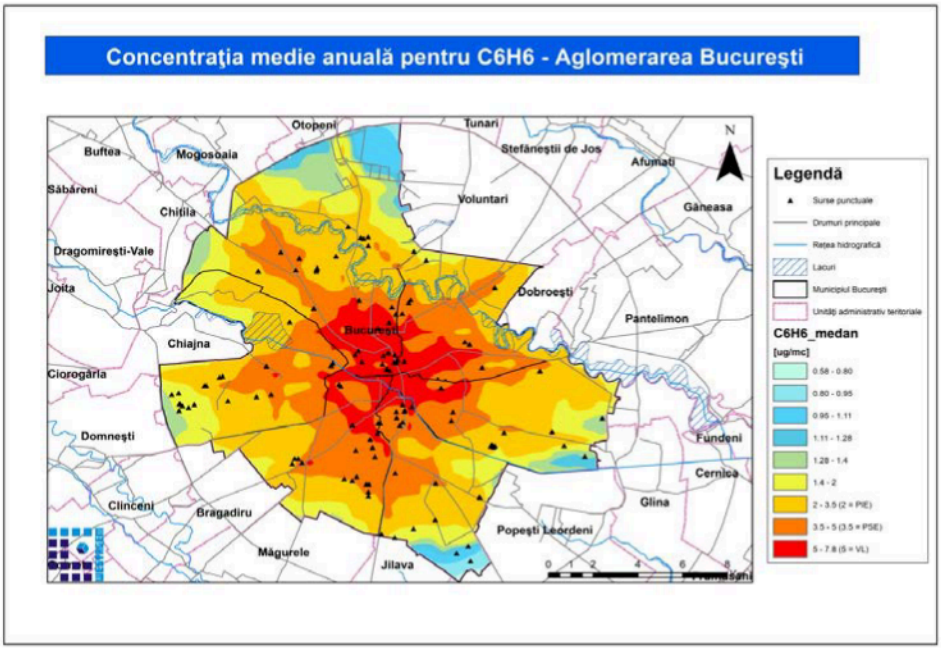
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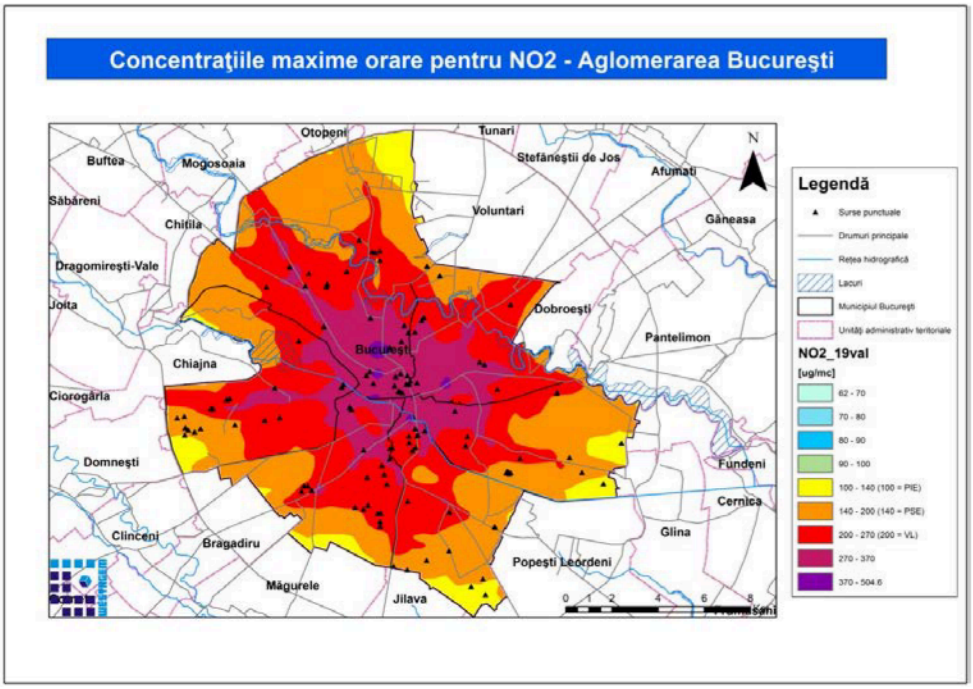
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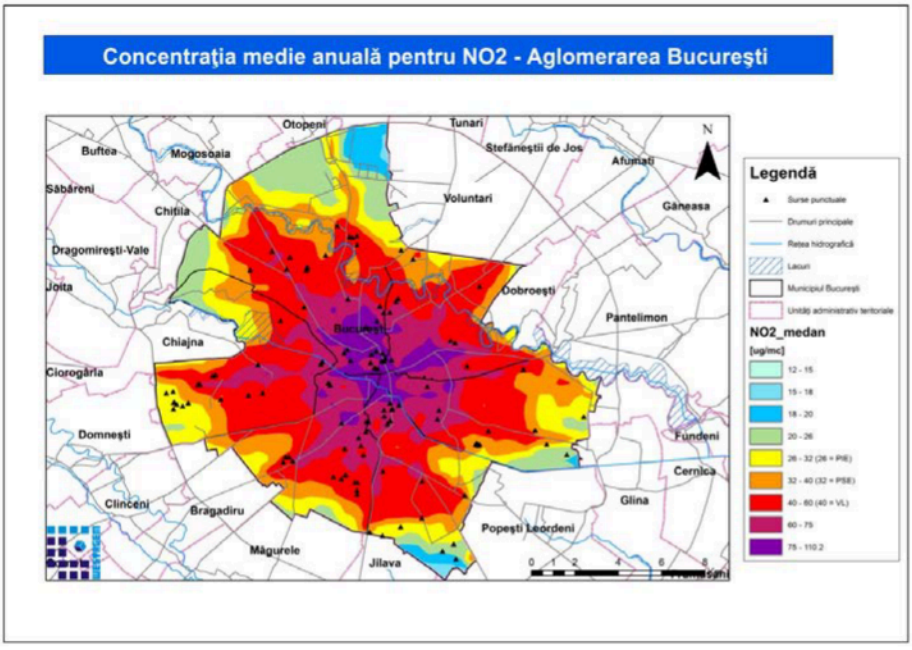
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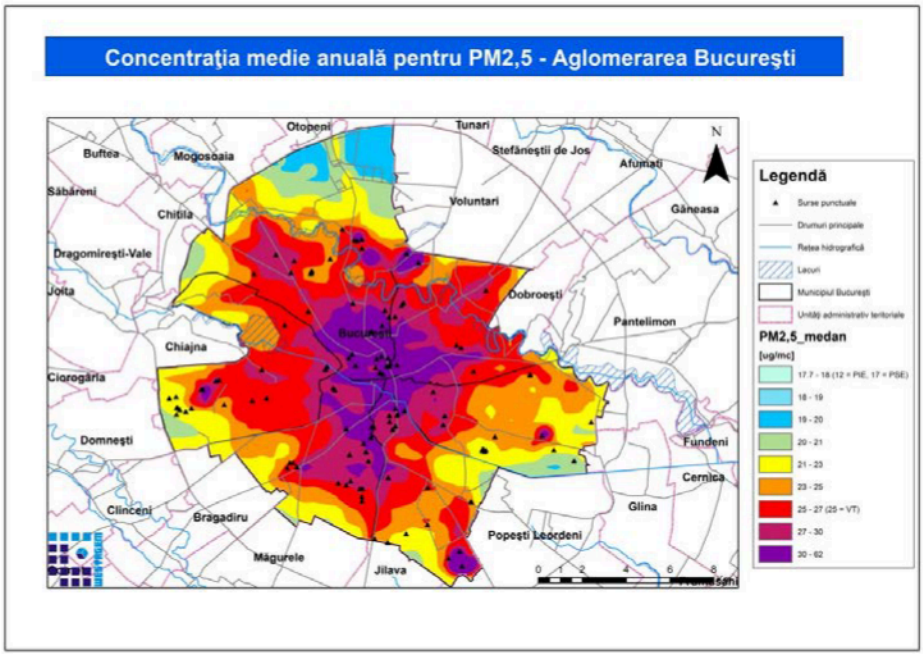
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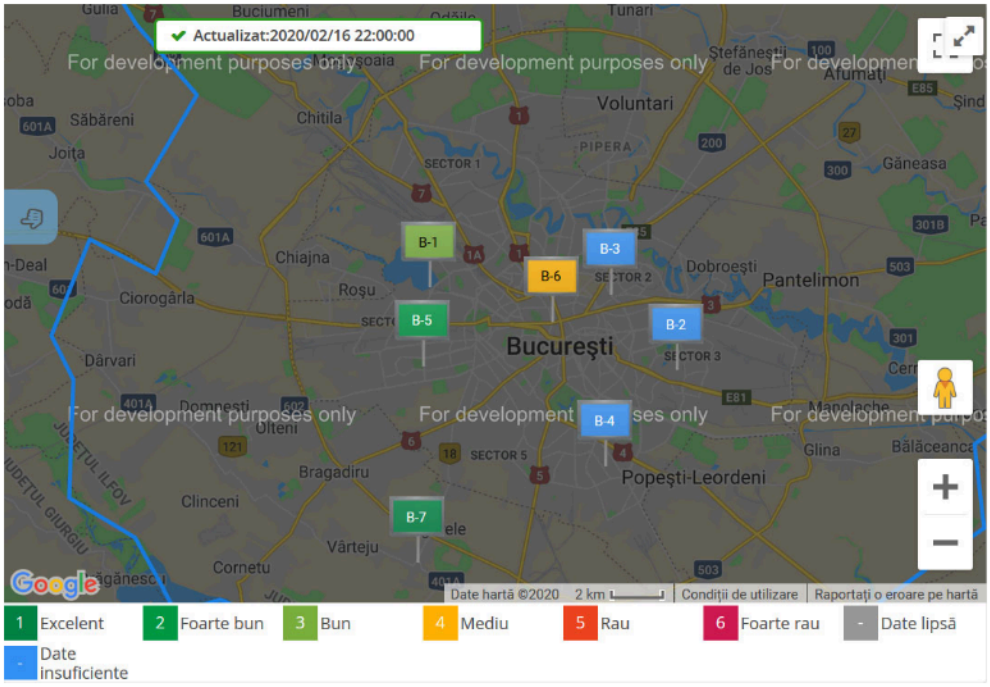
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Annex 6

B-6

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Latitudine 44.44 Longitudine 26.10 Altitudine 79.00



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Annex 7

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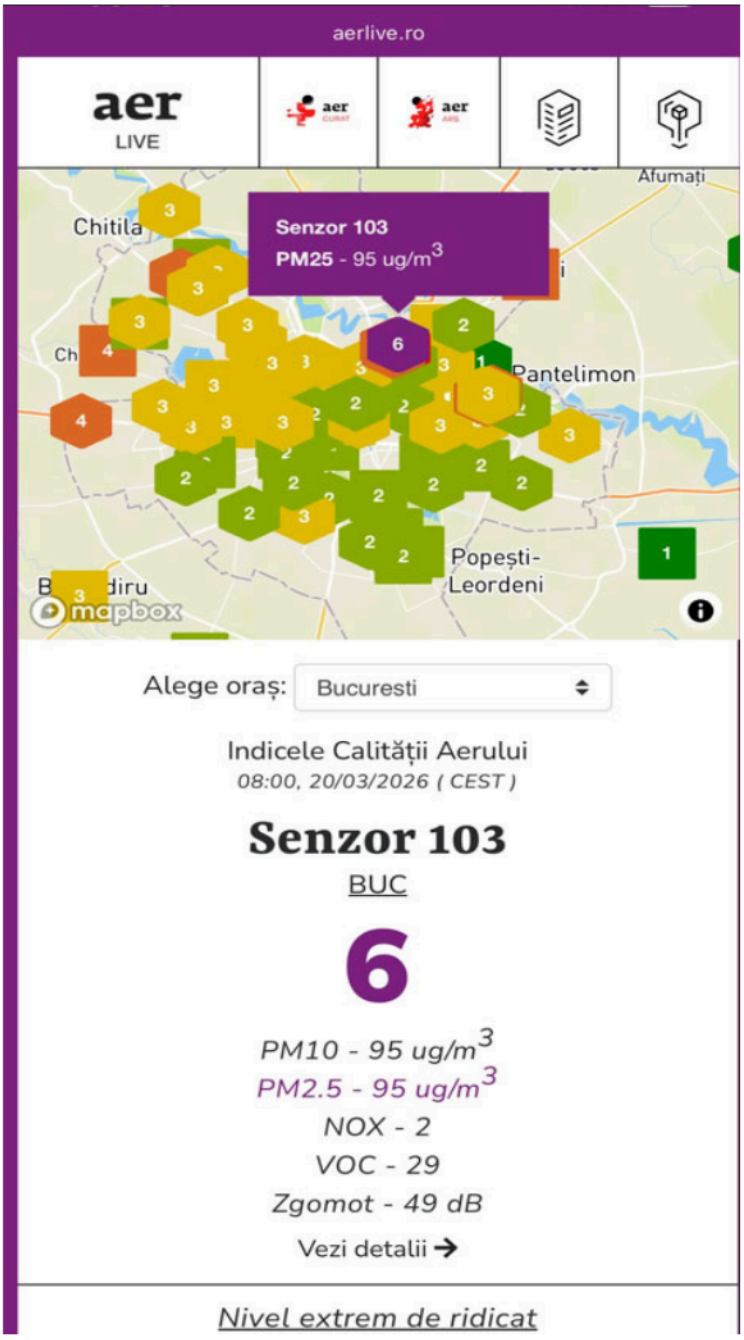
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Indice general de ieri 5

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PM 10	4 36.52µg/m³ 2020/02/16 22:00:00	4 47.66µg/m³	5 66.73µg/m³
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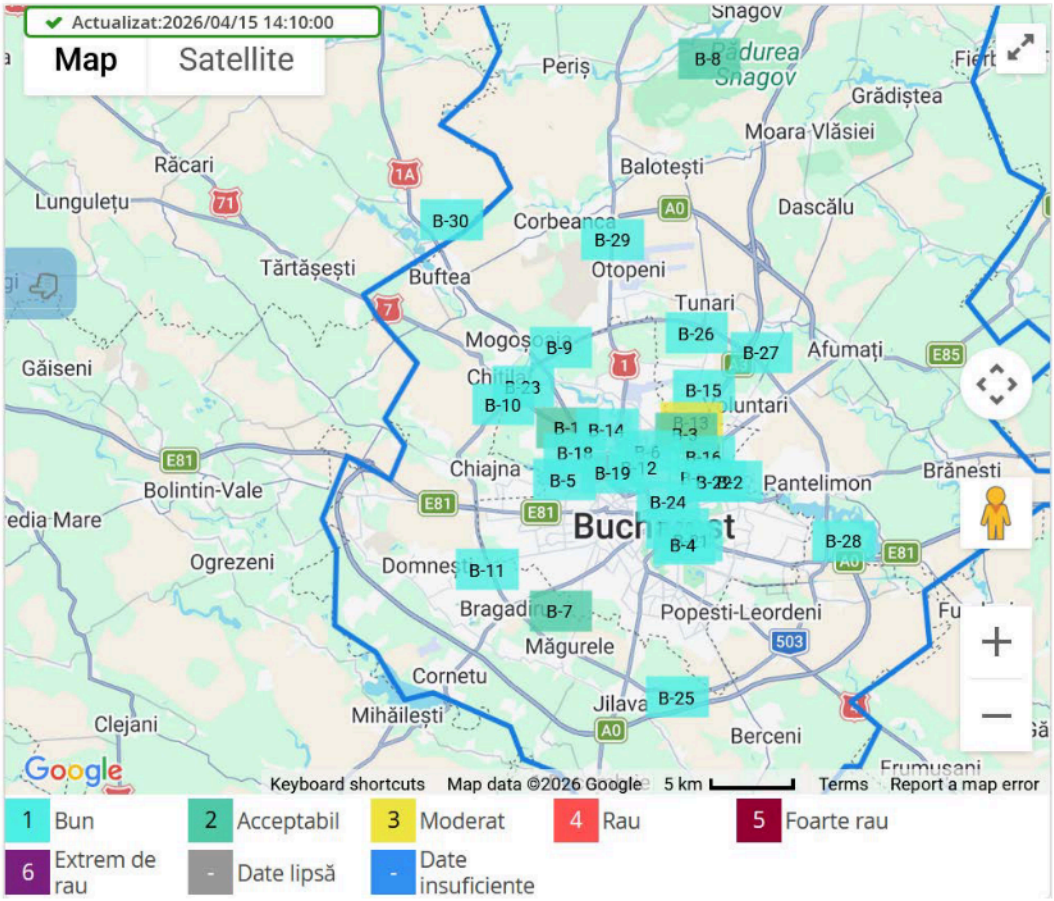
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Annex 8



Source: https://aerlive.ro/

Annex 9



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