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Green City Action Plan for the Municipality of Bucharest Policy and Urban Framework Report

February 2024

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In association with: Stratos

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List of Abbreviations

AFR	Agency for Fundamental Rights
AID	Associations for Intercommunity Development
AIDPTBI	AID for Public Transportation in Bucharest – Ilfov
ATU	Administrative Territorial Unit
BAU	Business as usual
BIR	Bucharest-Ilfov Region
(B)ISUD	(Bucharest) Integrated Strategy for Urban Development
DSO	Distribution System Operator
EBRD	European Bank for Reconstruction and Development
EGO	Emergency Government Ordinance
EU	European Union
GCAP	Green City Action Plan
GCBM	General Council of the Bucharest Municipality
GD	Governmental Decision
GEO	Government Emergency Ordinance
GHG	Greenhouse Gas
GM	General Mayor
GP	General Practitioner
GUP	General Urban Plan
INECCP	Integrated National Energy and Climate Change Plan 2021-2030
LEPA	Local Environmental Protection Agency
LPA	Local Public Authorities/Administration
MS	Member State
MEWF	Ministry of Environment, Water and Forests
MO	Ministerial Order
NDC	Nationally Determined Contribution
NPA	Natural Protected Areas
NRRP	National Recovery and Resilience Plan
PPP	Public-private partnership
RES	Renewable Energy Source

RON	Romanian currency New Leu
SCP	Standalone Credit Profile
SDG	Sustainable Development Goals
SSF	Shareholder Special Fund
TP	Temporary Protection
TSO	Transmission System Operator
UNFCCC	United Nations Framework Convention for Climate Change

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Executive Summary

This report presents an analysis of the baseline situation in Bucharest with respect to the urban, climate and environmental policy framework, the financial performance of the city, the division of power and authority within the city, as well as an assessment of the social and economic conditions and of gender and vulnerable population in the city. The analysis has been conducted following Step 2.1.A of the Green Cities Action Plan (GCAP) Methodology of the EBRD Green Cities programme, as of January 2022.¹ Hence, the analysis comprises international, national and local contexts with regard to the political, legal and financial conditions and policies, as well as emerging issues and policies related to urban environment and resilience that may affect the GCAP for Bucharest. In line with the EBRD Green Cities Methodology, the following steps have been performed:

- (i) Policy mapping with respect to past, current and future/proposed policies, studies, initiatives and plans;
- (ii) Assessment of the Nationally Determined Contribution;
- (iii) Analysis of the jurisdictions and authority over specific environmental or infrastructure sectors;
- (iv) Analysis of the financial situation of the municipal budget;
- (v) Assessment of the social and economic conditions of the city;
- (vi) Assessment of the gender and vulnerable population representation and participation in the development of the city.

Bucharest is the capital of Romania, with a surface area of 240 km², surrounded by Ilfov County. The Municipality of Bucharest is part of the so-called Bucharest-Ilfov Development Region which includes the County of Ilfov. This is an area of 1,804 km² and it has 2,284,443 inhabitants, with a daily transit estimated at 3,000,000 inhabitants. The Municipality of Bucharest is designated as an urban agglomeration, the metropolitan area having an additional 480,000 inhabitants, with numerous socio-economic and environmental connections and interdependencies with its neighbouring localities. The climate in Bucharest is temperate continental with four seasons: winter, spring, summer and autumn. In the last decades, winters in Bucharest have been rather mild, with little snow and relatively high temperatures, while the summers of the recent years have been very hot, with temperatures reaching even 40°C and little rainfall. Rainfall is around 500-600 mm annually. The urban area is largely exposed to wind, heat and cold waves. The city has potential for solar power generation but the potential of this energy source around Bucharest must, however, account for the industrial and/or agricultural development of the available land and of the protected areas.

The technical analysis of the existing policy framework at city level has shown that Bucharest's most problematic domains/sectors that need urgent attention are the open green spaces and climate change adaptation for which the policy framework is non-existent. Next, air quality, soil, biodiversity, water use and climate change mitigation benefit from some dedicated policies at local level, but their implementation is flawed. Moreover, dedicated local strategies are needed for all of these sectors. Finally, the best performing environmental area in Bucharest, receiving the green colour in the traffic-lights coding, is the water bodies and drinking water. For this area a policy framework exists, which is also satisfactory implemented.

With regard the competencies of the city and its relation to the six districts, it can be ascertained that the local councils of the districts do exercise, partially, the same responsibilities as those of the GCBM, albeit limited within their administrative competencies. However, there are overlaps or gaps with regards to the specific competencies of the local councils of the districts. Therefore, a cooperation in promoting development strategies at Bucharest Municipality level is a must.

In parallel to the local public administration authorities of Bucharest Municipality and its six districts, several Associations for Intercommunity Development (AID) for certain areas and domains have been established, exercising specific responsibilities delegated either by the Bucharest Municipality and/or by the six districts, jointly with other authorities. Hence, AIDs have been established for domains such as the Bucharest Metropolitan Area, public transportation, waste management, water supply & wastewater treatment and district heating. However, the modality of delegating the responsibilities

¹ https://www.ebrdgreencities.com/assets/Uploads/PDF/GCAP_2-1_Methodology_January2022.pdf

from the City and / or the six districts to the AIDs, as well as the limit of exercising such responsibilities, is different for each AID.

GHG inventory data pertaining to various aspects such as economic performance, energy, land use, solid waste, and water, among others, specific to Bucharest, is currently unavailable. Therefore, in order to determine city's contribution to the EU-level NDC of Romania, an extrapolation methodology has been used for the purpose of determining the potential contribution of the GCAP sectors to city's contribution to the EU-level NDC. Based on the extrapolation, in the business-as-usual scenario, the main source of emissions in Bucharest is the energy sector, with a contribution of 84% in 2017 in total emissions, followed by the solid waste sector and the water sector, with 3% and 2% respectively in 2017. Based on the same extrapolation methodology, the energy sector, buildings sector and solid waste sector of Bucharest had the highest contribution to the EU-level NDC of Romania in 2020.

In order to improve on data collection regarding GHG emissions in the city and to properly measure the progress towards the reduction targets, the monitoring method and the monitoring sources should be pre-established and regulated, without being changed or altered during the monitoring period. Furthermore, emission inventory reports from all source owners should be verified and validated as accurately and completely as possible, with respect to source coordinates, source characteristics, mass balance, flow rates, units of measurement against conversion formula, reference years etc., with annual continuity to ensure data quality for the whole process.

From the financial point of view, Bucharest has shown signs of improved financial health since 2018. Nevertheless, local taxes have played a significant role since 2018 in assuring the revenue of the city of Bucharest, amounting to 60% in 2018 and 42% of the total revenue in 2023. This suggests that taxes on income, profit, and capital gains from individuals consistently played a major role in the Municipality's income. Revenue from other sources than taxes has also increased in 2023 compared to 2018, which suggests that the Municipality diversified its income streams beyond taxation. However, income from capital is relatively small compared to other revenue sources, but the revenues from financial operations have increased considerably in the past two years. Subsidies from the national budget suggest that external financial support continued to be an essential part of the Municipality's budget. A growing reliance on EU funding has also been recorded, starting from a negligible share of 0.4% in total revenue in 2018 and reaching 8% in 2023, at a steady increase. Expenditures for the day-to-day operational costs and routine expenses have consistently represented the largest portion of total expenditures. It started at 77% in 2018 and gradually increased to 88% in 2021 before settling at 78% in 2023. Capital expenditure showed variations but increased notably in 2023 when major infrastructure investments have started, among which, notably is the rehabilitation of the city's heating and water supply systems. The expenditures associated to loans and external payments have fluctuated but displayed a noticeable increase in recent years, indicating that financial activities have become a more significant part of the Municipality's expenses. The allocation for NRRP projects was included in the municipal budget only in 2023, with a share of 0.4%.

Regarding funds allocated for green and climate initiatives at the City level, these remain scarce and there is a lack of detailed information regarding the current implementation strategies and allocation methods in this area. In fact, the World Bank has reported that despite substantial budgets at both the city and sector municipality levels, funds have often been allocated to projects with limited impact on the city's growth, such as entertainment, while infrastructure investments remained low. In the 2007-2015 period, it was estimated that Bucharest could have spent over 750 million EUR more for infrastructure investments than it actually did.

Demographically, Bucharest displays the characteristics of a large city which predominates over the remainder of its region in terms of social and economic trends, as the City's importance and influence transcend the borders of the Municipality of Bucharest. Many of the existing strategies and plans designed for Bucharest take social inclusion into account to a satisfactory degree, but the depth and breadth of this inclusion can be improved in future documents or revisions of the existing ones. One reason for overlooking social inclusion consists in the fact that the relative wealth of the city skews the perception away from the socially excluded who nevertheless require support measures. Moreover, one difficulty resides in the identification and quantification of the social pressures on the vulnerable groups such as the Roma minority or the homeless.

Although the most dynamic and richest city of the country, Bucharest exhibits sizeable inequalities and social exclusion. Various minority categories are economically, socially and even culturally vulnerable, with problematic access to public infrastructure such as transportation, nurseries, kindergartens, schools, health system etc. In this context, a perspective that substantially integrates aspects of equity, diversity and inclusion in the design of GCAP is vital if the plan aims to put people at the centre and ensure ownership of the plan by the city's inhabitants. In order to do so it is fundamental to collect and perform analysis on disaggregated data that look at gender, age, sexual orientation, ethnicity, religion, social class, etc., both when the plan is designed and when it is evaluated and monitored.

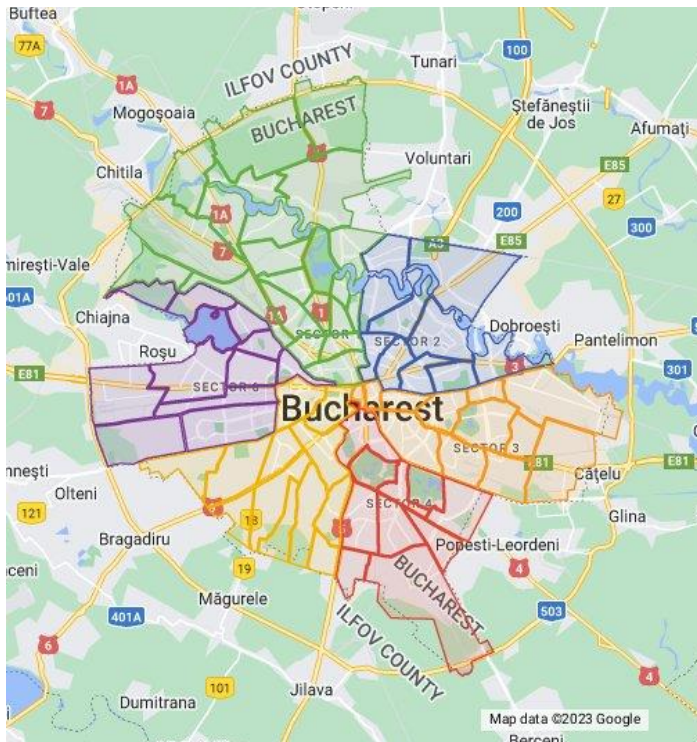
1 Geographic context of Bucharest

Bucharest is the capital of Romania, a European Union (EU) Member State (MS) since 2007. Bucharest is the most populated city and the largest economic centre of the country, with an administrative level similar to that of the 41 counties in which Romania is divided. Bucharest is divided in 6 administrative sectors with their own political and administrative leaderships. On top of the 6 sectors there is the municipal administration consisting of the Mayor and the City's council politically elected by the residents of the city.

The surface area of Bucharest is 240 km², with a built-up area of over 70%. It is surrounded by Ilfov County, with which it forms one of the 8 Development Regions, the so-called Bucharest-Ilfov Development Region or shortly, Bucharest-Ilfov Region (BIR). This is an area of 1,804 km² and it has 2,284,443 inhabitants, with a daily transit estimated at 3,000,000 inhabitants. The Municipality of Bucharest is designated as an urban agglomeration, the metropolitan area having an additional 480,000 inhabitants, with numerous socio-economic and environmental connections and interdependencies with its neighbouring localities. The regions around Bucharest have transformed from predominantly rural to predominantly suburban since the 2000s, and this trend is continuing today.

Bucharest is located in the south-east of Romania, in the Vlăsiei Plain, which is part of the Romanian Plain. To the East lies the Bărăgan Plain, to the West the Găvanu-Burdea Plain, and to the South, the city is bordered by the Burnaz Plain. The seven hills of Bucharest on which the city is built are the result of the fluvial erosion of the two main water courses that cross it, i.e., Dâmbovița River and Colentina River. The altitude varies from 57.1 m in the area of the Cățelu highway bridge, in the south-eastern part of the city, to about 93 m in Bucureștii Noi – Mogoșoaia in the north-western part. Bucharest is surrounded by 9 areas designated as forests and there are initiatives to maintain and / or extend them in order to establish the "Green Belt" of Bucharest. It is more than 100 km from the mountainous area, 60 km North from the nearest county capital city – Ploiesti and 500 km North-West from the country's second largest city, Cluj-Napoca. Figure 1-1 shows the map of Bucharest with its 6 sectors and its position within the country.

Figure 1-1: Bucharest map with the 6 sectors and the surroundings



Source: Google Maps and <https://maps-bucharest.com/bucharest-on-map>

There are proposals for the resumption of the Bucharest-Danube navigable corridor, a project initiated more than 30 years ago. This is possible because Bucharest is situated on the banks of the Dâmbovița River, which flows into the Argeș river, which in turn is a tributary of the Danube. Several lakes, the most important of which are Herăstrău, Floreasca, Tei and Colentina, stretch in the northern parts of the city along the Colentina, a tributary of the Dâmbovița River. In addition, in the 4th district of the City there is an anthropic lake with an area of 189 ha, initially set up as a part of the Dâmbovița River development system, but reclaimed by nature after more than 30 years of neglect. Hence, it has become the first urban natural park in Romania and the first protected natural area in Bucharest. Finally, in the centre of the capital there is a small artificial lake, the Cișmigiu lake, surrounded by the park with the same name.

The climate in Bucharest is typical of Romania, i.e., temperate continental. There are four seasons: winter, spring, summer and autumn. In the last two decades, winters in Bucharest have been rather mild, with little snow and relatively high temperatures, while in recent years summers have been very hot, even scorching, with temperatures reaching even 40°C and little rainfall.² This makes winter-summer temperature differences of up to 50 degrees. The coldest month is January, with an average of -2.9°C, and the warmest is July, with an average of 22.8°C.

The urban heat island effect is observed extensively across the urban landscape, with a distinct urban bell-chimney phenomenon manifesting itself vertically and exhibiting heights three to four times that of the buildings (ranging from 150 to 200 meters). This results in elevated thermal readings in the city centre, registering temperatures 2-3°C higher than those documented at the city's periphery. The global solar radiation is 125,39 kcal/cm² on the horizontal surface, the maximum value being recorded, in general, in the month in July and the minimum in the month of December. This is an important environmental feature of Bucharest that will be covered more in depth in the Environmental Baseline report and further taken into account in the formulation of the measures/actions in the GCAP.

Rainfall is around 500-600 mm annually. However, there are some differences between the centre (550-600 mm/year) and the peripheral areas (500 mm/year). The peripheral area is influenced by low buildings of 1-2 storeys, with nearby green areas and large industrial areas. This urban area is largely exposed to wind, heat and cold waves, but with low contrasts, high humidity and clean air, though the upward trend of suburban development is about to change this element.

Under the effect of the increasing impact of thermal pollution and the increase of horizontal and vertical built-up areas, in the hot season there is a tendency for humidity to decrease. The dominant winds in the north-east sector with a frequency of 22.8% and an average speed of 3.0 m/s, and in the south-west sector with a frequency of 14.9% and an average speed of 3.0 m/s determine the atmospheric dynamics, with the east and west sectors having frequencies of 14.5% and 2.5 m/s. Atmospheric calms occurring at wind speeds below 1.5 m/s can reach annual average frequencies of more than 10%, which generates the accumulation of noxious gases around emission sources.

Given the summer temperatures and solar radiation, there is potential for solar power generation in Bucharest. In fact, some housing associations are already using this method to reduce energy costs, and flat roofs of old blocks of flats can be converted to allow the installation of photovoltaic systems. An assessment of the potential of this energy source around Bucharest must, however, account for the industrial and/or agricultural development of the available land and of the protected areas. As for the hydrographic potential, this has already reached its limits. Further developments can only occur by making the energy production and distribution systems more efficient. As for the wind potential, although the surrounding hills could offer a starting point, the air traffic and the socio-economic development of the area do not recommend the implementation of such projects.

2

https://www.meteoblue.com/ro/vreme/historyclimate/weatherarchive/bucure%C8%99ti_rom%C3%A2nia_683506?fcstlength=1m&year=2023&month=7

2 Policy Mapping

This section discusses the existing policy framework governing the environmental areas that are affected by the sectors of GCAP. The conclusions of the environmental performance of the policy framework are presented in Annex A using the traffic-light coding.

2.1 Air quality

Local level. According to the national legislation, described in the section below, municipalities are required to adopt an integrated plan for air quality, and a plan for maintaining of air quality, abiding certain requirements.

1. **Integrated Plan for Air Quality for Bucharest Municipality (2018 – 2022)** and annual reports on the implementation (2018, 2019, 2020, 2021 and 2022); **a new Integrated Plan for Air Quality for Bucharest Municipality needs to be adopted;**
2. **Plan for Maintaining of Air Quality for Bucharest Municipality (2018 – 2022)** and annual reports on the implementation (2018, 2019, 2020, 2021 and 2022); **a new Plan for Maintaining of Air Quality for Bucharest Municipality needs to be adopted.**

According to the annual reports on the implementation for the 2 Plans, the status of implementation did not achieve 100% for all the measures included in the plans.

Following the approval and publication in the Official Journal of Romania (Off.J.) of the MO no. 685/2023, Ministry of Environment, Water and Forests (MoEWM) informed³ the GMBM on the following classification of the air quality regimes, as follows:1. For the indicators: NO₂ and NO_x, PM_{2.5} and PM₁₀ it is necessary to prepare the Integrated Plan for Air Quality (IPAQ);2. For the indicators: SO₂, CO, C₆H₆, Pb, As, Cd and Ni it is necessary to prepare the Plan for Maintaining the Air Quality (PMAQ). *Additionally, EU referred Romania to the European Court of Justice for failing to implement Air Quality Directive 2008/50/CE, Articles 13 (1) & Annex XI and 23(1) & Annex XV – PM10, for Bucharest Municipality. Romania has been condemned by the Court in Case C-638/18.* This is an important piece of information to be accounted for in the formulation of the GCAP actions and measures.

National level. Law no. 104/2011 on the air quality represents the framework law on the air quality, establishing objectives and measures at national and local level. The Law transposes, at national level, the provisions of the Directive 2008/50/CE on ambient air quality and cleaner air for European and of Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air, aiming at achieving at national and local level the following objectives (Article 1):

- Defining and establishing objectives for ambient air quality intended to avoid, prevent or reduce any harmful events, and to reduce their effects on the human health and environment as a whole;
- Assessing the air quality on the entire national territory, using common methods and criteria, established at European level;
- Obtaining information on air quality to help combating the air pollution process and its associated discomfort, and to monitor of the long-term tendencies and improvements resulting from the measures taken at national and European level;
- Guaranteeing the fact that the information on air quality is made publicly accessible;
- Maintaining air quality where this is good, and improving it in other cases;
- Promoting enhanced cooperation with other Member States in reducing air pollution;
- Meeting all commitments and obligations deriving from the international agreements, conventions and treaties to which Romania is a Party.

Law no. 104/2011 is supplemented by **Governmental Decision (GD) no. 257/2015** approving the Methodology on the preparation of plans for air quality, plans for short-term actions and plans for maintaining the air quality.

³ <https://www.pmb.ro/interes-public/arhiva/get-public-interest-announcements/2023/237>

According to the Law no. 104/2011, an air quality plan is a plan which contains measures for reaching the limit-values or their target values, except for the case where the costs are disproportionately significant. Zones and agglomerations throughout Romanian territory have been established, while air quality assessment and air quality management is to be carried out in all zones and agglomerations. The classification in assessment regimes is to be reviewed every 5 years.

As per the Law (Article 25), the assessment of the following pollutants: SO₂, NO₂, NO_x, PM₁₀ and PM_{2.5}, Pb, C₆H₆, CO, As, Cd, Ni, BaP, for each zone and agglomeration areas are to be delimited, categorized as follows:

- Assessment regime type A – where the level is exceeding the superior assessment threshold;
- Assessment regime type B – where the level is below the superior assessment threshold, but exceeding the inferior assessment threshold;
- Assessment regime type C – where the level is below the inferior assessment threshold.

Article 42 of the Law no. 104/2011 establishes 2 types of management areas for air quality, as follows:

- Management area type I – those areas in zones and agglomerations where the levels for SO₂, NO₂, NO_x, PM₁₀ and PM_{2.5}, Pb, C₆H₆, CO are higher or equal to the limit-values adding tolerance margin, where applicable, as per the Law (letter B and position G.5 of Annex 3) and for As, Cd, Ni, BaP, Hg and PM_{2.5} are higher than the target-values established by the Law (letter C and position G.4 of Annex 3), respectively;
- Management area type II – those areas in zones and agglomerations where the levels for SO₂, NO₂, NO_x, PM₁₀ and PM_{2.5}, Pb, C₆H₆, CO are below the limit-values, as established by the Law (let. B and position G.5 of Annex 3) and for As, Cd, Ni, BaP, Hg and PM_{2.5} are below the target-values established by the Law (let. C and position G.4 of Annex 3)

There are 3 types of air quality-related plans, as follows:

1. Plans for the (ambient) air quality (Air quality plans) = prepared for the areas in zones and agglomerations classified as management area type I, aiming at reaching the corresponding limit-values or target-values, respectively;
2. Plans for maintaining the air quality = prepared for the areas in zones and agglomerations classified as management area type II;
3. Action plan for short-term = in the situation where, in a specific area or agglomeration, there is a risk of exceeding the alert thresholds (let. E of Annex 3), action plans for short term are to be prepared, with measures to reduce the risk or the duration of the exceedance. Also, in the situation where, in a specific area or agglomeration, there is a risk that the pollutants` levels would exceed one or more limit-values and / or target values as established by the Law (positions B.2, G.4 and G.5 of Annex 3), action plans for short terms may be prepared, where the case may be.

Similarly, where there is a risk for exceeding the alert threshold for O₃, as established by the Law (position E.2 of Annex 3), action plans for short term should be prepared only when it is considered that there is a significant potentiation for reducing the risk, the duration or severity of the exceedance, taking into due consideration the national geographical, meteorological and economic circumstances.

The pollutants for which plans, and limit-values / target values are necessary are established by the Law no. 104/ 2011, more specifically Annexes 1 and 3 (SO₂, NO₂, NO_x, PM₁₀ and PM_{2.5}, Pb, C₆H₆, CO, O₃, As, Cd, Ni, BaP, Hg).

At local level, according to the Law, the mayors held the following responsibilities (Article 22):

- Ensure the implementation of the Law within their limits of competence;
- Integrate the requirements of this Law, and other relevant legislation, into the local sustainable development strategy;
- Ensure the elaboration of the local air quality plans which are to be approved by the Local Council within 30 days since their endorsement by the local environmental protection agency;

- Participate to the process of the elaboration of the air quality maintaining plans, and ensure the implementation of the measures therein;
- Participate to the preparation of the short-term action plan and ensure the implementation of the measures therein, for the case where the activities having a risk of exceeding the alert and / or information thresholds are in the responsibility of the local public administration;
- Submit, yearly, to the local environmental protection agency (LEPA) the status report on implementing the measures established in the air quality plan;
- Provide to LEPAs the necessary information and documentation for assessing and managing the ambient air quality;
- Implement the measures from the air quality maintaining plans and / or the air quality plans and / or measures and actions from short-term plans, which are under their competence, and provide necessary financial resources for this purpose;
- Include the fixed measuring stations and the corresponding protection area in the urban plans;
- Delimitate, through warning signs, the protection area for the fixed measuring stations;
- Upon the request from the central public authority for environmental protection, take all necessary measure to place the fixed measuring stations and indicative measuring points, so as to ensure that the positioning and distribution would correspond to the requirements established by the Law.

Specificities regarding Bucharest Municipality read as follows:

- The General Council of Bucharest Municipality, as well as the district councils are part of the National System for Assessment and Integrated Management of Air Quality (NSAIMAQ / SNEGICA (Romanian));
- The General Council of Bucharest Municipality, in general, has the same attributes and responsibilities as the county councils, whereas the District Councils have the same attributes and responsibilities as the local councils;
- The institution of the Prefect – ensures, at county level and of the Bucharest municipality, the implementation and enforcement of the Law, and coordinates the elaboration and implementation of the plans for maintaining the air quality and the air quality plans, prepared for several neighbouring administrative-territorial units;
- The County council, through its special body, and the General Council for Bucharest Municipality, through the General Mayorship of Bucharest Municipality, following the proposal of the District Mayorships, elaborate the plans for maintaining the air quality (AQ), and approve them consequently, after being endorsed by the local EPA; and implement the measures established through the plans for maintaining the AQ and the AQ plans and / or measures and actions established by the short-term action plan, providing the necessary financial resources to this purpose.
- AQ Plans may be elaborated for several administrative territorial units (ATU), districts of Bucharest or parts of them, and are approved through local council decision or district local councils, for Bucharest, respectively. For the case where the AQ plan is prepared for 2 or more neighbouring ATUs in the same county or 2 or more districts of Bucharest Municipality, this is approved through decision of County Councils, or General Council of Bucharest Municipality, respectively.
- For the case where the AQ Plan needs to be elaborated for several neighbouring ATUs located in neighbouring counties or for the Municipality of Bucharest with neighbouring counties, it is jointly approved through decisions by the involved County Councils, or County Councils and the General Council of Bucharest Municipality (GCBM), respectively.
- The plan for maintaining the AQ is prepared by the County Council for the ATs located in the same county, or the GCBM for the districts of Bucharest, and is approved through County Council decision or GCBM decision, respectively.

2.2 Water bodies and drinking water

Local level. Bucharest does not have a strategy for water bodies and drinking water as such, even though the national legislative framework would not prevent the municipality to develop its own strategy. Bucharest Municipality and Ilfov County are part of the Arges-Vedea River Basin

Administration, therefore specific elements are mentioned in the plan adopted by the Local River Committee.

National level. Water bodies. Law no. 107/1996 – Waters Law, as amended, represents the framework law regarding the water and water bodies, in Romania. Law no. 107/1996 ensures the transposition of Directive 2000/60/EC establishing a framework for Community action in the field of water policy.

Regarding the local public authorities' responsibilities, the Law no. 107/1996 provides for the following:

- The monitoring of the quality of the drinking water and of the bathing water is to be ensured by the central public authority for health, as well as by the local public authorities – Art. 5 (5);
- Local public authorities (LPAs) have the obligation to ensure the efficient management of water distributed in the localities, as well as the collection of meteoric waters, water drainage and wastewater treatment;
- In cases of accidental pollution, water management bodies will immediately inform the LPAs downstream the river;
- The maintenance of the minor bed of the river is incumbent on the National Administration "Romanian Waters" and LPAs;
- When drafting the master plan, the Local Basin Committee involves, among other stakeholders, the representatives of the county councils and local councils;
- The operative actions in emergency situations – such as flooding, dangerous meteorological phenomena, hydrotechnical construction accidents, accidental pollution interventions shall be organised by the county council emergency situations committee and the Emergency Situation Committee of the Bucharest Municipality, respectively, as well as by the local emergency situations committees;
- Financing for the maintenance, reparations and safeguarding of the water management works in the local public domain, important in protection against flooding and for the operative operations in case of flooding, as well as for the reconstruction and re-operationalization of the water management works belonging to the local public domain, affected by natural hazards or other significant events is ensured through local budgets;
- Financing for the investments regarding the works, constructions or installations for water management, other than the ones intended for protecting against the flooding, is supported by the state or local budgets, for works of public utility, credits obtained by the LPAs, other sources;
- A list of specific contraventions and crimes are established also for the LPAs.

Drinking water. Emergency Governmental Ordinance no. 7/2023 on the quality of water intended for human consumption ensures the transposition of EU Directive 2020/2184 on the quality of water intended for human consumption.

Regarding the local public authorities' responsibilities, EGO no. 7/2023 is providing for the following specific responsibilities:

- Private building owners / associations of owners, as well as the administrators of the public buildings, are obliged to identify the existence of lead components in the drinking water system of the building and submit the information the local public administration, which is centralising the situations and communicate the Ministry of Development, Public Works and Administration;
- This database should be realised by 2027
- For the situations where derogations are approved, county public health directorates and of the Bucharest Municipality are informing the population, through the water supplier and / or the local public authority, as soon as possible on the derogation and its conditions;
- LPA and regional water operators promote measures to ensure or improve the access to drinking water to the entire population, particularly for the vulnerable and marginalised groups.

2.3 Soil

Soil protection is a major endeavour for the mankind. For many generations natural resources have been considered as inexhaustible, and among all, soil was not considered to be of any particular importance; however, in the recent period, land - climate interaction has started to be looked upon more carefully and soil seems to have an important role in both mitigation and adaptation especially in urbanized areas.⁴ Researchers have found that “Globally, soils store two to three times more carbon than the atmosphere,”⁵ therefore we may need to learn fast how to better interact with this resource so that the stock of carbon contained in the soil is of helps in our efforts to contain the global temperature at rates agreed through the Paris Agreement.

However, from the perspective of resource management and climate change at city level, soil also need to be protected from pollution; polluted soil may generate nuisances both in the air and in underground water which can generate from discomfort to significant health problems.

Bucharest does not have a strategy for soil protection as such, even if measures are being provided in different pieces of regulation, strategies and or action plans, such as the “Bucharest Integrated Urban Development Strategy 2021-2030”, which mentions “REDUCTION OF POLLUTION AND IMPROVEMENT OF AIR, WATER AND SOIL QUALITY” as sectoral program under the strategic Objective 3. Sustainable City; however, **there is no measure or action dedicated to soil pollution prevention, soil protection or regeneration**, as such.

Traditionally, soil pollution happens in the proximity of industrial sites, through storing different kind of waste, in the proximity of intensely circulated roads. The Environmental protection agency's website mentions a list of 132 potentially contaminated sites, which refer mostly to gas stations⁶ (the list includes two additional fuel storage sites for which soil remediation works took place and which are no longer in operation).

Otherwise, research performed sporadically during the most recent decade, with respect to soil pollution with chemical substances⁷ or with biological pathogens⁸ highlight the status of pollution of soils in Bucharest and map changes produced between 2015 and 2020, raising concerns about the increase of polluted areas. **pH of soil, Fe, Cu, Pb, Zn, Cr, Cd, Chlorides content in soil are increasing.** The only indication that displays a **decrease in humus**. Researchers have found that the “spatial variability is remarkable”, and soil pollution remains correlated with the potential sources of pollution, being them, uncontrolled storage of waste, industrial sites or transport and they conclude that a monitoring program for soil quality needs to be put in place. On the other hand, regarding the biological contaminants, *toxocara spp.* was the main species of canine intestinally parasites found in most of the soil samples analysed and this was deemed as being a major zoonotic risk for humans.

At regional level, there is no special vision with respect to soil, especially if urbanization on agricultural land and development on horizontal is considered; however national legislation (Order no. 756/1997 for the approval of the Regulation on the assessment of environmental pollution, Law no. 74/2019 regarding the management of potentially contaminated sites and contaminated sites) offer the legal framework with respect to soil pollution.

Also, the National sustainable Development Strategy and Action Plan includes objectives with respect to soil, including prevention of soil degradation and erosion and soil restoration.

Considering the recently adopted EU soil strategy for 2030,⁹ and its key actions, Romania will have to transpose/create its own vision with respect to soils and take benefit of the EU initiative of embedding a legislative proposal on soil health. As a consequence all administrative levels (including the city level) will have to make sustainable soil management the new normal, establish objectives to limit drainage of wetlands and organic soils and to restore managed and drained peatlands to mitigate

⁴ IPCC SPECIAL REPORT: SPECIAL REPORT ON CLIMATE CHANGE AND LAND

⁵ Role of soils in climate change mitigation, Ana Frelth-Larsen and others, Öko-Institut Berlin

⁶ <http://www.anpm.ro/web/apm-bucuresti/date-situri-potential-contaminate>

⁷ The current state of the quality of urban soils in Bucharest, <https://doi.org/10.21698/rjeec.2020.225>

⁸ Soil Contamination with Canine Intestinal Parasites Eggs in the Parks and Shelter Dogs from Bucharest Area <https://doi.org/10.1016/j.aaspro.2015.08.103>

⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0699>

and adapt to climate change, investigating streams of excavated soils and using methods for boosting circular the economy and enhancing reuse of clean soil, restoring degraded soils and remediating contaminated sites, increasing research, data and monitoring on soil, mobilising the necessary societal engagement and financial resources.

2.4 Water use

Local level. In 2019, the *Master Plan for the Water Supply and Wastewater treatment in Bucharest, including the long-term investment plan 2019 – 2049*¹⁰ has been approved by the General Council Decision no. 577/2019. Among the conclusions, it can be read as follows: regarding the investments on water supply, Bucharest does need to: a) ensure the continuity of the water supply, even in case of hazards such as accidental pollution; b) reduce the losses in the pipeline network and of the associated repairing works due to the age of the distribution network (some pipelines dating more than 100 years); c) ensuring a coverage area of 100% for water supply for Bucharest and neighbouring localities (drinking water supply); d) continuously improve the quality for the water supply service provision.

In terms of wastewater treatment, the conclusions drawn are indicating the pursue of the following actions: a) decreasing the flooding generated by heavy rains; b) the need to extend the coverage of the sewage system in the recently developed areas of Bucharest; c) decreasing the high level of infiltrations in the sewage system; d) improving the environment protection (water quality of the natural emissaries).

Additionally, the current “Bucharest Integrated Urban Development Strategy 2021-2030” includes “REDUCTION OF POLLUTION AND IMPROVEMENT OF AIR, WATER AND SOIL QUALITY” as sectoral program under the strategic Objective 3. Sustainable City Development actions with respect to water supply. Also, the city needs to have a Water safety plan, as requested by the Law no. 458/2002 regarding the quality of drinking water. Responsible for the preparation of such a plan is the water producer, as per the provisions of the Order no. 2.721/2.551/2.727/2022 regarding the approval of the General Framework for water safety plans, as well as for establishing the responsibilities of the competent authorities and water producers and/or distributors regarding the preparation, evaluation and approval of water safety plans.

The Directorate of Public Health of the Municipality of Bucharest ensures the supervision and control of water quality monitoring beverages distributed to consumers for the purpose of verifying compliance with the provisions of Law no. 458/2002 updated. Monitoring drinking water quality is carried out in accordance with the provisions of the GD no. 974/2004 amended and supplemented by GD no. 342/2013 and Law no. 458/2002 updated, both by the producer (operational monitoring), as well as by the Directorate of Public Health of the Municipality of Bucharest (audit monitoring) according to programs approved by the Directorate of Public Health.

At regional level, there is no special vision with respect to water use in cities.

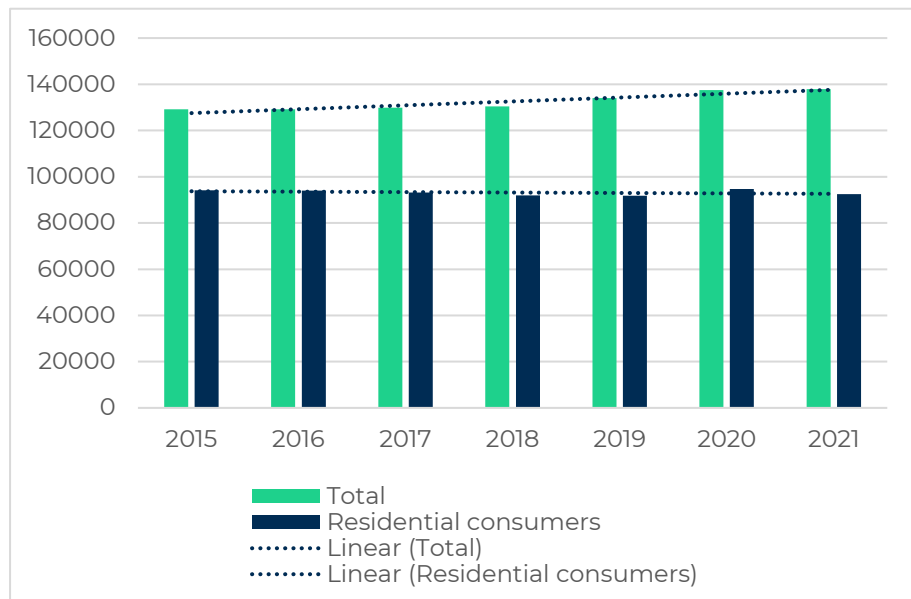
National level. Water is consistently/“inextricably” linked with climate change. “Climate change affects the world’s water in complex ways. From unpredictable rainfall patterns to shrinking ice sheets, rising sea levels, floods and droughts – most impacts of climate change come down to water.”¹¹

Water consumption in Bucharest varies between 129 and 138 mil m³; from this amount, between 92 and 95 mil is distributed to residential consumers – see Figure 2-1 below for the yearly water consumption in total and per residential consumers in Bucharest.

¹⁰ https://doc.pmb.ro/legis/acteinterne/2019/40388/AnexaH577p1_19.pdf

¹¹ <https://www.unwater.org/water-facts/water-and-climate-change>

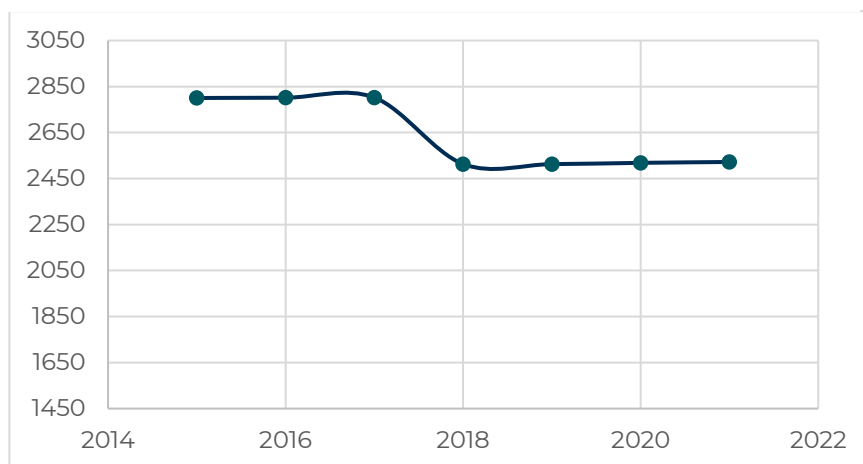
Figure 2-1: Amount of water distributed to end users in Bucharest (1000 cubic meters)



Source: consultant’s interpretation, based on tempo-online database, National Institute for Statistics

The trend of water consumption indicates an increase of the total of 6.5% over the period 2017 to 2021, while residential consumption is relatively steady, but registering a peak in the year of pandemics (2020), with almost 95 mil m³, compared with the average of 92.8 mil over the period 2017 – 2021. The capacity of water production in Bucharest is 1.4 billion m³. The network’s length suffered a small decrease between 2017 and 2018 and varies slightly thereafter – see Figure 2-2 depicting the evolution of the length of the water distribution network between 2014 and 2020.

Figure 2-2: Length of water distribution network (km)



Source: consultant’s interpretation, based on tempo-online database, National Institute for Statistics

Water consumption is metered, based on regulation established at national level almost 30 years ago, through Governmental decision no. 348 of July 20, 1993, regarding the metering of water and thermal energy for the population, public institutions and economic agents.

At national level, the field is strongly regulated through the Law of water 107/1996 and its modifications and changes. The Strategy for water management for the period 2023 – 2035 is under preparation, and the National sustainable Development Strategy includes objectives with respect to water use and water conservation.

At European level, water field is regulated through the Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy¹²

2.5 Open/Green Space

Although the law requires it and over the years the municipality has been fined for this, Bucharest City Hall still does not have a Register of Green Spaces today. Currently, there is a Registry that was created in 2011 through a service contract, not updated and not approved by the General Council of the Municipality of Bucharest.

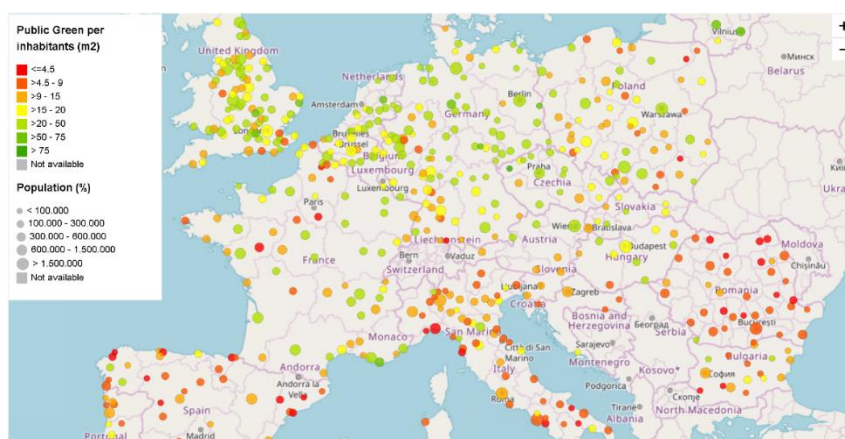
As per the statistics of the municipality, the green space in Bucharest, accounted for 23.21 sqm per inhabitant, in 2011 or sector wise:

District of Bucharest	District 1	District 2	District 3	District 4	District 5	District 6
Green space surface (sqm/inhabitant)	77.19	12.43	16.27	21.12	12.8	17.71

Source: Planul Local de Acțiune pentru mediu al Municipiului București¹³

According to environmental activists, in Bucharest there are less than 10 square meters of green space per inhabitant, while the figure of at least 26 square meters is presented as the European Union's recommendation, and that of the World Health Organization of at least 50 square meters (for the ideal amount).¹⁴ For comparison, in 2012, Vienna had an area of 120 square meters of green space per inhabitant, followed by Helsinki (100) and Stockholm (86). Capital cities much larger than Bucharest had more green space, among them being London, with 27 square meters, Berlin – 38 square meters and Rome – 45 square meters. Figure 2-3 shows the map of the green spaces per capita across the EU countries.

Figure 2-3: Public green area per inhabitant in the EU MSs



Source: <https://urban.jrc.ec.europa.eu/thefutureofcities/space-and-the-city#the-chapter>

¹² <https://eur-lex.europa.eu/eli/dir/2000/60/oj>

¹³ https://doc.pmb.ro/consiliu/dezbatere/1597/1666356843ph_aprobare_plan_local_actiune_mediu.pdf

¹⁴

https://www.curteadeconturi.ro/uploads/483e5daa/808f6c90/b3a17224/8a208e63/3c6c13a2/51b0862f/cddc744f/e37f4a24/sinteza_peisagistica_14-12-2015.pdf

In year 2020, the Environmental Guard of the Municipality of Bucharest fined the General City Hall with 100,000 lei for the lack of the Register of Green Spaces and, in 2021, the Court decided that the Municipality must create/approve the Register. Also, in 2021, the institution of the Public Lawyer recommended the Municipality to make the necessary diligences and ensure the minimum of 26 sqm of green space per inhabitant¹⁵.

The problem of preparing the Registry and implementing the necessary actions is even more difficult to solve as the municipality lacks an updated General Urbanistic Plan (PUG) and or an up-to-date cadastre registry. With respect to PUG, the preparation is currently under development, and the expected completion is year 2024.

The City Hall of the municipality **intends to revise/update the evidence of green space made in 2011**, according to the requirements stipulated in the specific legislation, respectively: Law no. 24/2007 covering the regulation and administration of the green space from the interior of the localities, republished, with subsequent changes and additions; Order of the Minister of Development, public works and housing no. 1.549/2008 regarding the approval of the Technical Norms for the elaboration of the local Register of green spaces, modified by Order no. 1.466/2010.

Bucharest Integrated Urban Development Strategy 2021-2030 includes “Conservation of natural heritage and development of green infrastructure” as sectoral program under the strategic Objective 3. Sustainable City Development; actions with respect to Protection and sustainable exploitation of protected natural areas and degraded ecosystems & Expanding the network of green spaces, including through the reconversion of degraded / abandoned lands are foreseen.

At Region level, there is no special requirement with respect to green space/green infrastructure and the national level requirements apply: Law no. 24/2007 covering the regulation and administration of the green space from the interior of the localities, republished, with subsequent changes and additions.

Even though at national level, there is, basically, no city that satisfies the requirement of 26 sqm/capita, this should rather be of concern than give any comfort and non-action.

At European level, the Biodiversity Strategy 2030 aims “to bring nature back to cities and reward community action - the Commission called on European towns and cities of at least 20,000 inhabitants to “, develop ambitious Urban Greening Plans” including “measures to create biodiverse and accessible urban forests, parks and gardens; urban farms; green roofs and walls; treelined streets; urban meadows; and urban hedges.””¹⁶ and the European Commission has created a Guidance document¹⁷ and will create a toll in order to support and assist cities in creating their Plans.

2.6 Biodiversity

Local level. Bucharest Municipality does not have a policy or specific legislation covering the elements related to biodiversity, management of natural protected areas, conservation of natural habitats, flora and fauna. However, in 2016, by Governmental Decision – GD no. 349/2016, it has been established the first natural urban park in Romania, Vacaresti Natural Park, which is located 5 km from the Bucharest city centre, being the biggest and compact green area in Bucharest, covering more than 183 ha.

National level. Emergency Governmental Ordinance no. 57/2007 on natural protected areas management, and conservation of natural habitats, wild flora and fauna (EGO no. 57/2007) represents the framework law for this field. This legislative act is currently under revision.

Under the current law, LPAs may establish natural protected areas (NPAs) of local interest. For the NPAs of local interest, the responsibilities for administration / management belong to the LPAs.

¹⁵ https://avp.ro/wp-content/uploads/2021/04/recomandarea55_1_2021.pdf

¹⁶ https://environment.ec.europa.eu/topics/urban-environment/urban-greening-platform_en

¹⁷ <https://circabc.europa.eu/ui/group/3f466d71-92a7-49eb-9c63-6cb0fadf29dc/library/6d3d8199-38cf-443b-b4ec-3326263db9e3/details?download=true>

NPAs are to be distinctively marked, by the National Agency for Cadastre and Real Estate Publicity, on the national, zonal and local territory and urban plans, on the cadastral plans and of land books, as well as by the central public administration for agriculture, in the informatic system of parcel identification.

The National Agency for Natural Protected Areas may sign partnerships, among other institutions, with local public authorities (LPAs), for the purpose of ensuring the management of the NPAs.

LPAs are members of the consultative management committees, which are functioning in the support of the administration structures of the NPAs (mostly natural and national parks).

Land use plans, local and national development plans, as well as any other plans which entail the exploitation or use of the natural resources coming from the NPA shall be harmonized with the provisions of the management plan.

In the NPAs where ecotourism is allowed, as well as environmental education and training, shall be organised in cooperation with LPAs, education institutions, etc.

The draft for amending the EGO no. 57/2007 introduces, *inter alia*, a new concept – natural urban protected areas and other NPAs established within the administrative territorial units (ATUs). Local Councils, e.g., are entitled to establish natural urban protected areas and NPAs of local interest. For the NPAs of national interest, the endorsement from the Local Councils is part of the documentation for the establishment of such NPA, but it has a consultative attribute. NPAs of local interest can be established only on the public or private property of the ATUs. This is however a draft EGO.

National Strategy on Forestry (2030), approved by Governmental Decision no. 1227/2022, is promoting some objectives and measures relevant to the urban environment, such as: Objective 7.6. Increasing of the urban and peri-urban forests so as to ensure the connectivity of the landscape, by the end of 2026. One of the envisaged measures is referring to installing of urban / peri-urban forests and establishing green corridors. This concept has been further developed within the draft for the New Forest Code, which is currently under public consultation.

2.7 Climate change mitigation

Cities in Romania do not have mandatory legal targets for the decrease of their GHG emissions, however they are affected by the policies regulation the different sectors of activity (i.e., The Long-Term Strategy, the National Energy and Climate Plan, the Energy Efficiency in Buildings Directive, etc). Cities can join different EU/International initiatives and assume voluntary targets.

Five of the six sectors of Bucharest and the municipality have signed the Covenant of mayors¹⁸, assuming the minimum required targets (i.e., 40% by 2030): Sector 1 (January 29, 2009), Sector 2 (February 20, 2018), Sector 3 (August 25, 2017), Sector 4 (January 22, 2018), Sector 6 (January 30, 2018) and the Municipality of Bucharest (May 16, 2011).

Measures foreseen for the emissions reductions cover energy efficiency in buildings, energy efficiency and fuel conversions in transportation and renewable energy generation.

Also, at municipality level, the **Mobility plan describes in detail municipality's intentions to improve mobility and decrease emissions from transport**. Among these, alternative (nonmotorized) and public transportation, represent key measures as well as the buildup of intermodal transportation hubs and street infrastructure systematization. **Implementation of the Plan is slow, and action must be encouraged**.

The methodological norms for the application of Law no. 350/2001 on territorial planning and urban planning and on the development and updating of urban planning documentation of 26.02.2016 provide the framework for the preparation of the Urban mobility plans; recent legal developments include the set-up of a working group at government level for the coordination and optimization of urban mobility plans (Regulation on the organization and functioning of the National Support Group

¹⁸ <https://eu-mayors.ec.europa.eu/en/signatories>

for the optimization of sustainable urban mobility plans, dated 14.12.2022) demonstrating the intention of the Government to ensure coherent development across the country.

At national level, the National Strategy on Climate change and its National Action Plan, adopted by Governmental Decision no. 739/2016, represent the vision of the Government with respect to mitigation of climate change. This strategy is going to be updated /replaced by the Long-Term Strategy (Vision)¹⁹ – under finalisation – as required by the Paris Agreement and by the Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action (and its subsequent acts).

2.8 Climate change adaptation

National level. The policy and legislative framework for adaptation to climate change is represented, at the national level, by international, European and national provisions. UNFCCC (United Nations Framework Convention on Climate Change) and the Paris Agreement, at international level, supplemented by the Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, Commission Implementing Regulation on structure, format, submission processes and review of information reported by Member States pursuant to Regulation (EU) 2018/1999, Commission Implementing Regulation (EU) 2022/2299 laying down rules for the application of Regulation (EU) 2018/1999 as regards the structure, format, technical details and process for the integrated national energy and climate progress reports, Regulation (EU) 2021/1119 establishing the framework for achieving climate neutrality (“European Climate Law”).

At national level, the most important provisions, still in force, are included in the National Strategy on Climate change and its National Action Plan, adopted by Governmental Decision no. 739/2016, which has 2 components – one on mitigation, and one on adaptation to climate change. Currently, the draft National Strategy on Adaptation to Climate Change (2023 – 2030) with perspective to 2050 and its associated National Action Plan (2023-2030) has ended the public consultation phase and entered the phase prior to the Romanian Government approval.

Local level. Bucharest Districts. Climate change plans.

Bucharest District 1 – according to the information publicly available, there was a local action plan submitted within the framework provided by Covenant of Mayors approved on 07.09.2011, having only a mitigation component. There is no update on the existence of a new such plan. However, the Sustainable Development Strategy for District 1 is currently under development (it has been announced back in 2020).

Bucharest District 2 – has been selected among the 100 smart and climate neutral cities by 2030 in the European Union, alongside with the Mayorship of Cluj-Napoca and Suceava Municipalities. Therefore, Bucharest District 2 has signed a consultancy contract for drafting the Climate City Contract (CCC). This must be followed up and reflected into the GCAP, making sure that the synergies between the Bucharest District 2 initiative and GCAP are well highlighted.

Bucharest District 3 – Sustainable Development Local Strategy for 2021-2027 (Local Council Decision) includes measures what qualify as adaptation measures, such as the strengthening of the rapid reaction to extreme weather events of high intensity, or preoccupation for awareness raising on the imminent character of climate change at the level of local authorities, as well as at the level of the citizens.

Bucharest District 4 – Sustainable Development Local Strategy for 2020-2024 (Local Council Decision) does not include specific climate change measures.

Bucharest District 5 – It is currently under public consultation the draft Strategy for Local development.

Bucharest District 6 – Integrated plan for urban sustainable development (2021-2030) (Local Council Decision) does not include specific measures for adaptation to climate change.

¹⁹ <http://www.mmediu.ro/articol/strategia-pe-termen-lung-a-romaniei-pentru-reducerea-emisiilor-de-gaze-cu-efect-de-sera/6135>

3 NDC Assessment

As a Member State of the EU, Romania's Nationally Determined Contribution (NDC) is part of the EU's NDC communicated to the UNFCCC.²⁰ Policies established at EU level, among which, the EU-ETS, the Effort Sharing Decision, the Regulation on the governance of the energy union and climate action etc. will deliver by 2030 at least 55% reduction in greenhouse gas emissions (GHG) as compared to 1990 levels, to which Romania is contributing.

In the case of Romania, data and other elements regarding the estimated contribution of the country to the EU NDC are presented in the Integrated National Energy and Climate Change Plan (INECCP) for 2021-2030.²¹ These are shown in Table 3-1.

Table 3-1: Romania's NDC targets

Year	Target
2030	-43.9 %* ETS emissions (% compared to 2005)
2030	-2 % Non-ETS emissions (% compared to 2005)
2030	30.7 % Overall share of renewable energy in gross final energy consumption (RES-Electricity share 49.4 %, RES-Transport share 14.2 %, RES-Heating & Cooling share 33.0 %)
2030	Energy efficiency (% compared to the PRIMES 2007 projection for 2030) -45.1 % Primary energy consumption -40.4 % Final Energy Consumption 32.3 Primary energy consumption (Mtoe) 25.7 Final energy consumption (Mtoe)

Source: INECCP 2021-2030

3.1 BAU emissions of the City of Bucharest

Data pertaining to various aspects such as economic performance, energy, land use, solid waste, and water, among others, specific to Bucharest, is currently unavailable. As a result, estimations have been derived by extrapolating 10% of the national inventories, a percentage that aligns with both the reference area and the population for Bucharest in the values at national level. Furthermore, it is important to acknowledge that data sourced from local emission inventories cannot be subject to independent verification, as they have suffered different interpretations within the Plan for Maintaining Air Quality in Bucharest 2018 – 2022 and the Integrated Plan for Air Quality in Bucharest, respectively, which serve as sources for these extrapolations. The results are presented in Table 3-2.

Table 3-2: Business-as-usual scenario for Bucharest's GHG emission projection until 2050 (expert's estimation)

GHG source sector	2017		2030		2040		2050	
	kt CO2eq.	%	kt CO2eq.	%	kt CO2eq.	%	kt CO2eq.	%

²⁰ https://unfccc.int/sites/default/files/NDC/2022-06/EU_NDC_Submission_December%202020_0.pdf

²¹ https://energy.ec.europa.eu/publications/draft-national-energy-and-climate-plans-necps-submitted-2018_en

Environmental performance ²²	2,100.00	17.98%	1,160.00	0.09	1152.77	8.95%	1145.54	8.89%
Energy	9,846.96	84.33%	10,049.80	78,00%	10051.36	78,00%	10052.92	78,00%
Transport	29.05	0.25%	21.99	0.2%	21.93	0.17%	21.8	0.17%
Industry	1.96	0.02%	1.96	0.0%	1.96	0.02%	1.9	0.02%
Land use	(1,825.82)	-15.64%	-991.62	-7.7%	-985.21	-7.65%	-978.7	-7.59%
Solid waste	358.46	3.07%	200.68	1.6%	199.46	1.55%	198.2	1.54%
Water	225.86	1.93%	227.08	1.8%	227.09	1.76%	227.1	1.76%
Buildings	5.49	0.05%	5.28	0.0%	5.28	0.04%	5.2	0.04%
Other	934.84	8.01%	2199.12	17.1%	2208.84	17.14%	3181.37	17.21%

The main source of emissions in Bucharest is the energy sector, with a contribution of 84% in 2017 in total emissions, followed by the solid waste sector and the water sector, with 3% and 2% respectively in 2017.

3.2 City's contribution to the NDC

National targets to EU NDC

The information presented in this report, concerning the sources of GHG emissions has been compiled using officially available data for the reference years 2015, which were published in 2021. For the year 2022, no verified information is yet available, while the forecast covers the period 2020 - 2035. This data is presented in Table 3-3 below.

Table 3-3: Sources of country's GHG emission by sector for 2015-2030

GREENHOUSE GAS SOURCE kt CO ₂ eq.	2015		2020		2025		2030	
Environmental performance			21,000.00	14%	16,300.00	11%	11,600.00	7%
Energy	98,469.60	69%	98,367.88	67%	92,501.80	62%	100,497.97	62%
Transport	15,730.41	11%	17,435.50	12%	18,937.50	13%	19,854.02	12%
1.A.3.a. Domestic aviation	127.09	0%	105.23	0%	157.14	0%	201.83	0%
Industry	11,872.23	8%	12,710.01	9%	13,916.66	9%	14,779.93	9%
2.A. Mineral industry	4,515.27	3%	5,028.52	3%	5,624.32	4%	6,074.05	4%
Land use	(18,258.18)	-13%	(16,038.89)	-11%	(12,831.39)	-9%	(9,916.24)	-6%
Solid Waste	3,584.62	3%	2,904.53	2%	2,304.54	2%	2,006.76	1%
Water	2,258.63	2%	2,309.19	2%	2,289.62	2%	2,270.81	1%

²² The Environmental Performance Index (EPI) is a method of quantifying and numerically marking the environmental performance of a state's policies. It should be noted that only at national level, starting from 2020 and predictions for 2025 and 2030 were found. For Bucharest, this indicator was not found in any of the documents studied, so the values presented are resulted from the extrapolation performed by the expert.

Buildings	9,348.39	7%	9,799.22	7%	10,451.14	7%	10,995.59	7%
Other	18,696.78	13%	19,598.44	13%	20,902.28	14%	21,991.18	14%

Source: Romania's 7th National Communication under the United Nations Framework Convention on climate changes

This structure is also reflected in the following steps of the analysis. Consequently, it is imperative that measures be implemented in these sectors to curtail emissions. Such measures include the adoption of alternative green energy sources, mitigation of industrial emissions, enhancement of transportation systems, and the optimization of thermal efficiency in buildings.

Extrapolation of Bucharest contribution to NDC based on national targets.

It is essential to note that data pertaining to sectors of activity lacks year-to-year correlation, requiring extrapolations and simulations for analysis. Moreover, there is no data for the economic performance, energy, land use, solid waste, water and other sector for Bucharest. To derive the emissions for Bucharest from the national emissions, a 10% share has been used, which corresponds both to the share of the surface of Bucharest in the national surface and in the share of the population of Bucharest in the national population. Although the industrial sector is an important sector as a source of emissions, given the economic development trend of the city, we believe that relevant for estimating the proportion of the city's contribution to the national NDC are the population size and the area of development. These two indicators were taken into account when estimating the city's contribution to the national NDC. The results are presented in Table 3-4 below.

Table 3-4: City contribution to NDC

GREENHOUSE GAS SOURCE kt CO ₂ eq.	2020, National		2020, Bucharest	
Environmental performance	21,000.00	14%	2,100.00	18%
Energy	98,367.88	67%	9,846.96	84%
Transport	17,435.50	12%	3,146.08	19%
Industry	12,710.01	9%	1,187.22	7%
Land use	(16,038.89)	-11%	(1,825.82)	-11%
Solid Waste	2,904.53	2%	358.46	2%
Water	2,309.19	2%	225.86	2%
Buildings	9,799.22	7%	934.84	6%
Other	19,598.44	13%	979.92	1%
Total	168,085.88		12,651.23	

Source: expert calculations - extrapolation, based on Plan for Maintaining Air Quality in Bucharest 2018 – 2022 and Integrated Plan for Air Quality in Bucharest

The emission values correspond to those included in the draft INECCP submitted to the Commission on 31 December 2018. However, it is estimated that the final value for 2030 is likely to decrease, among others, as a result of the reduction in the final energy consumption and the decrease in coal-based electricity production.

As far as emission inventories are concerned, the data provided at national level do not have the same structure as those provided at Bucharest level, and their interpretation is different in the two source documents issued by the authorities, generating a worrying margin of error. Hence, there is a need for a uniform system with verification loops to minimise uncertainties and regulate the reporting procedure.

3.3 GCAP sectors contribution to NDC

Various international reports and assessments appraising Romania's environmental performance, typically from the Sustainable Development Goals (SDG) standpoint, are available. However, no corresponding data pertaining to Bucharest's environmental performance has been identified. Consequently, it is imperative to initiate monitoring and data collection efforts for this particular indicator.

The data analysis reveals a projected increase in emissions for the year 2030. This increase can be attributed to the anticipated socio-economic development of the area. This implies the verification of the consistency of the data sources and evaluate the efficacy of the measures and reduction plans that have already been implemented. Table 3-5 summarizes the influence of the NDC on the city's operations with regard to its environmental performance and the way it conducts its operations in this area.

Table 3-5: NDC's impact on the environmental performance of Bucharest

Sector of activity	Impacts of the NDC on Bucharest environmental performance
Environmental Performance	Available data show a possible focus on compliance with the European Union Climate Action Regulation ²³ , but without consistency and monitoring. There is no data on the environmental performance of Bucharest.
Transport	Transport values are monitored and reported in emission inventories and there are several initiatives in place, including the Sustainable Urban Mobility Plan, General Transport Master Plan, National Vehicle Fleet Renewal Incentive Programme, General Urban Plan.
Buildings	There are emission inventories completed annually, which form the basis of Integrated Air Quality Plan, Air Quality Maintenance Plan, General Urban Plan.
Industries	Emission inventories are compiled annually, serving as the foundational data for various critical initiatives, including the Local Environmental Action Plan, Strategic Noise Maps, and the General Urban Plan.
Energy	There are emission inventories completed annually, and these serve as the bedrock for several pivotal initiatives, including National Programme on Increasing the Energy Performance of Housing Blocks, Romania National Strategy for Energy Efficiency, National Strategy Regarding the Thermal Power Supply of Cities, National Renewable Energy Action Plan.
Water	There are emission inventories completed annually, which form the basis of Master plan for the water supply and Wastewater.
Solid Waste	Annual emission inventories underpin critical strategic initiatives in Bucharest, including the Long and Medium Term Development Strategy of the Public Sanitation Service in Bucharest Municipality, Waste Management Plan for Bucharest, Master plan for the Integrated Waste Management.
Land use	There are emission inventories completed annually, which form the basis of General Urban Plan, Integrated Urban Development Plan for the Central Area of Bucharest Municipality, Local Environmental Action Plan.
Other / cross-cutting	There are annual emission inventories which serve as the foundation for key urban planning documents, including the General Urban Plan, Integrated Urban Development Plan for the Central Area of Bucharest Municipality, Local Environmental Action Plan.

²³ The Climate Action Regulation, also known as the Effort Sharing Regulation, is Europe's tool to reduce the climate impact of sectors not covered by the EU Emissions Trading System (EU ETS).

However, the quality of the transport data needs to be re-evaluated, taking into account the precariousness of the city transport system and the energy performance of buildings. Efforts to mitigate wastewater and waste generation, both significant concerns for the city, should also be pursued diligently.

Based on available data and simulations, to reduce GHG emissions in Bucharest, the targets presented in Table 3-6 are proposed.

Table 3-6: Proposed GHG reduction targets for Bucharest, 2020 as base year.

Sector	Measure	Target	Contribution in GHG eq.
Energy	Increase the percentage of energy from green, renewable energy sources	45%	4,431.13
	improve energy efficiency in public lighting, traffic lights, decorative and festive lighting	25%	2,461.74
Transport	improve city's surrounding (roads/highways) infrastructure	20%	629.22
	improve traffic management, public transportation, limit private cars access in certain areas	20%	629.22
Land use	Increase green areas surfaces	20%	(365.16)
Buildings	improve energy efficiency in buildings	30%	280.45

Targets have been set in correlation with targets already communicated in different plans or strategies or on a minimum sustainable and necessary basis.

3.4 Summary of NDC assessment

As already mentioned, data from several sources were used for this analysis, each source having different reference years, different sectors analysed, and different units of measurement used. Thus, the data could not be correlated without including a level of uncertainty that cannot be statistically determined in percentages.

Given the extrapolation required to determine GHG emissions for most sectors (environmental performance, energy, land use, solid waste, water, and others), it is recommended to validate and assume the starting point already determined and set emission reduction targets for GCAP.

In order to properly measure progress towards the reduction targets, the monitoring method (i.e., the method of determining the value of the set indicators) and the monitoring sources should be pre-established and regulated, without being changed or altered during the monitoring period. Furthermore, emission inventory reports from all source owners should be verified and validated as accurately and completely as possible, with respect to source coordinates, source characteristics, mass balance, flow rates, units of measurement against conversion formula, reference years etc., with annual continuity to ensure data quality for the whole process.

4 City's Jurisdictions and responsible authorities

4.1 City competencies and its relation to the six administrative sectors

General Municipality of Bucharest

According to the relevant legislation, in particular the Administrative Code of Romania, issues through the Government Emergency Ordinance (GEO) no. 57/2019, the deliberative authorities for the local public administration (LPA) in Bucharest consist of the General Council of the Bucharest Municipality (GCBM) and the Local Councils of the six Districts/Sectors. The General Mayor (GM) of Bucharest and the Local Mayors are the executive authorities for the LPA in Bucharest.

The GCBM approves the strategies for the economic, social and environmental development of the administrative unit – the Bucharest Municipality, as per art. 129 (3)(e) of the Administrative Code. The Local Councils are entitled to endorse strategies and "studies, forecasts and programmes for social-economic development, territorial organisation and urban management, including the participation to the local and regional development programmes, in accordance with legal requirements, which are to be approved by GCBM.", as per art. 166(2)(c) of the Administrative Code.

Additionally, the Local Councils must act for the protection and rehabilitation of the environment, aiming at increasing the life quality in their administrative unit. The Local Councils contribute to the protection, conservation, restoration and valorisation of the historical and architectural monuments, parks and natural reservations, as per art. 166(2)(o) of the Administrative Code.

The GCBM exercises the same responsibilities as the local councils. According to the law, the local councils ensure the framework for providing public services of local interest in the following domains:

- education;
- social services for child protection, persons with disabilities, old persons, families and other persons and groups with a social need;
- health;
- culture;
- sport;
- public order;
- emergency situations;
- protection and restoration of the environment;
- conservation, restoration and valorisation of historical and architectural monuments, parks, public gardens and natural reservations;
- urban development;
- records of persons;
- bridges and public roads;
- community services of public utilities of local interest;
- emergency services such as lifeguard, rescue and first aid;
- social- community administration activities;
- social residences and other housing spaces belonging to the property or administration of the administrative territorial unit (ATU);
- other public services of local interest;

In addition, GCMB has competences for the following actions:

- enhances the natural resources within the ATU, to the interest of the local public community;
- approves the construction of social housing, the criteria for the distribution of social housing and housing utilities under its ownership or management;
- provides, in whole or in part, with the consent of the owner of the right of ownership or of the right of administration, the works and the funds necessary for the rehabilitation, equipment and operation of the buildings in which public authorities or institutions, whose activity presents a local interest, carry out their activity. The goods purchased for endowments remain the property of the ATU;

- ensures, in whole or in part, with the agreement of the institution or public authority holding the right of ownership or administration, the development, furnishing and maintenance of buildings or land in the public or private ownership of the state, in order to increase the level of tourist attractiveness of the ATU, provided that, through the express agreement, the right holder allows public access to the spaces thus improved for a period of at least 5 years.

Districts of the Bucharest Municipality

The local councils of the Districts of the Bucharest Municipality have, inter alia, the following competencies:

- endorse studies, prognosis and programs of social- economic development, land use planning and urbanisation, including the participation to regional and zonal development programmes, in accordance with the law, which are lately approved by the GCBM;
- approve, within their competences, urbanisation documentations and technical-economic documentations for the investment works of local interest, and ensure the necessary conditions for their implementation, in accordance with the provisions of the general urban plan (GUP) of Bucharest Municipality and of the associated regulation;
- ensure, within their competencies, the necessary conditions for the functioning of public services and institutions of local interest in the following areas: education, health, culture, youth and sports and public order;
- contribute to the organisation of scientific, cultural, artistic, sporting and leisure activities;
- ensure the public order;
- act for the protection and restoration of the environment, aiming at increasing the quality of life;
- contribute to the protection, conservation, restauration and enhancement of the historical and architectural monuments, parks and natural reservations;
- contribute to the implementation of the social protection measures and child rights protection;
- approve the criteria for distributing the social residences;
- establish and ensure the functioning of charity institutions of local interest;
- establish and organise markets, rural markets, places of distraction, sports basis etc.;

It can be ascertained that the local councils of the districts do exercise, partially, the same responsibilities as those of the GCBM, albeit limited within their administrative competencies. However, there are overlaps or gaps with regards to the specific competencies of the local councils of the districts. Therefore, cooperation in promoting development strategies at Bucharest Municipality level is a must.

Additionally, the Administrative Code regulates the relationship between the public administration authorities in Bucharest, as follows. First, the decisions of the GCBM and the regulations adopted by the GM are mandatory to the local public administration authorities organised as districts/sectors of the Municipality of Bucharest. Second, the GM and the district mayors shall meet at least once per month, upon the request of the GM or at the proposal of at least 3 district mayors. The agenda of such a meeting can include discussions on how the decisions and the legislative provisions of the GCBM and of the GM are being implemented at the district level, reciprocal information on the activities at the district level, aiming to ensure their coordination for the well-functioning of the Bucharest Municipality as a whole. The Prefect of Bucharest may also be invited to these meetings. Third, the district mayors are entitled to attend the meetings of the GCBM and may have interventions during the debates. At the GCBM meetings, the presidents of the specialty committees established at district level may also attend, may have interventions, but have no voting right.

Particularities in exercising specific responsibilities, jointly with other authorities or administrations

Additionally, to the local public administration authorities of Bucharest Municipality and its six Districts, several Associations for Intercommunity Development (AID) for certain areas and domains have been established, exercising specific responsibilities delegated either by the Bucharest Municipality and/or by the six Sectors, jointly with other authorities, as follows:

1. **Bucharest Metropolitan Area - AID for Bucharest Metropolitan Area (AIDBMA)**
 - a) *Members:* Bucharest Municipality through GCBM and Ilfov County through Ilfov County Council;
 - b) *Mission & Objectives:* Mission: to contribute to all regional and metropolitan priorities, including sustainable mobility, education and social inclusion, research and innovation; to develop and promote the regional development projects, of common interest to both constituting parties, in the following sectors: social services, education, transport, waste management, infrastructure, environment, research & development, interregional & transnational cooperation, development of business & entrepreneurship environment, tourism and management of emergency situations;
 - c) *Competences:* support policies, strategies and plans for sustainable development, integrated urban development, management of the local and regional urban development;
2. **Public transportation - AID for Public Transportation in Bucharest – Ilfov (AIDPTBI):**
 - a) *Members:* Bucharest Municipality, through GCBM, Ilfov County through Ilfov County Council, 8 cities and 32 communes in Ilfov County;
 - b) *Mission & Objectives:* association of public utility, established for jointly organising and exercising the legal competences of the local public administration authorities - member to the Association – regarding the provision of public transportation services within their administrative territories;
 - c) *Competencies: inter alia,* establish the strategic planning, monitoring and **approving** the activities for the authorisation, organisation, management and control of the functioning of the public transportation services in the region Bucharest – Ilfov, for the transportation executed by: buses, trolleybuses, trams, metro, regional / metropolitan / suburban trains, naval shipping and other transportation ways on land, water and airborne, including alternative transportation modalities; issuing the **approvals** for ensuring the technical and functional requirements for local public transportation service and the railway local public transportation service, integrated with the regional public transportation service, regional railway transportation, waterborne and airborne transportation, as well as alternative transportation modalities and any other aspects contributing to urban mobility; ensuring the coordination of the implementation of the projects established by the Sustainable Urban Mobility Plan for Ilfov Bucharest.
 - d) AIDPTBI is entitled to exercise the management of the service for public transportation either directly or through delegated contracts assigned to operators, according to the relevant legislation;
3. **Waste management – AID** for the integrated management of municipal waste in Bucharest:
 - a) *Members:* Municipality of Bucharest, represented by the General Mayor, and the 6 Districts, represented by their respective mayors;
 - b) *Mission & objectives:* Association of public utility, constituted for jointly establishing, organising, regulating, operating, monitoring and managing the sanitation service within the administrative territories of the members, as well as for jointly implementing the investment projects of regional interest relevant to the public utilities systems;
 - c) *Competencies:* establish the public utilities system for Bucharest (in accordance with the Municipal Plan for Waste Management and the Master Plan); **sign contracts and exercise delegated management** to contracted operators, in accordance with the legal provisions, on behalf of its members.

- d) Additionally, AID for the Integrated Waste Management for Ilfov comprises, among its members, all local public administration authorities in Ilfov County plus the Ilfov County except for Bucharest Municipality;
4. **Water supply & Wastewater treatment:** Bucharest Municipality, also on behalf of the District Mayorships, has concessioned the public service for the water distribution, water treatment and water sewage system to SC APA NOVA BUCUREȘTI SA; at the county level, for jointly organising the provision of drinking water and sewage system, it has been established the AID Water - Ilfov, consisted of the Ilfov County Council and 26 other local public administration authorities.
5. **District heating: AID Termoenergetica Bucharest – Ilfov**
- Members: Bucharest Municipality, Popești-Leordeni City and Chiajna Commune;
 - Mission & Objectives:* a service within the administrative territories of its members, executed through a regional operator organizing, regulating, operating, monitoring and jointly managing the heating system established by the members. It can access European funds for the development of the distribution and provision of district heating;
 - Competencies:* can sign contracts for delegating the management of the district heating to an operator, in accordance with the relevant legislation.

4.2 Powers of the City by GCAP sectors

Table 4-1 describes the decision-making power in each GCAP sectors, based on existing legislative and policy framework, in terms of ownership and operations, setting and enforcing policies, budget and revenues, and vision setting powers, respectively. Table 4-1 below should be read in conjunction with Section 4.1 above.

For each sector, a traffic-light colour has been used to qualify the level of power the City has with respect to the above-mentioned areas of intervention: **green colour** represents “strong” power, **orange colour** represents “partial” power and **red colour** represents “limited” power.

Table 4-1: City's powers by sector

Sector/ sub-sector	Own & Operate	Set & Enforce Policies	Budget & Revenue	Vision Setting	Describe City's decision-making power in each sector and influence on investment.
Transport	Green	Green	Green	Green	<ul style="list-style-type: none"> the city is responsible for organizing public transportation¹⁾
Buildings	Orange	Green	Orange	Green	<ul style="list-style-type: none"> approves the general urbanistic plan approves zonal urbanistic plans issues construction permits and follows up on the implementation of requirements
Industry	Red	Orange	Red	Green	<ul style="list-style-type: none"> approves the strategies regarding the economic, social and environmental development of the administrative-territorial unit^{**)} ensures a favourable environment for the establishment and/or development of businesses, including by capitalizing on the existing heritage, as well as by making new investments that contribute to the fulfilment of regional and local economic development programs^{**)}
Energy	Green	Green	Orange	Green	<ul style="list-style-type: none"> heat supply through District Heating Systems¹⁾ natural gas supply¹⁾

					<ul style="list-style-type: none"> • public lighting^{*)}
Water					<ul style="list-style-type: none"> • water supply^{*)} • wastewater collection, treatment and discharge^{*)} • rainwater collection and evacuation^{*)}
Solid Waste					<ul style="list-style-type: none"> • waste management^{*)}
Land use					<ul style="list-style-type: none"> • endorses or approves, in accordance with the law, the territorial planning and town planning documentation of localities
Other					<ul style="list-style-type: none"> • ensures as per its competence and in accordance with the relevant legislation, the necessary framework for: <ul style="list-style-type: none"> • education • social protection and services • health • culture • youth • sports • public order and security • services emergency situations • environmental protection and restauration • conservation, restoration and enhancement of historical and architectural monuments, parks, public gardens and nature reserves • urban development • records of persons • roads and bridges • local interest community services • social residences & others • valuing, in the interest of the local community, the natural resources within the administrative-territorial unit • other public services of local interest established by law • approves the construction of social housing, the criteria for the distribution of social housing and housing utilities under its ownership or management • can provide, in whole or in part, with the consent of the owner of the right of ownership or of the right of administration, the works and the funds necessary for the rehabilitation, equipment and operation of the buildings in which public authorities or institutions whose activity presents a local interest carry out their activity. The goods purchased for endowments remain the property of the administrative-territorial unit; • can ensure, in whole or in part, with the agreement of the institution or public authority holding the right of ownership or administration, development, furnishing and maintenance of buildings or land in the public or private

					ownership of the state, in order to increase the level of tourist attractiveness of the administrative-territorial unit, provided that, through the express agreement, the right holder allows public access to the spaces thus improved for a period of at least 5 years.
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Table 4-2 highlights the most relevant external entities having a strong influence in the investment for each GCAP sector. However, this list should not be considered as being exhaustive. Moreover, table 4-2 should be read in conjunction with Section 4.1 above.

Table 4-2: External entities with influence in investment

Sector/ sub-sector	List external entities that have strong influence in investment in each sector. Describe the links with the City
Transport	<ul style="list-style-type: none"> • Ministry of Transport <ul style="list-style-type: none"> ◦ owns the company handling the underground transportation in Bucharest; pays the subsidy for the underground transportation ◦ Romanian Auto Registry – RAR – is the technical specialized body designated by the Ministry of Transports as competent authority in the field of road vehicles, road safety, environment protection and quality assurance • Ministry of Environment, Water and Forests (MEWF) - Issues the general permitting and liability rules to specific provisions on matters such as air/soil/water pollution, integrated pollution prevention and control, asbestos, waste management, and end-of-life vehicles
Buildings	<ul style="list-style-type: none"> • Ministry of Development, Public works and Administration through <ul style="list-style-type: none"> ◦ The Law no. 350/2001 as amended and the land development, urban planning, and the construction code soon to be adopted, states the general development and permitting rules • the State Inspectorate in Constructions - verifies and ensures observance of the applicable urbanism regulations and the legal requirements for the quality of constructions works and materials (in Romania)
Industry	<ul style="list-style-type: none"> • Ministry of Economy - carries out the tasks and responsibilities of the State in the fields of economic policy, financial policy, budgeting, and tax policies • Ministry of Environment, Water and Forests (MEWF)
Energy	<ul style="list-style-type: none"> • Ministry of Energy – through the general policy in the field • TSO (Transmission System Operator - Transelectrica) – through its development plans • DSO (Distribution System Operator – E-Distributie) – through its development plans • MEWF – through the decarbonization plans/stimulation instruments for the development of use of RES
Water	<ul style="list-style-type: none"> • MEWF – which can support the municipality in its projects with respect to water infrastructure, especially when the infrastructure is blue type • Apanova – the water distribution & water treatment company
Solid Waste	<ul style="list-style-type: none"> • MEWF – which can support the municipality in its projects, especially when the infrastructure is blue type • District administration • Waste management stakeholders
Land use	<ul style="list-style-type: none"> • Ministry of Public Administration – through the land development, urban planning and construction code • Ministry of Environment, Water and Forests – through the permitting procedure • Ministry of Transport – through its development plans in the area of the city

<p>Other</p>	<ul style="list-style-type: none"> • Banks (which can support through financing decisions adopted by the municipality) • Private sector (which can decide to invest according to the vision of the municipality) • NGOs - which can support (or not) decisions adopted by the municipality
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5 Financial Analysis and Municipal Budget

This section is providing a concise overview of the financial independence and capability of the Municipality of Bucharest. Our analysis builds on the most recent available financial data related to the city's revenues and expenses.

Table 5-1 provides an overview of the financial performance of the Municipality of Bucharest over a six-year period from 2018 to 2023. It presents data on revenue, expenditure, and various financial categories, allowing for some key preliminary observations that we present at the end of this chapter.

Ultimately, this analysis seeks to help determine the city's ability to invest in potential environmentally friendly initiatives and projects over the next five years.

Table 5-1: Municipality of Bucharest Budget - Revenues and Expenditure (2018-2023) in MEUR. Compiled from Official Municipal Sources.²⁴

	2018	2019	2020	2021	2022	2023 ²⁵
<i>Av. Reference exchange rates 1 EUR to Lei²⁶</i>	4.654	4.7453	4.8383	4.9215	4.9318	4.9388
Revenue	1 549.28	1 738.05	1 971.88	1 815.73	1 980.52	2 424.45
Own revenue - tax	936.15	921.24	905.67	909.94	999.79	1 007.68
Own revenue non-tax	348.66	503.73	492.58	374.92	355.04	542.50
Income from capital	28.67	1.14	116.70	79.61	17.69	60.62
Financial operations	30.08	136.65	190.12	176.46	337.92	261.93
Subsidies	198.95	155.30	214.59	197.71	204.21	349.54
Amounts received from the EU on account of payments made	6.76	20.00	52.21	77.09	65.87	202.18
Expenditure	1 794.15	1 765.66	1 973.30	1 826.53	1 980.52	2 424.45
Current expenditure	1 373.35	1 434.36	1 638.60	1 616.42	1 699.63	1 890.02
Capital expenditure	283.45	319.89	264.98	194.17	143.02	349.44
Financial operations	137.61	22.88	133.76	23.32	141.26	176.87
PNRR projects	N/A	N/A	N/A	N/A	N/A	9.35
Payments in previous years and recovered	-0.26	-11.48	-64.04	-7.38	-3.40	-1.22

²⁴Bucharest City Hall (pmb.ro)

²⁵ Based on Budget updated on 28.07.2023

²⁶ Based on ECB reported average values for each year:

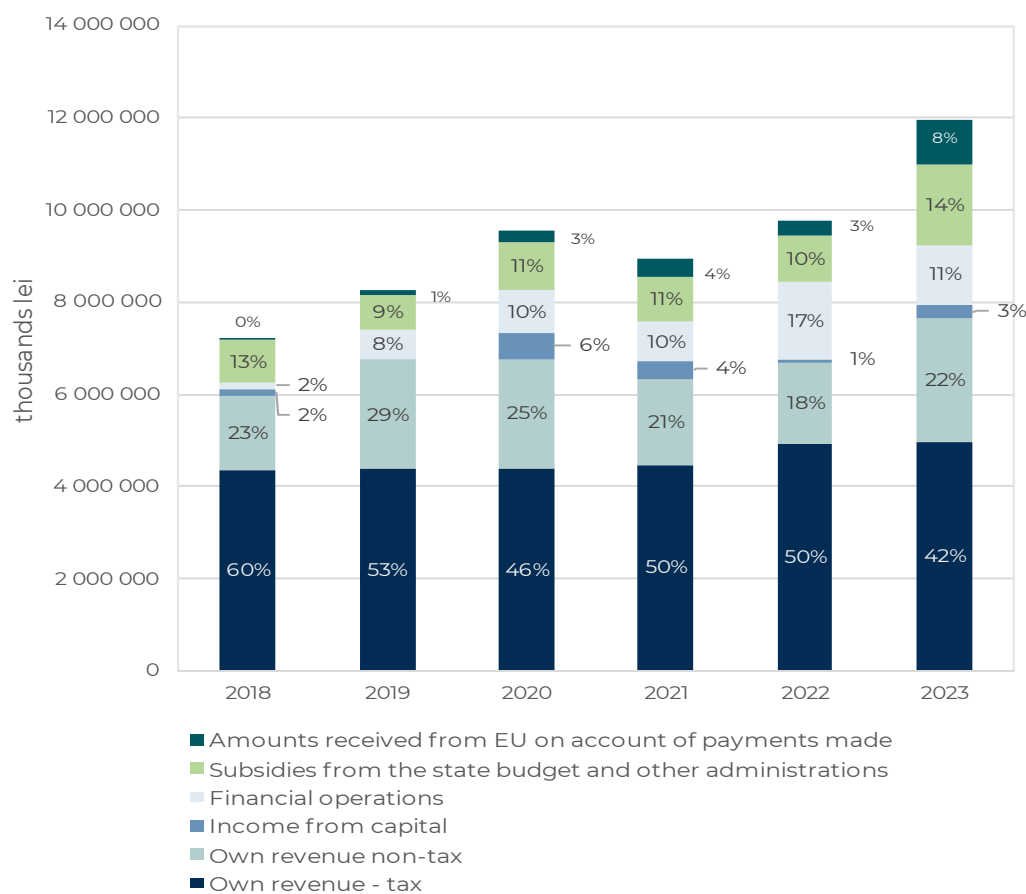
https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-ron.en.html

Overall, the data reflects the Municipality's efforts to reducing deficits and achieving a balanced budget in 2022. In 2023, the data shows no deficit or surplus, indicating that revenue and expenditures were equal.

5.1 Revenues

The revenues of the Municipality of Bucharest **have increased steadily since 2018**, suggesting that the city's financial health improved over time. In 2018, total revenues amounted to 7.2 billion RON (about 1.5 billion EUR) and reached about 12 billion RON in 2023 (about 2.4 billion EUR). Figure 5-1 shows the evolution of the revenues of the Municipality of Bucharest between 2018 and 2023 including the percentage share of total expenditures of each item.

Figure 5-1: Evolution of the budget of the Municipality of Bucharest in 2018-2023: Revenues



Overall, the data shows a diversified revenue portfolio for the city. Own revenue from taxes remained a significant source, and the Municipality increasingly relied on non-tax revenue, financial operations, subsidies, and EU funding to support its budget. Data also shows:

- **Own revenue from taxes increased steadily since 2018 playing a major role in the Municipality's income.** In 2018, own revenue from taxes accounted for the largest share of total revenue at 60%. This percentage gradually decreased over the years but remained a significant source of income, contributing 42% to the revenue in 2023. This suggests that taxes on income, profit, and capital gains from city's residents consistently played a major role in the Municipality's income. Regarding revenues from taxes, it is important to consider that a proportion of income is not under the control of the local authority but is collected centrally and redistributed. Furthermore, it is noteworthy that local taxes and duties, such as property tax, are collected by sectoral town halls and serve as revenue sources in their budget.

Additionally, the absence of a special-purpose tax in Bucharest is important, which could potentially serve as a funding source for specific environmental initiatives.

- **Non-tax revenue from other sources also increased in 2023 compared to 2018, which suggests that the Municipality diversified its income streams beyond taxation.** In 2018, it represented 23% of total revenue with some fluctuations in subsequent years. While this share varied, it remained a substantial contributor, comprising 22% of total revenue in 2023.
- **Income from capital is relatively small compared to other revenue sources.** It had fluctuations starting at a low share of 2% in 2018, reaching 3% in 2023. Although this is a relatively small share, it suggests that investments and capital-related income contributed modestly to the Municipality's finances.
- **The revenues from financial operations have increased considerably in the past two years.** These represented only 2% of the total revenue in 2018 and gradually increased over the years, peaking at 17% in 2022 before settling at 11% in 2023. This suggests that financial activities, such as loans or investments, play today a more substantial role in the Municipality's revenue compared to 2018, especially in 2022.
- **Independent credit rating analysis indicates that the Municipality has a reasonably stable financial situation with a strong ability to manage its debt.** Fitch Ratings²⁷ has assessed Bucharest's creditworthiness through different metrics. One of these metrics is the Standalone Credit Profile (SCP), which evaluates the city's ability to meet its financial obligations without considering any external support. In this case, Bucharest's SCP is rated 'a', indicating that the city has a moderate risk profile and a strong assessment of debt sustainability ('aa'). A moderate risk profile suggests that there is a reasonable level of stability and predictability in its financial operations. An 'aa' Debt Sustainability Assessment indicates that Bucharest's debt level is viewed as highly sustainable. It implies that the city has a strong capacity to meet its debt obligations over the long term without significantly impacting its financial stability despite pressures on its budget stemming from increasing prices, the war in Ukraine and the implementation of investment plans.

5.2 Expenses

The expenditures of the Municipality of Bucharest **have consistently increased over the past five years, reflecting the Municipality's expanding financial commitments.** Starting from 8,3 billion RON in 2018 (about 1.8 billion EUR), expenses reached about 12 billion RON in 2023 (about 2.4 billion EUR), indicating a substantial growth trend. Figure 5-2 shows the evolution of total expenses of the Municipality between 2018 and 2023 including the percentage share of total expenditures of each item. In general, the data indicates a consistent focus on current expenditure over time. While capital expenditure is significant, there have been fluctuations in its relevance. Financial operations have also shown variability. Expenses related to National Recovery and Resilience Plan (NRRP) projects were included for the first time in the budget in 2023. Data also shows:

- **Current expenditure, which covers day-to-day operational costs and routine expenses, has consistently represented the largest portion of total expenditures.** It started at 77% in 2018 and gradually increased to 88% in 2021 before settling at 78% in 2023. The breakdown of current expenditures in 2023 (see Figure 5-3) shows that the most significant shares of the total current expenditure are allocated to goods and services (19% of total expenses) and grants (19%). A significant portion of the budget is allocated to staff-related costs (18%), including salaries and wages as well as towards initiatives funded by non-reimbursable EU funds post-EU accession (15%). According to the Regional Operational Program, the value of regional expenditure in research and development has been on an upward trend since 2012 reaching 1,231 million RON (about 240 million EUR) in 2017.
- **Capital expenditure showed variations but increased notably in 2023.** These investments cover infrastructure and other long-term projects, reaching 1,320 million RON (or 0.3 billion EUR) in 2023. In 2018, capital expenditures represented 16% of total expenses. It reached its

²⁷ See Fitch Affirms [Romanian City of Bucharest at 'BBB-'; Outlook Stable.](#)

lowest share at 7% in 2022 before rising slightly to 14% in 2023. This suggests that while capital expenditures are significant, there might have been some variation in investment priorities.

- The expenditures associated with financial operations have fluctuated but displayed a noticeable increase in recent years.** This category includes loans and external payments, indicating that financial activities have become a more significant part of the Municipality's expenses. While this category accounted for 8% in 2018 and 7% in 2020 and 2022, it briefly dropped to 1% in 2019 and 2021. In 2023, it remained at 7%. The allocation for NRRP projects was included in the municipal budget only in 2023, with a share of 0.4%.

Figure 5-2: Evolution of the budget of the Municipality of Bucharest in 2018-2023: Expenses

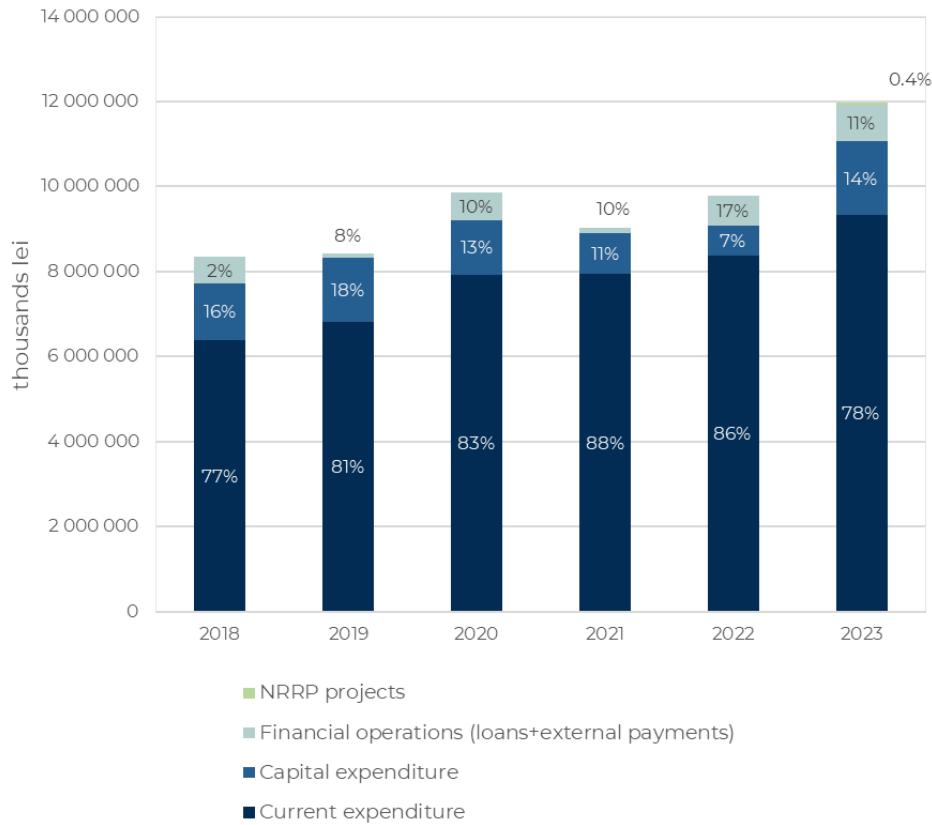
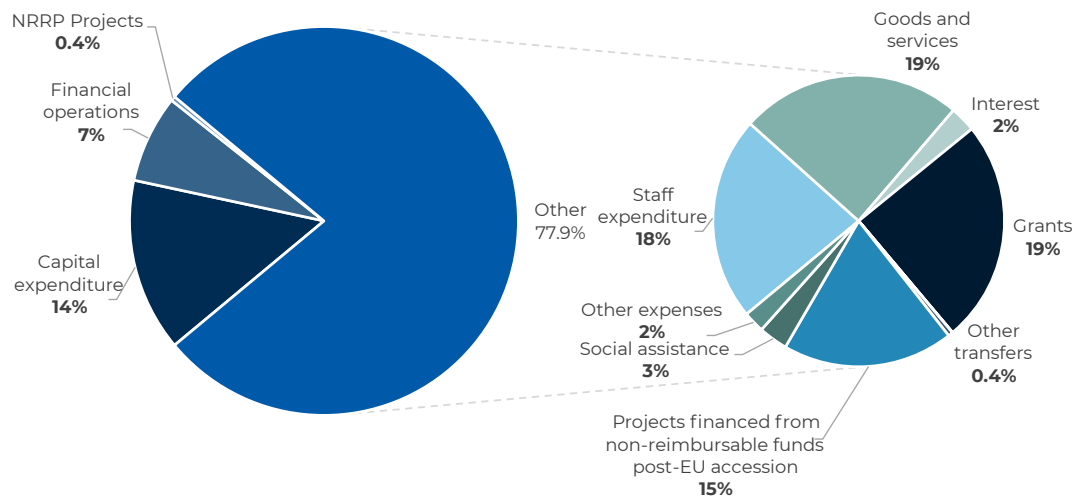


Figure 5-3: Budget of the Municipality of Bucharest in 2023: Expenses²⁸

5.3 Preliminary findings

Based on the provided information and financial data, initial observations related to the financial independence and capability of the Municipality of Bucharest, that should be taken into account in the upcoming years when assessing the feasibility of the GCAP measures, are presented below. These insights will be used as inputs for the financial analysis of the measures in the subsequent stages of the GCAP development, notably regarding the potential mechanisms and sources of funding for the priority actions.

- The Municipality's achievement of a balanced budget in 2022 and 2023 reflects cautious financial management during these two years. It indicates responsible budgeting, reducing reliance on external resources for covering expenditures. Achieving a balanced budget might also signal the city's conservative financial stance after 2021, highlighting a hesitancy to commit to extensive investments or expenditures, potentially impacting the city's capacity for large-scale, transformative projects with its own budget (investments in new infrastructure between 2022-2023 were largely financed by EU funds). The Stable Outlook suggested by credit rating analysis shows the city's financial situation will remain relatively steady in the near future.²⁹
- The Municipality's revenue sources including taxes, non-tax revenue, grants, and EU payments, enhances financial stability and reduces reliance on a single income stream. Nonetheless, the reliance on income tax and specific transfers from the state budget make the municipal revenues uncertain, as they are subject to annual changes in the tax code. Considering Fitch's assessment of limited flexibility in local taxes, exploring new revenue avenues like foreign capital investments is crucial. Notably, data from Bucharest Integrated Urban Development Strategy indicates a 6% increase in enterprises with foreign capital in Bucharest City between 2014-2018. During the same period, the value of foreign capital in these enterprises rose by 12%, outperforming national trends where the number of such enterprises decreased by 8.6%, despite a 26% increase in foreign capital value nationwide.
- Public-private partnerships (PPPs) could be an option for increased revenue sources. However, it has been reported that challenges arise from legislative complexities in Romania, which have failed to provide a stable and secure framework for potential private investors.³⁰ Addressing these regulatory issues is crucial to attracting private investments.

²⁸ Excluding payments in previous years and recovered

²⁹ See Fitch Affirms Romanian City of Bucharest at 'BBB-'; Outlook Stable.

³⁰ Stăneșe, I. T., & Ungureanu, M. A. (2017). DEFINING PUBLIC-PRIVATE PARTNERSHIP IN ROMANIA. Annals of the University of Petrosani Economics, 17(1).

- The city's (strong) expenditure adjustability suggests that Bucharest has much more flexibility over expenditure than other rated municipalities in Romania. This flexibility offers the city an alternative approach to reduce spending, freeing up more resources for other expenses. However, it is noteworthy that this flexibility is subject to the a discrepancy between sectors' revenues and their obligations in delivering services. Specifically, the absence of sectoral contributions to subsidies, such as for district heating, public transport or hospitals, underscores the limited capacity of City of Bucharest for investment expenses relative to the sectors.
- Comprehensive data specifically earmarking funds for green and climate initiatives remains scarce. Although official documents like the Bucharest Integrated Urban Development Strategy (Chapter 7: Environment and Biodiversity) outline priority investment areas, there is a lack of detailed information regarding the current implementation strategies and allocation methods. In this regard, urban development has been reported as a missed opportunity for investments. The World Bank has reported that despite substantial budgets at both the city and sector municipality levels, funds have often been allocated to projects with limited impact on the city's growth, such as entertainment, while infrastructure investments remained low. In the 2007-2015 period, it was estimated that Bucharest could have spent more than they actually did with over 750 million EUR for infrastructure investments.³¹
- There is potential for additional financial operations: The analysed data showed a significant growth in financial operations, such as loans and external payments. Leveraging additional financial instruments effectively can provide additional resources for investment in priority areas.
- There is potential for more EU Funding: The Municipality's access to EU funding sources has increased in the past years. To enhance financial capability, the municipality can continue seeking EU grants and aligning the GCAP measures with EU priorities.

³¹ Reimbursable Advisory Services Agreement on the Bucharest Urban Development Program (P169577)
Component 1. Elaboration of Bucharest's IUDS, Capital Investment Planning and Management

6 Social and economic conditions

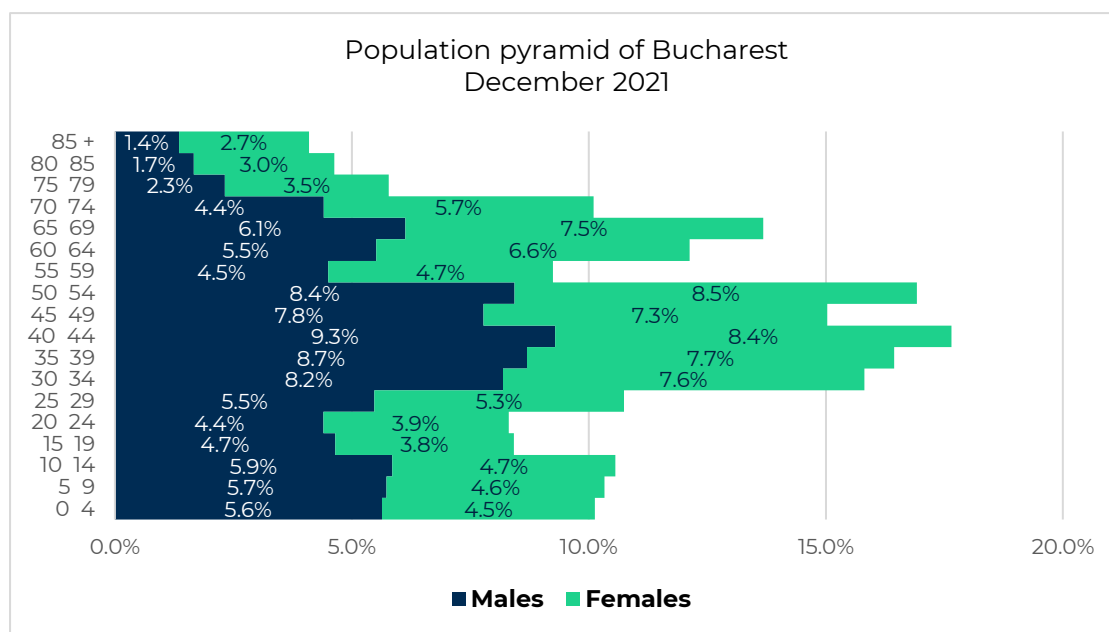
This chapter presents information on the current social and economic conditions of the city of Bucharest, or where data is more readily available of the NUTS II Bucharest and Ilfov Region (BIR). Due to the influence of the city and its size compared to the remaining non-urban parts of the BIR, the region acts as a suitable proxy for the city itself. The chapter presents the demographic data for the city and describes access to social public services, such as health, welfare, education, within the city, while also presenting information on the economic conditions. The importance of social inclusion in key policy documents forms the final part of the chapter before the conclusions summarise the findings.

6.1 Demographics

Bucharest concentrates almost one tenth (9.8%) of the population with official residence in Romania. The city is Romania's largest urban agglomeration, with a population of 2.16 million inhabitants. The population density of Bucharest city (9,004 inhabitants/km²) is nearly a hundred times greater than the density calculated at national level. The BIR has the greatest population density of all regions (1,436.6 inhabitants/km²) and shows the highest degree of urbanization (90.6% of the population).

The demographic pyramid of the city of Bucharest as of 2021 is presented in Figure 6-1.

Figure 6-1: Demographic pyramid of Bucharest, 2021



Source: <https://www.recensamantromania.ro/rezultate-rpl-2021/rezultate-definitive-caracteristici-demografice/> and processed by consultant.

Bucharest has the highest life expectancy in Romania. The average life expectancy is 77.8 years, 2.4 years above the national average. The average age for males in 2021 was 40.3 years while for females it was 44.5 years. The corresponding demographic ageing index³² is 92.2 for men and 162.3 for women. The demographic dependency ratio³³ is at 49.4 for men and 56.8 for women. While the population of Bucharest shows a small decline year on year of 0.5%, this is in line with the national trend.

The high degree of urbanisation by national standards and the pressure exerted by the commuter phenomenon generates an increasing pressure on the existing infrastructure and services and the amplification of traffic disfunctions. As a consequence, Bucharest ranks low in the EU in terms of

³² The demographic ageing index is the number of older people (aged 65 and over) per 100 younger people (under 15).

³³ The demographic dependency ratio is the ratio of the number of people of 'dependent' age (people under 15 and 65 and over) to the working age population (15-64) expressed per 100 people.

traffic congestion and the environment, but also in social indicators. For instance, the BIR ranks 219th out of 240 regions in terms of the EU index of social progress.³⁴ The index shows higher values than the EU average, only for the Basic Knowledge criterion, which is based on figures for pre-primary education, upper-secondary enrolment rate (age 14-18), lower-secondary completion only and early school leavers. However, it shows lower figures than the Romanian average for the Environmental Quality, Personal Rights and Personal Security indicators. Moreover, the Active Ageing Index (AAI)³⁵ of Romania (30.2) is amongst the lowest of the EU28, and although the BIR scores better for some metrics, such as political participation, in others it lags behind less developed regions of the country. Specifically, it shows a lower AAI than the North-East and South Muntenia, and lower levels of employment of the 55+ age group than the same areas, while for 2016 all regions of the country scored higher than the BIR on the “Independent, healthy, and secure living” metric.

According to the latest census data,³⁶ in terms of foreign citizens, Bucharest is home to approximately 1,250 Syrian nationals, about half the country’s Syrian population and about 14% of the total population of foreign nationals in Bucharest. This is by far the largest group of foreign nationals in Bucharest, with even the neighbouring Moldovans (the second largest group) trailing at about half this total. The populations of foreign nationals form a very small proportion of the city’s total population (about 0.5%), so while the city may pride itself on being referred to as the Paris of the East, it can hardly be considered truly cosmopolitan. Provisional census figures for ethnicity of the population of Bucharest for December 2021³⁷ also show little diversity in the composition of the population with no certain ethnic group making up a significant proportion of the non-Romanian population. By far the largest group is the Roma, who make up 0.63% of the population, with Hungarians making up second place with around 2,170 individuals and 0.13% of the population. No other ethnic group approaches these figures. It should be noted that the potential for the Roma community to be underreported in the census is high, not least because there are about 440,000 citizens (almost 25% of the population) recorded with unavailable ethnic information.

6.2 Access to public services

Health

The Romanian health system is built around the institution of the family doctor or the General Practitioner (GP). The family doctor is the patient’s first contact with the health system, and the primary care services are based on the ongoing relationship between the doctor and the person enrolled in his/her list. In the BIR, the enrolment rate with the family doctor’s list, i.e., the ratio of the city’ population registered with a family doctor was 74.3% in the year 2020.³⁸ Primary healthcare services are complemented by specialized healthcare provided as outpatient services.

As per the national health statistics,³⁹ of the country’s 544 hospitals (both public and private sector), 78 are found in the Municipality of Bucharest. The number has been increasing for the last three years, with the state-owned hospitals remaining constant at 50, while the number of private hospitals has increased from 22 in 2020 to 28 in 2022. There are 22,726 beds available at these hospitals, of which about 10% are in the private hospitals. The figure for total hospital beds corresponds to 132 beds for 10,000 inhabitants of the city of Bucharest. This figure is well above the national average, but it should be taken into account that Bucharest is the capital city and often the destination for those seeking healthcare from outside the city limits. Thus, this number should be considered an upper-bound

³⁴ The EU regional Social Progress Index aims to measure social progress for each EU region as a complement to traditional measures of economic progress, such as the Gross Domestic Product (GDP). https://ec.europa.eu/regional_policy/information_sources/maps/social-progress/2020_en

³⁵ The Active Ageing Index is a tool to measure the untapped potential of older people for active and healthy ageing across countries. It measures the level to which older people live independent lives, participate in paid employment and social activities, and their capacity to age actively. Figures are taken from Olivia Rusandu, Romanian Ministry of Labour and Social Justice “STAKEHOLDER MEETING ON THE ACTIVE AGEING INDEX”, 2019 - https://unece.org/fileadmin/DAM/pau/age/Active_Ageing_Index/Stakeholder_Meeting/03-2_R.Olivia_presentation_long.pdf

³⁶ This is dated to December 2021, prior to the Ukrainian refugee crisis, but after the Syrian refugee crisis - <https://www.recensamantromania.ro/rezultate-rpl-2021/rezultate-definitive-caracteristici-demografice/>

³⁷ Romanian citizens by ethnicity: <https://www.recensamantromania.ro/rezultate-rpl-2021/rezultate-provizorii/>

³⁸ Social Trends, 2020 National Institute of Statistics

³⁹ <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>

estimate. The numbers are comparable to those in other new member states as well as Germany or Austria, and they are above the figures for the southern European member states, as per the World Health Organisation.

There are 511 outpatient clinics in Bucharest, either attached to hospitals or independent, four polyclinics and 29,622 surgeries, of which about a third are family surgeries and 2,090 are school surgeries. As there are 15,982 medical professionals registered in the Municipality of Bucharest, about a third of whom are in the private sector, this large number of surgeries are staffed by ancillary medical staff (neither physicians, nor family doctors) who number more than 24,000 in the national statistics figures for 2022. This averages at 93 medical professionals for each 10,000 inhabitants of the municipality. There are 4,819 pharmacists recorded in the statistics, or 28 for each 10,000 inhabitants, with 80% being in the private sector. Finally, the number of dentists is 4,212 of whom 75% are in the private sector. As with the figures for the hospital beds, above, the population needing to be served by each professional should be considered a low estimate due to the likelihood of the professionals of Bucharest being called upon to serve a population larger than that of the municipality alone.

Education

Bucharest had the country's highest net enrolment rate (94.2%) in the school/academic year 2020/2021. However, despite its proximity to the urban area of Bucharest, the lowest enrolment rates among all Romanian counties were recorded in Ilfov (37.0%). The net enrolment rate in lower secondary education for the 2020/2021 school year exceeds 85% in Bucharest while the enrolment rates in tertiary education are at 75.0%. According to the provisional data for education level of the population by county for December 2021,⁴⁰ the municipality of Bucharest is home to 603,500 university graduates, making up 35.1% of the total population of the municipality, more than double the national average. While the municipality of Bucharest is one of the main University centres of the country, the increased numbers are possibly connected to the level of opportunities provided within Bucharest for graduates. Comparably, the county of Cluj, the second university centre of the country, counts only 24.6% of the population as graduates of university level. In 2020, Bucharest-Ilfov had the highest share of existing volumes in the national library network (22.8%)⁴¹ but library utilization and the number of lent volumes lag behind other regions.

According to data for the academic year 2021-2022,⁴² in the BIR there were 3,761 children registered to attend preschool (at the very first "antepreșcolar" level) with a ratio of one preschool teacher for approximately 15 children. For each preschool teacher, there are approximately 3 non-teaching staff on average in urban preschools. Preschool at the "preșcolar" level accounts for 314 pre-schools in which about 60,000 children are registered, with a ratio of one teacher to about 13 children. Each of these preschools employs about fifteen teachers and approximately 8 non-teaching staff.

The city's 385 primary and gymnasium-level secondary schools educate approximately 190,500 registered pupils, with a teaching body of approximately 11,500 or one teacher for about 17 pupils. About 98.7% of urban primary and gymnasium-level secondary school pupils in the country succeeded to graduate to the next level of education. In Bucharest, 17,850 pupils graduated from secondary education (gimnazial level) in the academic year 2021-2022.

In the same academic year, there were 10,276 pupils registered for post-secondary (postliceal) education at the BIR's 43 schools, with 174 teachers providing the teaching – a ratio of one teacher to about 60 students. There were a further 5,266 pupils registered at the BIR's 48 professional schools, with 43 teachers a ratio of one teacher to about 120 students.

Finally, the RBI is host to 176,408 students at all levels of Tertiary Education. Of these approximately 22% are enrolled in private educational institutions. Of these, 126,891 are attending undergraduate University level courses at one of the region's 150 faculties at 31 Universities. There are 8,477 teaching

⁴⁰ Table: POPULATIA REZIDENTA DUPA CEL MAI INALT NIVEL DE EDUCATIE ABSOLVIT, PE SEXE SI JUDETE, LA 1 DECEMBRIE 2021 - REZULTATE PROVIZORII - National Institute of Statistics, available from <https://www.recensamantromania.ro/rezultate-rpl-2021/rezultate-provizorii/>

⁴¹ Social Trends, 2020 National Institute of Statistics

⁴² Published in the INS in "Romanian educational system - Summary data" - <https://insse.ro/cms/en/content/romanian-educational-system-summary-data-6>

personnel, or about one to 15 students. According to a report of the National Council for the Financing of Tertiary Education, three of the universities in Bucharest are in top 10 of all universities across the country according to the number of students enrolled – Bucharest University, Polytechnic University and University of Economics, amounting to around 83,000 students as of October 22.⁴³

Disadvantaged groups

Increasing living costs and residential segregation in the most developed and dynamic urban regions of Romania pose the risk of deepening poverty among low-income segments of the population such as precarious workers in labour-intensive jobs, large families with dependent children, persons living with disabilities, and the elderly. Gentrification and the high costs of local public transport have already affected the major cities of Romania.⁴⁴ Even the most developed cities have severely deprived areas, often home to the most disadvantaged segments of the Roma community. The Ferentari district of Bucharest, for example is home to 100,000 people, most of them being of Roma ethnicity. Living in large and fast-growing cities such as Bucharest might accelerate processes of gentrification and peripheralization of poverty that disproportionately affect the Roma population.

According to official statistical data for December 2021, the Roma population accounts for 10,740 individuals, or 0.6% of the population of the Municipality of Bucharest. This is likely an underreported figure, as the national average for the country stands at 3%, which itself is considered to be an underrepresentation. Given the small proportion declaring themselves as Roma, those that do publicly identify as Roma make up a very large proportion of the unemployed in the city of Bucharest (2.3%). However, many of them are in fact inactive and receive social support. The proportion of the inactive population receiving state support in Bucharest is about 0.04% of the population, which amounts to 7,570 individuals.

In terms of social care centres providing residential services⁴⁵, as of 31 March 2023, Bucharest is host to six Centres for Empowerment and Rehabilitation which currently provide services to 144 adults with disabilities. In addition, there are 199 adults and children catered for by the city's care and assistance centres. There are two neuropsychiatric rehabilitation centres operational, catering for 123 individuals while 6 sheltered housing complexes provide services to 30 individuals. In addition, there are 6-day care centres operational, providing services to 72 individuals, two outpatient neuromotor rehabilitation service centres catering to 180 people, as well as the country's only recorded occupational therapy centre, which serves 31 individuals. In total there are 21 centres providing some form of social support, catering to 717 people as of 31 March 2023.

The population needing social support of some form in a city of almost two million people is obviously many times more than the figures mentioned above. Figures for the disabled population indicate that 7,800 children and 67,398 adults are registered as disabled in Bucharest – 3.5% of the population. Of these, 455 were institutionalised as of 31 March 2023.

The city has no specific strategy for fighting homelessness. Instead, this vulnerable group is included in the cluster of people who are defined as experiencing 'social exclusion.' It is estimated that 33% of the country's population of roofless persons, last measured in 2004 as being 14-15,000,⁴⁶ are living in Bucharest. Among them, almost half of the individuals under the age of 35 had been living on the streets for at least 10 years. Regarding the ethnicity of the homeless, and especially those that were victims of eviction, a significant proportion is made of ethnic Roma population. Many Roma families live in social housing, and 54% of these (compared with 39% in rural areas) cannot afford to pay the rent, thus facing a high risk of eviction.

⁴³ http://www.cnfis.ro/wp-content/uploads/2012/08/SF_LMD-bugettaxa-1oct2022_preliminar_site.pdf

⁴⁴ Unequal Romania - Regional socio-economic disparities in Romania Stefan Fina, Bastian Heider, Cristina Raț - <https://www.fes.de/politik-fuer-europa/unequal-romania>

⁴⁵ Data drawn from <https://anpd.gov.ro/web/transparenta/statistici/>

⁴⁶ Feantsa, the European Federation of National Organisations Working with the Homeless (in the 2017 country fiche - <https://www.feantsa.org/download/romania-cfsh-jan-2017-final2599276833334601432.pdf>) presents a far larger figure for the homeless and calls this figure into question. The absence of a definition of homelessness does not facilitate the presentation of mutually compatible figures by different agencies.

Energy poverty is an issue which is particularly important for disadvantaged groups, given that it has the potential to impact them disproportionately. The Centre for the Study of Democracy's 2021 National Report on Energy Poverty in Buildings⁴⁷ takes a definition of Energy Poverty which encompasses "the inability of a households to secure the energy necessary for cooking, heating, cooling, or lighting, at a level that meets basic needs" and acknowledges that it can impact vulnerable households to a much larger extent. The EU mainly defines energy poverty as a result of a number of factors, of which low income and poor housing isolation are two key factors. The issue is addressed in a number of legal and policy documents.⁴⁸

In terms of District Heating, Bucharest is in the worst situation among all municipalities of the country, with heavy losses of water from the network, and repeated heating and hot water supply service failures during the winter season. The system functions on high subsidies, which are burdensome for the local public administrations, but the absence of which would render thermal energy uncompetitive pricewise. Interventions have been piecemeal in the city, either through installing individual meters or through replacing damaged pipes, but with very few alternatives, consumers here are forced to employ various coping solutions. In Bucharest households use electric boilers as a backup to serve their hot water needs throughout the year, the expense compounding any risk of energy poverty. Others have disconnected from the centralized utility system and have installed apartment systems for heating and hot water fuelled by natural gas.

The National Report on Energy Poverty mentions that around 100,000 people, most of them Roma, live in the Ferentari district of Bucharest, mostly in highly degraded, concrete panel apartment buildings, usually overcrowded. While some residents own their apartments, others live in illegal properties or shacks. Only a few of these buildings have been refurbished. The provision of public services is scarce and unreliable. Between 30% and 70% of the households in the Ferentari district cannot keep their homes adequately warm during winter and 50% of them cannot afford to pay the utility bills.

The authors of the 'Unequal Romania' publication⁴⁹ propose the following solutions for improving social inclusion:

- Ensure the well-being and social rights of precarious workers and vulnerable people (people living with disability, the low-income elderly, large families with dependent children) by including them in policy documents and strategies;
- Limit gentrification and better regulate the housing market;
- Invest in affordable public housing and desegregated social housing;
- Invest in subsidised public services: local transport, childcare, home-care services for the elderly and those living with disabilities, emergency social services for the most vulnerable, such as the homeless, victims of domestic violence, transnational migrants with unclear legal status etc.

⁴⁷ https://www.democracycenter.ro/application/files/7916/2686/2125/Energy_poverty_buildings_-_report.pdf

⁴⁸ Such as the so-called Energy law 123/2012 with subsequent additions and amendments defines the "vulnerable consumer", and targets three categories of consumers at risk of social exclusion: the elderly, the ill-impaired and the poor; the National Strategy on Social Inclusion and Poverty Reduction 2015-2020 and its related Strategic Action Plan 2015-2020 which aim at reducing poverty, including energy poverty; the National Energy Efficiency Action Plan 2017-2020 on energy consumption, in which the residential sector plays an important role; the National Long-Term Renovation Strategy (LTRS) of November 2020, which sets out the strategy for addressing the challenges of a low-efficiency building fund; the Green pillar of the National Recovery and Resilience Plan contains relevant chapters; the Law on informal buildings (Law 151/2019 that amends the Law 350/2001 on Landscape and Urbanism) which targets informal settlements in which the residents face extreme manifestations of energy poverty with very poor access to the grid and other basic utilities (water, sewage, electricity), and others.

⁴⁹ Unequal Romania - Regional socio-economic disparities in Romania Stefan Fina, Bastian Heider, Cristina Raț - <https://www.fes.de/politik-fuer-europa/unequal-romania>

6.3 Response to the Ukrainian-war-refugees crisis

As of November 2022,⁵⁰ more than 7.9 million refugees have reportedly fled Ukraine, with 2.3 million refugees arriving in Romania, of which more than 92,000 were still in the country as of November 2022. More than 19,600 refugees have registered for Temporary Protection (TP) in Bucharest. In the short term, 88% of the refugees interviewed by the UNHCR team⁵¹ wanted to remain in Bucharest in the month following data collection. However, in a longer term, all refugees did not foresee integration and wished to return to Ukraine as soon as the security situation would allow them to do so.

Almost one in five (18%) refugee children between the ages of 3 and 17 did not follow any formal education. While refugees who have registered for TP have free access to the Romanian educational system, only 6% of the children enrolled, due to the language barrier. Ukrainian distance learning remains the main schooling option for refugee children between 11 and 17 years of age as it allows them to follow classes in their native language. This solution was also recognized by the Ukrainian government as the most suitable.

In terms of accommodation, the “50/20 programme” of the Romanian Government in support for the Ukrainian refugees was perceived as a success for managing to provide incentives to potential hosts to accommodate refugees in their homes. The programme foresees a payment to the host of 50 lei per refugee hosted per day and 20 lei per refugee per day to cover their meals. The programme has greatly alleviated the accommodation problem, but the uncertainty regarding its continuation was a cause for concern for the refugees and their hosts alike.

Health services were perceived as one of the most difficult types of assistance to access by the refugees. Despite having access to the Romanian healthcare system under the same rights as insured Romanian nationals, several barriers exist for refugees to access the healthcare services they need. The most common barrier is the difficulty to register with a GP, which is essential for all further interactions with the healthcare system. The issue is also partly structural as even some Romanian nationals struggle to find an available family doctor.

Finally, although access to employment is important for the integration of the refugees, barriers to employment such as the language and the lack of childcare persist.

6.4 Economic conditions

As mentioned in the introduction to this chapter, statistical information about the BIR can act as a proxy for data for the city of Bucharest itself, due to the influence of the city and its size compared to the remaining non-urban parts of the region. This is especially true from the economic point of view. The size of Bucharest within the region and the interconnections with the county of Ilfov are so pronounced, that even though Ilfov is a county with its own administration, and it is not administratively integrated into the city, it can, economically be regarded as part of the city. In fact, a large share of the population who lives in Ilfov localities works in Bucharest and, consequently, is using the infrastructure and services offered by the municipality of Bucharest.

Bucharest-Ilfov is the most developed region in Romania, with the highest GDP per capita in the country, at EUR 49,200, representing 164% of the European average (EU27) according to Eurostat 2022, based on 2020 data.⁵²

Bucharest-Ilfov is the top region in terms of average disposable income, which is almost double that of the last-classified region of the country in terms of disposable income. RBI generates over 27% of Romania's GDP according to January 2022 statistics. In terms of employment, 1.4 million persons were in civilian employment, representing 88.5% of the region's labour resources. The unemployment rate as of 31 March 2023 was 0.9%, the lowest at national level, with only 13,300 unemployed persons.

⁵⁰ As per the UNHCR area-based assessment for Bucharest 2022, published in March 2023 - <https://data.unhcr.org/en/documents/details/98372>

⁵¹ The survey interviewed 177 refugees and 190 hosts.

⁵² As reported by EURES, a European cooperation network of employment services - https://eures.ec.europa.eu/living-and-working/labour-market-information/labour-market-information-romania_en#bucharest

In 2020, the BIR had a consumption expenditure of 3,346 lei (approx. EUR 680) per month / household, the highest in the country. The region shows the lowest level of poverty risk in the country, with the at-risk-of-poverty (social exclusion) rate being 12.6% in 2020, very much down from 34% in 2012. Due to the opportunities provided by the capital city, the employed population tends to have a high level of training and qualifications.

In terms of participation in the main economic activities, the share of civilian employment in services predominates (73.2%), while the share of employment is 25.7% in industry and construction and only 1.1% in agriculture. Services generate the largest number of jobs. Current vacancies (first quarter of 2023) are recorded in the following occupations: unskilled construction workers, couriers, secretaries, goods handlers, unskilled workers for the assembly and installation of parts, commercial workers, assistant cooks, security guards, and service staff in offices and the hospitality sector.

For the most part, the economy of the region is dominated by the functions of the capital as the centre of Government and the Public Administration. Most industrial and banking branches are present in the region, since Bucharest-Ilfov represents the main industrial agglomeration in the country. At the same time, trade, storage activities, distribution, administration and communal management, and constructions have also evolved rapidly. Due to the inclusion of Bucharest, the BIR is the most important national and international road, rail and air transport node of the country, characterised by a high degree of accessibility. In fact, the Henri Coandă International Airport which serves the city of Bucharest is located in Ilfov county, in Otopeni locality, and is the largest international airport in the country.

6.5 The importance of social inclusion in policy documents

This section presents those policy documents relevant for GCAP and in which social inclusion plays a part. For each policy document it is explained the extent to which social inclusion is sufficiently taken into consideration in the drafting of the policies.

Bucharest Integrated Urban Development Strategy 2021-2030: Priority 6 – “SO 5.i Foster integrated social, economic and environmental development at local level and cultural heritage, tourism and security in urban areas” makes reference to social issues. The strategy recognises current social imbalances and considers social inclusion to be one of the targets in the “What Bucharest should be” chapter under the vision for 2050 – the concept of “inclusive city” constituting Special Objective 4 of the strategy.

Bucharest 2035 Development Strategy: The Development Strategy acknowledges social imbalances at time of writing and sets ‘efficient social services, adapted to the needs of the population and appropriately distributed in space’ as one of the plan’s strategic objectives. Poverty reduction is one of the sub-strategies proposed with the creation of support hubs acting in parallel to social assistance being the means to achieve it.

Sustainable Development Strategies of the 6 sectors (administrative districts) in Bucharest (2020-2030): The sustainable district strategies of each district cover different time periods and have been prepared in different formats with different levels of support from consultants or donors. For district 5, only an urban development strategy was found, focusing on built environment, but for the rest social protection and social inclusion plays an important part. For district 1, the issue is linked to SDGs 1, 2, 5 and 10 and also has a role as a cross cutting issue in various priorities of the strategy. Sector 2 provides a wide range of social services already to the population and the social sector is a strong part of the strategy document. Social inclusion is a specific objective of the strategy of sector 3. Sector 4 provides a range of social services to the population. The priorities include the development of social services to the population. Social inclusion and provision of social services to the population is also an important part of the strategic document of Sector 6.

The Regional Operational Program 2014-2020 and Regional Program Bucharest Ilfov 2021-2027:⁵³ Social inclusion forms a large part of the ROPs, with a number of axes devoted to social infrastructure, as can be expected from such documents.

⁵³ <https://www.adrbi.ro/programe-regionale/por-bi-2021-2027>

Development Strategy of Ilfov County, 2020 – 2030: Social inclusion is incorporated in the strategic document and represents part of one of the strategic objectives - Promoting social inclusion, equal opportunities and diversity, while health and social services infrastructure are recognised as being amongst the needs of the county.

The National Plan for Recovery and Resilience (NRRP) Romania: Two of the six pillars of the Romanian NRRP focus on social issues. These are: iv) Social and territorial cohesion, v) Health and economic and social resilience.

Romania's Territorial Development Strategy (Strategia de dezvoltare teritorială a României (SDTR)): Social services and social inclusion form key priority areas of the development strategy, while they are also referred to in passing throughout the strategy.

The **National Strategy for the Circular Economy (CES)**, adopted in 2022, is sensitive to the social dimension and also mentions the role that social enterprises could play.

Social inclusion and social issues play a smaller role in the following policy documents examined:

The **Bucharest General Urban Plan** is mainly focused on the built environment, though a mention is made for social concerns. The **Energy Strategy of Bucharest** acknowledges the significance of access to energy for social cohesion, but it does not elaborate further. The **Sustainable Urban Mobility Plan (SUMP) for Bucharest – Ilfov, 2016 - 2030** mentions the importance of urban mobility for social inclusion / social equality but it does not seem to be a determining factor in the plan. The corresponding list of urban mobility projects is relevant only to the extent that all public transport projects reduce social inequality by providing better transport for all. Social aspects of the **Master plan for the water supply and Wastewater treatment in Bucharest, including the long-term investment plan 2019-2049** focus only on communities at risk of flooding, while the **Romania Water Diagnostic Report, 2018** mentions the social water tariff for the poor and again the social impact of flood risk. The **Energy Strategy of Romania 2020-2030, with the perspective of 2050** identifies the need to protect vulnerable customers and reduce energy poverty. The need for a just transition away from fossil fuels is also acknowledged, but other than this, social issues do not play a key role in the strategy. The **2021-2030 Integrated National Energy and Climate Plan** mentions social protection measures in the Strategic Action Plan, as well as the energy subsidies for vulnerable groups.

Finally, although it would be expected to play a role, no mention is made of social issues in the in the **Government Ordinance 18/2009 regarding the thermal rehabilitation of blocks of flats**.

6.6 Summary of social and economic conditions

Based on the above analysis, a few conclusions can be drawn:

- Bucharest displays the characteristics of a large city which predominates over the remainder of its Region in terms of social and economic trends, and this should inform the Green City Action Plan's design as the City's importance and influence transcend the borders of the Municipality of Bucharest.
- Not all of the socioeconomic pressures which the city of Bucharest faces are easily quantified and quantifiable, e.g., the identification and social inclusion of the Roma minority, the definition of homelessness and the identification of the homeless. This will be a challenge for GCAP because of the difficulty in properly gauging the size and characteristics of these vulnerable groups and therefore properly targeting measures which will be effective in addressing their problems.
- The relative wealth of the city skews the perception away from the socially excluded who nevertheless require measures to support them. This should not be overlooked in the actions proposed by GCAP.
- Many of the existing strategies and plans take social inclusion into account to a satisfactory degree. However, greater depth and breadth can be given to the social dimension in the future revisions of these strategies and plans and the elaboration of new ones, such as GCAP.
- Any future actions as well as the design of the GCAP should endeavour to cover the needs of the diverse social groups sharing the urban space of Bucharest. Participatory and co-design

methodologies should be employed to ensure the inclusion of the views and expectations of these diverse communities in the planning of future actions for the city, including those in GCAP.

7 Gender and vulnerable population representation and participation in city development

Social inclusion, equal opportunities and gender equality are issues that should always be considered when developing public policies, plans and programs. They are fundamental for building safe, secure and just communities, and they are at the core of sustainable development. We cannot achieve sustainable development without social sustainability and inclusion and without underlining the need to “put people first” in the development processes. Social sustainability and inclusion should promote the participation of the poor and vulnerable in the decision-making process by empowering people, by building cohesive and resilient societies and by making institutions accessible and accountable to citizens.⁵⁴ Despite this, exclusion occurs in the real world based on a variety of factors such as gender, disability status, age, sexual orientation or gender identity, ethnicity, race, migration status etc. Hence, these exclusions should never remain just in a footnote when talking about providing and accessing public goods and when elaborating public policies, and, consequently, when building smart, green and resilient cities.

Thus, one basic but very important question that should be answered when addressing the issue of social inclusion and gender equality in relation to sustainable development strategies and plans in general, and the Green City Action Plan for Bucharest, in particular is: What kind of city do we want - a city for people or “**a metropolis in European and global competition**”⁵⁵? For Romania, this question is particularly important mainly due to the dominant neoliberal ideology that is keeping the public discourse captive in the frame of efficiency, competitiveness, business, scoring and ranking, measuring performance etc.

7.1 Social inclusion

The inequalities that people are facing in Bucharest are well summarized in the following quote that describes Bucharest as: “a discriminatory city, which favours motorists to the detriment of pedestrians, which aggresses through noise, crowding and pollution the more sensitive people, the inhabitants of the outskirts compared to those in the centre. It is a city that is little or not at all friendly to the elderly or people with disabilities who are at great risk if they move around the city unaccompanied. Bucharest (...) obviously favours strong people, i.e., young or healthy adults, with a good physical tonus, able to move easily and skilful in avoiding obstacles. It obviously favours cars to the detriment of pedestrians. It is a city where traffic is interrupted when political leaders pass by, a city in which many accesses are blocked giving rise to “gated communities [...]”⁵⁶”

In order for this to change, the development of future public policy, strategies, plans and legislation should put people first by relying on relevant data regarding the social and demographic landscape of Bucharest, especially in relation to different categories of vulnerable population. A review of the policy documents, i.e., plans, policies, studies, strategies and initiatives, related to sustainable urban development and urban resilience of the city of Bucharest, shows that the issue of social inclusion is indeed addressed in some documents,⁵⁷ but it is rather absent or only briefly mentioned in others.⁵⁸

⁵⁴ See the World Bank definition.

⁵⁵ As the Integrated Urban Development Strategy of the Municipality of Bucharest states as its main goal.

⁵⁶ L. Grunberg, D. E. Neaga, Orașul non-sexist, 2013, Prouniversitaria, p. 11

⁵⁷ See, for example, the *Local strategy on social inclusion and poverty reduction in the Municipality of Bucharest 2017 – 2021, the sustainable development strategies by sectors*;

⁵⁸ see for instance ENERGY STRATEGY OF THE MUNICIPALITY OF BUCHAREST, Air quality integrated plan for Bucharest, Sustainable Urban Mobility Plan 2016-2030, WASTE MANAGEMENT PLAN FOR THE MUNICIPALITY OF BUCHAREST, MASTER PLAN FOR THE WATER SUPPLY AND SEWAGE SERVICE FOR THE MUNICIPALITY OF BUCHAREST. Although it is well known that the access to different public goods is unequal and it is a matter of social justice that needs to be addressed, the above-mentioned documents address the topic rather superficial.

For instance, the population considered to be at risk of poverty and social exclusion is defined in the Local Strategy on Social Inclusion and Poverty Reduction in the Municipality of Bucharest 2017 – 2021,⁵⁹ based on the methodology provided by the Bucharest social protection system. The strategy is listing all vulnerable categories, along with the social services available for them in Bucharest. However, women are not included in any of the listed categories.

Next, relevant data related to the socio-demographic trends of Bucharest, regarding social inclusion and exclusion, are available in Bucharest Integrated Strategy for Urban Development 2021-2030 (BISUD)⁶⁰. Important figures can be also found in other specific documents, for instance related with the important topic of **disability**. Bucharest has the largest number of persons with disabilities, amounting to 73,313 persons.⁶¹ Accessibility and mobility of disabled people in the city of Bucharest is an issue of social inclusion and sustainable development, that should also be addressed. It is well known that persons with disabilities are facing a diversity of considerable barriers in accessing different parts of the city (as physical environment), but also in accessing public goods and services. Residential buildings, workplaces, public buildings, transport infrastructure and other facilities cannot be properly and fully accessed by a large number of people with disabilities,⁶² even though Romania has also signed international agreements⁶³ that should ensure the right of these citizens to access social, educational, healthcare services, to enter the labour market, and to be as independent as possible.

When addressing the causes of limited access to the physical environment in the cities, The World Bank report “Diagnosis of the situation of persons with disabilities in Romania”⁶⁴ is underlining the lack of a strategic approach and of a coherent and integrated strategy to address the problem of interrupted access routes from home to all public spaces, the unequal access to public and residential places between the centre and the periphery of the city, the poor legislation and low standards in the field, but also the low enforcement of the existing provisions in the field.⁶⁵

The unequal development of Bucharest is best described by the concept of Marginalized Urban Areas. Although BIR has recorded the lowest proportion of people exposed to the risk of poverty or social exclusion, being far below the national average, there are still considerable discrepancies among the six sectors of Bucharest in terms of poverty, at least of the level of perception. It is important to underline here, however, that in Romania, Bucharest included, as also shown in the previous chapter, the Roma population vulnerability of facing social exclusion and of being at the risk of poverty is not only a problem of perception, but a well embedded discriminatory social reality that should be considered in all policy documents. In this regard the data provided by the European Union Agency for Fundamental Rights (EU AFR) shows that “on average, 80 % of Roma in the survey countries were at risk of poverty in 2021. That is, they live in households with an equalized income after social transfers that is lower than 60% of the median income in their country.” It is worth mentioning, however, that the smallest gaps between Roma and the general population for this indicator are in Bulgaria (47%) and Romania (53%).⁶⁶ The gender gap within the Roma population is also underlined by the AFR report: 83% of Roma girls live at risk of poverty, in comparison with 75% of

⁵⁹ Available at: <https://dgas.ro/wp-content/uploads/2017/07/PROIECT-DE-STRATEGIE-LOCAL%C4%82-PRIVIND-INCLUZIUNEA-SOCIAL%C4%82-%C5%9E-REDUCEREA-S%C4%82R%C4%82CIEI-%C3%8EN-MUNICIPIUL-BUCURE%C5%9E.pdf>

⁶⁰ Accessible at <https://estibucuresti.pmb.ro/sidu>

⁶¹ National Strategy for the Rights of Persons with Disabilities “An equitable Romania”, 2022-2027, accessible at <https://anpd.gov.ro/web/wp-content/uploads/2022/12/The-National-Strategy-for-the-Rights-of-Persons-with-Disabilities-An-equitable-Romania-2022-2027.pdf>

⁶² World Bank (2021) Diagnosis of the situation of persons with disabilities in Romania. Available at: <http://anpd.gov.ro/web/wp-content/uploads/2022/03/Diagnosis-of-the-situation-of-persons-with-disabilities-inRomania.pdf>, pag. 29;

⁶³ see Law no. 221/2010 on the ratification of the Convention on the Rights of Persons with Disabilities.

⁶⁴ World Bank (2021) Diagnosis of the situation of persons with disabilities in Romania. Available at <https://anpd.gov.ro/web/wp-content/uploads/2022/12/Diagnosis-of-the-situation-of-persons-with-disabilities-in-Romania-Summary.pdf>

⁶⁵ World Bank (2021) Diagnosis of the situation of persons with disabilities in Romania. Available at <https://anpd.gov.ro/web/wp-content/uploads/2022/12/Diagnosis-of-the-situation-of-persons-with-disabilities-in-Romania-Summary.pdf>, p. 20;

⁶⁶ European Union Agency for Fundamental Rights, Roma Survey 2021 – Main results, 2023, p. 24

Roma boys.⁶⁷ Moreover, the proportion of Roma living without tap water is also high in Romania (40%), but this a problem for a substantial part of the general Romanian population (21%).⁶⁸ Other gaps between Roma and general population are listed in The Romanian National Recovery and Resilience Plan as follows: 42% of Roma and 12% of people of other ethnicity said they had no access to electricity, running water or sanitation; the need for electricity, water and sanitation remains unmet for 84% of Roma interviewed in Romania, compared to 52% of the people of other ethnicity in the vicinity. The proportion of households connected to running water, gas, sewerage, hot water and heating is twice as high in non-Roma inhabited communities as compared to the Roma inhabited communities; only 24% of Roma have a paved or a dirt road near their home.⁶⁹

Another relevant framework for approaching the social exclusion of the different groups considered at risk in Bucharest is the one provided by the concept of disadvantaged census sector which includes the following dimensions:⁷⁰

1. the **human capital dimension** that refers to the intersection of at least two of the following vulnerable categories: active population with a low level of education, children and people with disabilities or other health problems;
2. the dimension of **employment** in the formal sector: within the vulnerable groups there is a concentration of unemployed and/or persons not employed in the formal labour market;
3. the **housing dimension** shows the concentration of at least two of the following vulnerable categories: people living in homes without electricity, people living in overcrowded spaces, respectively households faced with housing insecurity.

Applying the above framework to analysing the vulnerable groups of the City of Bucharest, the following conclusions can be drawn according to the BISUD:⁷¹

- disadvantaged areas predominate in terms of housing and human capital, while disadvantaged areas with regard to employment are rare ⁷²;
- Approximately 8% of Bucharest population are living in, district 6 being the most affected – 9,38% of the population, compared with district 5 which has 5,39% of the population living in such areas⁷³;
- The need for social housing in Bucharest is way above the existent stock⁷⁴;

Recent qualitative research⁷⁵ brings to light other particularly important aspects of living poor conditions in Bucharest, especially related to the phenomenon of evictions, such as:

- People living in precarious forms of housing (abandoned buildings, barracks) have a long history of evictions that are brutal and rapid and leads also to the loss of the few possessions that this vulnerable people have;
- The lack of identity documents is a real problem for some of the evicted, being an important barrier to getting out from such a situation;

⁶⁷ European Union Agency for Fundamental Rights, Roma Survey 2021 – Main results, 2023, p. 26

⁶⁸ European Union Agency for Fundamental Rights, Roma Survey 2021 – Main results, 2023, p. 56

⁶⁹ European Union Agency for Fundamental Rights' (FRA) Fundamental Rights Report 2018, The National Recovery and Resilience Plan, p. 86;

⁷⁰ The Integrated Urban Development Strategy of the City of Bucharest, p. 74

⁷¹ The Integrated Urban Development Strategy of the City of Bucharest, p.75 - 76

⁷² The Atlas of Marginalised Urban Areas in Romania, Table 16, Distribution of the urban population according to the type of residence area: Bucharest-IIfov p.61, accessible at <https://documents1.worldbank.org/curated/en/857001468293738087/pdf/882420WPOP1430085232B00OUO090OAtlas.pdf>;

⁷³ The Atlas of Marginalised Urban Areas in Romania, Table 16, Distribution of the urban population according to the type of residence area: Bucharest-IIfov p.61, accessible at <https://documents1.worldbank.org/curated/en/857001468293738087/pdf/882420WPOP1430085232B00OUO090OAtlas.pdf>;

⁷⁴ Bucharest Urban Development Strategy, p.61;

⁷⁵ Irina Zamfirescu, Precarious and social housing in Bucharest. Many papers, few homes (LOCUIREA PRECARĂ ȘI LOCUIREA SOCIALĂ ÎN BUCUREȘTI- hârtii multe, locuințe puține), 2023, pp. 5-9, accesible at [chrome-extension://efaidnbnmnnibpcajpcgiclfindmkaj/https://activewatch.ro/documents/261/Raport_locuire_Bucuresti.pdf](https://efaidnbnmnnibpcajpcgiclfindmkaj/https://activewatch.ro/documents/261/Raport_locuire_Bucuresti.pdf);

- There are also situations of self-evacuation that are not caught in the statistics and that bring to light different forms of violence faced by people in such a vulnerability (threats);
- The process of obtaining social housing is difficult, and due that the number of complete files submitted to the sector town halls and/or to the General Town Hall does not represent an indicator of the real need for housing support ;
- Women who live in such poor housing are more affected considering that they have to household chores (the lack of water and electricity) and take care of numerous family members.

7.2 Gender equality

Romania is not performing well when it comes to gender equality. The country ranks 26th in the EU on the 2022 Gender Equality Index.⁷⁶ Its score is 14.9 points below the EU score. At a global level, Romania ranks 88th out of 148 countries according to the Global Gender Inequality Report 2023.⁷⁷ Moreover, in both rankings, Romania decreased compared to previous years, which shows a worsening of women's situation in accessing and practicing equal rights and opportunities.

A 2023 research report,⁷⁸ also points out worrying tendency and gender gaps related to labour market participation. For instance, the difference between women and men in terms of participation in the labour market is increasing (20.1% in the EUROSTAT Gender Statistics, data for the year 2021).⁷⁹ The authors of the report are underlining the fact that this gap is the largest in the EU and is also the largest nationally since 1989. Furthermore, many other country reports and analyses have highlighted the poor implementation of legislation and a lack of gender mainstreaming in Romania. Very few ministries of the Romanian Government have transposed legal provisions or linked their sectoral strategies to gender equality objectives.⁸⁰

The data collected based on the strategies officially listed by the General Secretary of the Romanian Government from January to the beginning of March 2023 shows that out of the 55 strategies analysed, only 5 scored 1 (meaning gender mainstreaming⁸¹ – see the OECD's qualitative tracking methodology⁸²), indicating that gender equality is a significant and assumed objective but not the primary reason for undertaking the project or program.⁸³

In this context, a review of the policy and strategic documents related to the city of Bucharest sustainable development, undertaken as part of developing Bucharest GCAP, shows the following:

⁷⁶ The index is based on the analysis of gender gaps adjusted for overall levels of achievement and ranges from 1 for total inequality to 100 for full equality. It combines gender indicators, both qualitative and quantitative, into a single measure according to a framework developed by the European Institute for Gender Equality. Source: <https://eige.europa.eu/gender-statistics/dgs/browse/index#:~:text=The%20Index%20assigns%20scores%20to,to%20100%20for%20full%20equality.>

⁷⁷ Global Gender Gap Report 2023, p.11

⁷⁸ I. Băluță, A. Dumitru, Analysis of gender equality policies in Romania. *Gender mainstreaming, politic and economic empowerment of women, and gender budgeting: 2016 – 2022*, 2023, accessible at <https://anes.gov.ro/wp-content/uploads/2023/08/Analiza-privind-politicile-egalitatii-de-gen-in-Romania.-Abordarea-integratoare-de-gen-imputernicirea-politica-si-economica-a-femeilor-bugetarea-de-gen-2016-2022.pdf>, p. 10

⁷⁹ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Gender_statistics#Labour_market

⁸⁰ Băluță I., Dumitru A., *Analysis of gender equality policies in Romania. Gender mainstreaming, politic and economic empowerment of women, and gender budgeting: 2016 – 2022*, 2023, available at <https://anes.gov.ro/wp-content/uploads/2023/08/Analiza-privind-politicile-egalitatii-de-gen-in-Romania.-Abordarea-integratoare-de-gen-imputernicirea-politica-si-economica-a-femeilor-bugetarea-de-gen-2016-2022.pdf>, p. 13; See also Băluță, 2014; GREVIO Report; Diagnostic analysis of gender equality in Romania during 2014-2019; Băluță & Tufiş, 2022, Neaga 2023

⁸¹ Which involves integrating gender considerations across all levels of strategic planning.

⁸² REGULATION (EU) 2021/1060 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL sets a three code quantitative methodology for assessing gender equality, but it also recommends the use of the OECD qualitative tracking methodology which is based on the use of a gender equality policy marker. The OECD Development Assistance Committee gender equality policy marker is also a key monitoring and accountability tool in the context of the 2030 agenda SDG 5 which is assumed as a commitment in the EU in its last strategic plan adopted (COM(2020) 152 final: 2).

⁸³ D. E. Neaga, (Un)Committed to Gender Equality – An Overview of Strategic Governmental Planning in Romania, Civil Review Special issue - Crisis society and politics in contemporary world, 2023, p. 128

- There is a significant lack of sex disaggregated data that would allow the measurement of differences between women and men on various social and economic grounds, despite being basic information needed for placing gender statistics at the foundation of public policies to better serve both women's and men's interests.
- The gender sensitive perspective is rather absent in most of the documents analysed. Gender sensitive analysis is needed on the one hand, to comprehend the present situation for the groups concerned and, on the other hand, to analyse how this situation could evolve without public intervention. The analysis should measure, as much as possible, how the planned *intervention* is expected to change the existing situation and what is the impact on the effective equality between women and men.
- The lack of gender sensitive analysis is in direct relation with the absence of a gender sensitive perspective integrated in the design of the projects/programs developed for the city of Bucharest.
- There is a quasi-absence of explicit gender equality objectives backed by gender-specific indicators. **If present, the objectives/measures are almost always related to a conservative/classic topic and gender roles like domestic violence, women's access to labour market, sexual and reproductive rights**, which are very often addressed in relation to demographic concerns.
- Finally, there is a weak commitment for monitoring and reporting on gender equality outcomes and results collected through the evaluation phase of the policies, projects, strategies, plans etc.

There is, however, one exception that is worth mentioning due to the opportunity of using this document as a good practice, namely The **Sustainable Development Strategy of Sector 1 of the Municipality of Bucharest 2020-2030 and its accompanying Action Plan** which contains:

- Gender sensitive objectives and indicators designed for short, medium and long term, such as:
 - the number of projects representing women's interests;
 - the number of support centres for victims of domestic violence;
 - the number of information campaigns in communities and neighbourhoods;
 - the number of projects submitted by women and funded;
- Sex disaggregated data and gender sensitive analysis used in order to identify problems and to set priorities;
- Intersectional approach (Roma women, women with disabilities, migrant women, women with HIV/AIDS, older women and homeless women);
- Gender sensitive analysis used beyond the traditional/feminized topics like violence, sexual and reproductive issues (e.g., natality and fertility) or labour market participation.

Box 1 below, presents a few excerpts from the Sustainable Development Strategy of Sector 1 illustrating the way in which the gender and social inclusion of vulnerable categories are taken into account. This can be regarded as an example of good practice for the elaboration of new policies and the revisions of the existing once.

Box 1: Good practice of gender mainstreaming in the Sustainable Development Strategy of Sector 1

- ✓ “Ensuring access to safe, affordable, accessible and sustainable transport systems for all, in particular by expanding public transport networks, with particular attention to the needs of those in vulnerable situations, women, children, disabled and elderly people”
- ✓ “men report a much higher proportion than women that they engage in voluntary activities in NGOs”
- ✓ “risk of poverty or social exclusion, with families with children, the unemployed, the inactive, atypical workers, the Roma, older women and people with disabilities among those the most at risk”
- ✓ “women’s precarious work”

Regarding aspects of urbanism and urban landscape in Bucharest, some important conclusions of the research⁸⁴ on gender and urbanism related to the city can be summarize as follows:

- Most of Bucharest streets bear masculine names, i.e. either names of masculine personalities or masculine meaning. The origin of the names with masculine meaning are more numerous, more diversified and more anchored in present – e.g., names of professions. The names with feminine meaning remain rather anchored in stories, myths, or clichés. An interesting category of streets with women names are the one that refer to women by association with men personalities – e.g., mother of or daughter of.⁸⁵
- The Bucharest’s statues and monuments are generally conveying the message that men are making the relevant public history and culture of Bucharest, they are (stereotypically) active, brave, and strong; women and their lives and achievements are not equality worth being represented in statues. In the few occasions when women are portrayed in statues they have to be (stereotypically) young and beautiful, or wives or mothers of nation’s important men; traditional gender roles are well preserved also in statues and men artists are also dominant in the field;⁸⁶
- Bucharest’s public authorities have shown fear and hostility towards citizens’ freedom of speech and their rights to protest. Feminist public demonstrations have been approved by the City Hall, but the approval decisions placed the manifestations in marginal squares or streets, making them less visible;⁸⁷
- The cyclists’ community of Bucharest faces significant difficulties related to the lack of infrastructure but also with regards to how they are perceived by other traffic participants. In particular, female cyclists are even more exposed to harassment and to different types of aggression as long as they do not conform (e.g., by wearing a skirt or high heels) with the classic, strongly masculinized image of a cyclist. A woman’s body is more exposed on a bike, and this should be considered also when designing bike lanes as an element of a sustainable city that should also be an inclusive city.⁸⁸

7.3 Gender backlash

Finally, great attention should be dedicated to the global and national context around what is known as “gender backlash.” The global gender backlash has been well documented in the last years. It is important to underline that the detractors’ voices come from very different, sometimes contrasting,

⁸⁴ Laura Grünberg, EDITORIAL: (Non) Sexist Cities - Mapping a New area of Research for Gender Studies in Romania, *Analize – Journal of Gender and Feminist Studies*, ISSUE NO. 3 (17) /2014, Genders, Diversity and Urban Space;

⁸⁵ I. Voicu, *When steets don’t have names of women. Gender analysis of names streets/squares/passages in Bucharest*, in L. Grunberg, D.E. Neaga, *The (non)sexist city*, Prouniversitaria, p. 24;

⁸⁶ L. Grunberg, Corina Brăgaru, *Monuments and statues in Bucharest: On the symbolic construction of gender*, in L. Grunberg, D.E. Neaga, *The (non)sexist city*, Prouniversitaria, p. 34;

⁸⁷ T. Mihai, *How to protest in Bucharest? On the freedom of public assembly on the banks of Dimbovița*, in L. Grunberg, D.E. Neaga, *The (non)sexist city*, Prouniversitaria, p. 45;

⁸⁸ A. Manta, *Biking on skirt: a plea for a bike and gender friendly Bucharest*, L. Grunberg, D.E. Neaga, *The (non)sexist city*, Prouniversitaria, p. 99

ideological positions, exhibiting very different, strongly context-dependent attack strategies. Different groups of gender opponents and topics of contestation have been identified by scholars over time. For instance, Verloo (2018)⁸⁹ identifies the oppositional actors among politicians, governments, citizens, policy makers and churches. The author also frames the political arenas of the fights, namely parliaments, courts, the Internet, while analysing different and opposing visions of gender and equality promoted in different contexts. Other authors⁹⁰ outline the variety of actors involved in the global anti-feminist movement: “believers and non-believers, nationalists and universalists, populists who demonize global capital and traditional Reagan/Thatcher-style conservatives with a neocon love for the market.”

The anti-gender ideology works in Romania also as an ideological glue for a variety of conservative groups (around 30 Romanian NGOs) that have become visible and have taken the shape of the Coalition for Family. In 2018, this Coalition initiated a national referendum for changing the Constitution of the country to only recognise the institution of the marriage when this is between a man and a woman. Other similar initiatives were the “rejection or substantial modification of bills aimed at the introduction of sex education into the school curriculum,”⁹¹ which greatly restrict the already quasi-non-existent rights of the LGBTQI+ community in Romania. It is very important to emphasize these aspects because they create the context of anticipating some challenges and obstacles that may emerge when designing the GCAP for The Municipality of Bucharest.

7.4 Summary of gender and vulnerable population

Although Bucharest is a dynamic, vibrant city and the main engine of the economic growth in Romania, although the GDP per inhabitant adjusted to purchasing power ranks Bucharest alongside capitals such as Warsaw, Rome, Madrid, Berlin, Athens⁹² and although unemployment rate is much reduced compared to other Romanian urban areas (1.2% of the total population compared to 10% of the urban population in the country⁹³), inequalities and social exclusion are still present in the city. Various minority categories are or are becoming vulnerable in the city, in complex contexts that bring into question their access to economic, social and cultural resources, their access to public infrastructure such as transportation, nurseries, kindergartens, schools, healthcare system etc., their visibility and recognition,⁹⁴ or the access to decisions by those whose interests are represented in the policy documents. **In this context, a perspective that substantially integrates aspects of equity, diversity and inclusion in the design of GCAP is vital if the plan aims to put people at the centre and ensure ownership of the plan by city’s inhabitants.** In order to do so it is fundamental to account for the following:

- Citizens have diverse interests based on gender, age, sexual orientation, ethnicity, religion, social class, disability etc. These variables must be taken into account both when performing diagnostic analyses, for which collection and analysis of disaggregated data is highly needed, but also when designing solutions and, naturally, in the evaluation and monitoring stages of the policy cycles;
- It is also equally important, on the one hand, to recognize and make visible which are the vulnerable communities, and on the other hand, to understand that a perspective based on equality, diversity and inclusion is essentially reflecting the values, importance and potentials of populations who are usually underprivileged, discriminated and/or marginalized in the sustainable development process.

⁸⁹ Verloo, M.(ed). (2018). *Varieties of Opposition in Europe*. Routledge: New York.

⁹⁰ Graff A., Kapur S. R, Walters D. (2019). “Introduction: Gender and the Rise of the Global Right.” *Signs: Journal of Women in Culture and Society* 44, issue 3, p. 541

⁹¹ I. Băluță, A. Dumitru, Analysis of gender equality policies in Romania. *Gender mainstreaming, politic and economic empowerment of women, and gender budgeting: 2016 – 2022, 2023*, accessible at <https://anes.gov.ro/wp-content/uploads/2023/08/Analiza-privind-politicile-egalitatii-de-gen-in-Romania.-Abordarea-integratoare-de-gen-imputernicirea-politica-si-economica-a-femeilor-bugetarea-de-gen-2016-2022.pdf>, p. 13

⁹² The Integrated Urban Development Strategy of the City of Bucharest, p. 21

⁹³ The Integrated Urban Development Strategy of the City of Bucharest, p. 107

⁹⁴ The memory of the city and its representations reflect what is considered valuable and important. In this context many minority communities are either invisible, or stereotypically represented.

8 Conclusions and takeaways

This report has attempted to draw a coherent picture of the urban and policy framework affecting the City of Bucharest from several perspectives: policy that governs the environmental performance of the city, the climate strategies and plans, elements of the governance of the City with its 6 administrative jurisdictions, its financial capabilities, as well as the social, economic and vulnerable population conditions. These diverse perspectives are meant to provide the status-quo from which the development of GCAP for Bucharest will commence.

The main findings of this analysis are:

- The technical analysis of the existing policy framework at city level has shown that **Bucharest's most problematic domains/areas** that need urgent **attention are the open green spaces and climate change adaptation** for which the policy framework is non-existent
- Air quality, soil, biodiversity, water use and climate change mitigation benefit from some dedicated policies at local level, but **their implementation is flawed**.
- The best performing environmental area in Bucharest is the water bodies and drinking water.
- The city has **potential for solar power generation**.
- In parallel to the local public administration authorities of Bucharest Municipality and its six districts, several Associations for Intercommunity Development (AID) for certain areas and domains have been established. However, the **modality of delegating the responsibilities from the City and / or the six districts to the AIDs is different for each AID**.
- **GHG inventory data is currently unavailable**. Based on the limited data, the main source of emissions in Bucharest is the energy sector, followed by the transport and industry sectors. Together with the buildings sector and solid waste sector of Bucharest, they made a large contribution to the NDC of Romania in 2020.
- From the financial point of view, Bucharest has shown signs of **improved financial health since 2018**. The Stable Outlook, as suggested by credit rating analysis, indicates that the **city's financial situation is expected to remain stable** in the near future, providing a foundation for future planning. This positive outlook, however, does not consider the disparity between revenues and responsibilities between the general municipality and sectors. This could significantly diminish the municipality's authority to undertake investments.
- Exploring new revenue avenues such as foreign capital investments is crucial for further enhancing financial independence of the city. In addition, the city **shows high flexibility in managing expenses**, providing an alternative means to reduce spending and allocate resources efficiently. Potential additional financial operations and **continued access to EU funding sources also present opportunities for securing resources for priority areas**.
- Regarding funds allocated for **green and climate initiatives at the City level, these remain scarce and there is a lack of detailed information** regarding the current implementation strategies and allocation methods in this area.
- Many of the existing strategies and plans designed for Bucharest take social inclusion into account to a satisfactory degree, **but the depth and breadth of this inclusion can be improved in future documents or revisions** of the existing ones.
- Overlooking social inclusion is due to the fact that **relative wealth of the city skews the perception away from the socially excluded**
- The **identification and quantification of the social pressures on the vulnerable groups** such as the Roma minority or the homeless is difficult.

- **Bucharest exhibits sizeable inequalities and social exclusion:** various minority categories are economically, socially and even culturally vulnerable, with problematic access to public infrastructure such as transportation, nurseries, kindergartens, schools, health system etc.

A Annex A: Summary of the environmental and sectoral performance of the policy framework

A.1 Environmental performance of policy

Table A-1 summarizes the findings of this section, providing traffic-light coding for each of the environmental sectors, from the perspective of the performance of the existing policies and initiatives. Thus, **green colour** implies that policy framework exists, and it is well implemented, with no significant need for further expansion; **orange colour** means that a policy framework exists, but implementation challenges have been observed and/or existing policies where not sufficient to solve the issue at stake; **red colour** codes the situation in which a policy framework is non-existent.

Table A-1: Environmental performance of the relevant policies, strategies and incentives

Environmental sectors	Arguments for the qualification of the performance
AIR QUALITY	<p>There is no valid Integrated Plan for Air Quality for Bucharest Municipality and a Plan for Maintaining of Air Quality for Bucharest Municipality; new plans <i>need to be adopted</i>.</p> <p>Following the adoption of the MO no. 685/2023, MEWF has informed the Buchares Municipality that the air quality plans shall be initiated as follows:</p> <ol style="list-style-type: none"> 1. <i>Integrated Plan for Air Quality for the indicators: NO₂ and NO_x, PM₁₀ and PM_{2.5};</i> 2. <i>Plan for Maintaining the Air Quality for the indicators: SO₂, CO, C₆H₆, Pb, As, Cd și Ni.</i> <p>According to the annual reports on the implementation of the 2 Plans previously in force (i.e., the Integrated Plan for Air Quality for Bucharest Municipality 2018-2022 and the Plan for Maintaining of Air Quality for Bucharest Municipality 2018-2022), Bucharest Municipality failed to implement the plans 100%.</p> <p>Additionally, EU referred Romania to the European Court of Justice for failing to implement Air Quality Directive 2008/50/CE, Articles 13 (1) & Annex XI and 23(1) & Annex XV – PM10, for Bucharest Municipality. Romania has been condemned by the Court in Case C-638/18 for systematically and constant exceedance of the limit values for micro particles (PM10) in Zone RO32101 (Bucharest, Romania) at least for 2007 – 2016.</p>
WATER BODIES, DRINKING WATER	<p>Although there is no specific requirement for Bucharest Municipality of having a specific Plan for water management at local (municipality) or regional (Ilfov County) level, all the legal requirements concerning the water bodies and drinking water are currently met. However, given the particularities – 2 rivers crossing the Capital (Dâmbovița and Colentina), several lakes, the legislator (either at national or regional / local level) could take into consideration developing such plans.</p>

SOIL	<p>Bucharest does not have a strategy for soil protection as such, even if measures are being provided in different pieces of regulation, strategies and or action plans, such as the “Bucharest Integrated Urban Development Strategy 2021-2030”, which mentions “REDUCTION OF POLLUTION AND IMPROVEMENT OF AIR, WATER AND SOIL QUALITY” as sectoral program under the strategic Objective 3. Sustainable City; however, there is no measure or action dedicated to soil pollution prevention, soil protection or regeneration, as such.</p> <p>Research performed sporadically during the most recent decade, with respect to soil pollution with chemical substances⁹⁵ or with biological pathogens⁹⁶ highlight the status of pollution of soils in Bucharest and map changes produced between 2015 and 2020, raising concerns about the increase of polluted areas. pH of soil, Fe, Cu, Pb, Zn, Cr, Cd, Chlorides content in soil are increasing.</p> <p>At regional level, there is no special vision with respect to soil, especially if urbanization on agricultural land and development on horizontal is considered; however national legislation (Order no. 756/1997 for the approval of the Regulation on the assessment of environmental pollution, Law no. 74/2019 regarding the management of potentially contaminated sites and contaminated sites) offer the legal framework with respect to soil pollution.</p> <p>Also, the National sustainable Development Strategy and Action Plan includes objectives with respect to soil, including prevention of soil degradation and erosion and soil restoration.</p>
WATER USE	<p>Bucharest does not have a strategy for water supply and use as such, but “Bucharest Integrated Urban Development Strategy 2021-2030”, includes “REDUCTION OF POLLUTION AND IMPROVEMENT OF AIR, WATER AND SOIL QUALITY” as sectoral program under the strategic Objective 3. Sustainable City Development actions with respect to water supply.</p> <p>Also, the city needs to have a Water safety plan, as requested by the Law no. 458/2002. Responsible for the preparation of such a plan is the water producer, as per the provisions of the Order no. 2.721/2.551/2.727/2022 regarding the approval of the General Framework for water safety plans, as well as for establishing the responsibilities of the competent authorities and water producers and/or distributors regarding the preparation, evaluation and approval of water safety plans.</p> <p>At regional level, there is no special vision with respect to water use in cities.</p>

⁹⁵ The current state of the quality of urban soils in Bucharest, <https://doi.org/10.21698/rjeec.2020.225>

⁹⁶ Soil Contamination with Canine Intestinal Parasites Eggs in the Parks and Shelter Dogs from Bucharest Area <https://doi.org/10.1016/j.aaspro.2015.08.103>

<p>OPEN / GREEN SPACE</p>	<p>Although the law requires it and over the years the municipality has been fined for this, Bucharest City Hall still does not have a Register of Green Spaces today. Currently, there is a Registry that was created in 2011 through a service contract, not updated and not approved by the General Council of the Municipality of Bucharest.</p> <p>In year 2020, the Environmental Guard of the Municipality of Bucharest fined the General City Hall with 100,000 lei for the lack of the Register of Green Spaces and, in 2021, the Court decided that the Municipality must create/approve the Register. Also, in 2021, the institution of the Public Lawyer recommended the Municipality to make the necessary diligences and ensure the minimum of 26 sqm of green space per inhabitant.</p> <p>The problem of preparing the Registry and implementing the necessary actions is even more difficult to solve as the municipality lacks an updated General Urbanistic Plan (PUG) and or an up-to-date cadastre registry. With respect to PUG, the preparation is currently under development, and the expected completion is year 2024.</p> <p>At Region level, there is no special requirement with respect to green space/green infrastructure and the national level requirements apply: Law no. 24/2007 covering the regulation and administration of the green space from the interior of the localities, republished, with subsequent changes and additions.</p> <p>Even though at national level, there is, basically, no city that satisfies the requirement of 26 sqm/capita, this should rather be of concern than give any comfort and taking no action.</p>
<p>BIODIVERSITY</p>	<p>Bucharest Municipality does not have a policy or specific legislation covering the elements related to biodiversity, management of natural protected areas, conservation of natural habitats, flora and fauna. However, in 2016, by Governmental Decision – GD no. 349/2016, it has been established <i>the first natural urban park in Romania, Vacaresti Natural Park</i>, which is located 5 km from the Bucharest city centre, being the biggest and compact green area in Bucharest, covering more than 183 ha.</p> <p>The draft for amending the EGO no. 57/2007 (currently the framework law for biodiversity and natural protected areas in Romania) introduces, <i>inter alia</i>, a new concept – natural urban protected areas and other NPAs established within the administrative territorial units (ATUs). Local Councils, e.g., are entitled to establish natural urban protected areas and NPAs of local interest. For the NPAs of national interest, the endorsement from the Local Councils is part of the documentation for the establishment of such NPA, but it has a consultative attribute. NPAs of local interest can be established only on the public or private property of the ATUs. This is however a draft EGO.</p> <p>National Strategy on Forestry (2030), approved by Governmental Decision no. 1227/2022, is promoting some objectives and measures relevant to the urban environment, such as: Objective 7.6. Increasing of the urban and peri-urban forests so as to ensure the connectivity of the landscape, by the end of 2026. One of the envisaged measures is referring to installing of urban / peri-urban forests and establishing green corridors. This concept has been further developed within the draft for the New Forest Code, which is currently under public consultation.</p>

CLIMATE CHANGE MITIGATION	<p>Cities in Romania do not have mandatory legal targets for the decrease of their GHG emissions, however they are affected by the policies regulation the different sectors of activity (i.e., The Long-Term Strategy, the National Energy and Climate Plan, the Energy Efficiency in Buildings Directive, etc). Cities can join different EU/International initiatives and assume voluntary targets.</p> <p>Five of the six sectors of Bucharest and the municipality have signed the Covenant of mayors,⁹⁷ assuming the minimum required targets (i.e., 40% by 2030): Sector 1 (January 29, 2009), Sector 2 (February 20, 2018), Sector 3 (August 25, 2017), Sector 4 (January 22, 2018), Sector 6 (January 30, 2018) and the Municipality of Bucharest (May 16, 2011). However, most of them are outdated, and there is no public information on the intention of updating such plans. Moreover, there is no public information on the results of the monitoring of the implementation of the plans.</p> <p>However, there is no information publicly available regarding any intention on preparing a plan for the Bucharest Municipality, either a framework plan that would accommodate also the District plans (GHG emission reduction targets at district level) and the Municipality, with mandatory targets for decreasing the GHG emissions, or a plan that would establish reduction targets at Bucharest Municipality level as a whole.</p>
CLIMATE CHANGE ADAPTATION	<p>There is no valid climate change plan, either at Bucharest Municipality level, or the Districts' level, containing adaptation measures, although, for example, the extreme weather events increased in frequency and intensity, as well as in recovery costs. There is no preventive and visionary approach towards adapting to climate change and increasing the resilience of Bucharest Municipality in the context of climate change.</p>

A.2 Sectoral policy performance by specific indicators

Table A-2 to Table A-8 below summarize the findings of this section, providing traffic-light coding for each of the GCAP sectors analysed from the policies' performance perspective, based on specific indicators, respectively. Thus, **green colour** implies that a policy framework exists, and it is well implemented, with no significant need for further expansion; **orange colour** means that a policy framework exists, but implementation challenges have been observed and/or existing policies where not sufficient to solve the issue at stake; **red colour** codes the situation in which a policy framework is non-existent.

The codes #36, #37 etc. mentioned in the second columns of the tables below, for each GCAP sector (Transport, Buildings, Industry, Energy, Water, Solid waste and Land-use) represent the indicators provided for by the EBRD Green Cities – Green City Action Plan methodology, Annex I – Pressure-State-Response Indicators for Green Cities – Response indicators table.

⁹⁷ <https://eu-mayors.ec.europa.eu/en/signatories>

Table A-2: Transport sector - policy performance

	#	Indicator	Description and performance of relevant polies, strategies, incentives and other response measures.
TRANSPORT	36	High-polluting vehicles are regulated / Energy-efficient vehicles are incentivised through fiscal instruments	<p>NRRP, R1.1. Decarbonization of road transportation according to the "polluter pays principle", which consists into promoting of the legislative framework for the implementation of the new tax & fees system based on the "polluter pays principle" and of the principle of environmental taxation, which will include the following measures:</p> <ul style="list-style-type: none"> • Promoting the law on taxation based on the distance for heavy goods vehicles (trucks) and increased taxation for the owners of the highest polluting passenger cars (vehicles / buses / coaches, based on the "polluter pays principle" – deadline Q2 2023; • Promoting the law on incentivising the use of the non-polluting vehicles and programmes for renewing the auto parks by household users, private companies and public institutions – deadline Q 2024; • Encouraging the procurement and use of new non-polluting vehicles by public entities, with an increase of at least 3% more than the threshold established by the Directive on non-polluting vehicle – deadline Q4 2025; • 250 000 polluting cars disposed by Q2 2026; • Increasing the number of zero emissions vehicles by Q1 2026 with a number of 29.500 cars; • Increasing the number of recharging stations for electric vehicles, at national level, from 1836 to 30.000 by Q2 2026.
	37	Extension and improvement of public and non-motorised transport is planned and supported through investment in place	<p>It is provided for by the Sustainable urban mobility plan 2016 – 2030 for Bucharest – Ilfov region. However, the financial resources are not 100% secured.</p> <p>In addition to that, please also see above.</p>
	38	Public and non-motorised transport is promoted through Information and awareness campaigns	<p>It is provided for by the Sustainable urban mobility plan 2016 – 2030 for Bucharest – Ilfov region. However, the measure has not been fully implemented.</p> <p>In addition to that, please also see pt. 36 above.</p>
	39	Traffic demand is managed (congestion)	<p>It is provided for by the Sustainable urban mobility plan 2016 – 2030 for Bucharest – Ilfov region. However, the measure has not been fully implemented.</p> <p>In addition to that, please also see pt. 36 above.</p>

		charges, smart technologies)	
	40	Public transport emergency management (in publicly and/or privately run networks) is planned and tested	It is provided for by the Sustainable urban mobility plan 2016 – 2030 for Bucharest – Ilfov region, Measure G-2. However, the measure has not been fully implemented. In addition to that, please also see pt. 36 above.
	41	System integration is sought and supported (integrated ticketing, user information, open data and traffic control)	It is provided for by the Sustainable urban mobility plan 2016 – 2030 for Bucharest – Ilfov region – Measure G – 3. However, the measure has not been fully implemented. In addition to that, please also see pt. 36 above.

Decarbonization of road transportation according to the "polluter pays principle" it is provided for by the NRRP - R1.1,⁹⁸ which includes promoting of the legislative framework for the implementation of the new tax & fees system based on the "polluter pays principle" and of the principle of environmental taxation, which will include the following measures:

- Promoting the law on taxation based on the distance for heavy goods vehicles (trucks) and increased taxation for the owners of the highest polluting passenger cars (vehicles / buses / coaches, based on the "polluter pays principle" – deadline Q2 2023;
- Promoting the law on incentivising the use of the non-polluting vehicles and programmes for renewing the auto parks by household users, private companies and public institutions – deadline Q 2024;
- Encouraging the procurement and use of new non-polluting vehicles by public entities, with an increase of at least 3% more than the threshold established by the Directive on non-polluting vehicle – deadline Q4 2025;
- 250 000 polluting cars disposed by Q2 2026;
- Increasing the number of zero emissions vehicles by Q1 2026 with a number of 29.500 cars;
- Increasing the number of recharging stations for electric vehicles, at national level, from 1836 to 30.000 by Q2 2026.

Although the legislative framework is encouraging the promotion of the aforementioned measures, at the same time Romanian authorities are still on time to adopt most of the measures. At the same time, the specific legislation is still not in place, so there is space for policy development and improvement.

At local level, the Sustainable urban mobility plan 2016 – 2030 for Bucharest – Ilfov region included all the measures highlighted as indicators, but there is still room for both improvement and implementation.

⁹⁸ <https://mfe.gov.ro/pnrr/>

Table A-3: Buildings sector - policy performance

	#	Indicator	Description and performance of relevant polies, strategies, incentives and other response measures.
BUILDINGS	42	Green building is promoted through standards and fiscal incentives	NRRP ⁹⁹ – Green Transition – Component C5 – Renovation wave – General objective – transition to green and smart buildings R1 – promoting the simplified legislative framework to support the implementation of the investments supporting the transition to green and resilient buildings – promoting the amendments to the EGO no. 18/2009 for improving the energetic efficiency of the residential buildings; the proposed deadline was Q4 2022; to date, the legislation has not been amended for this purpose.
	43	Public and private investment in energy efficiency in buildings	No specific disposition
	44	Metering and billing for personal energy use is regulated	Law no. 121/2014 on energy efficiency is providing for the obligation to include metering and billing for personal energy use.
	45	Support schemes for building renovation established (amounts committed)	Ministry of Development, Public Works and Administration adopted Ministerial Order no. 434/2022 on The Minimis State Aid scheme: “Support granted for the implementation of the NRRP Integrated Renovation / Moderated or significant energy renovation of housing buildings”, for the period 2022-2026. The eligible applicants are the Administrative Territorial Units (ATUs). The amounts committed reach 64.187.500 Euro, and the estimated number of the enterprises supported via this the minimis state aid programme is of 320.
	46	Building inspectors employed and trained	There is no specific legislative requirement for the building inspectors to be trained in this field and employed. However, there is a general obligation for each public authority and institution to have an internal strategy for the professional development.

Most of the indicators highlighted in this section are supported by the NRRP conditions, however, the implementation is falling behind. There are some specific pieces of legislation covering some indicators, for example the support schemes for building renovation established (a state aid regulation), however, there is no information on its implementation. Therefore, there is quite some room for improvement and implementation.

⁹⁹ <https://mfe.gov.ro/pnrr/>

Table A-4: Industry sector - policy performance

#	Indicator	Description and performance of relevant polices, strategies, incentives and other response measures.
INDUSTRIES	47	<p>Energy efficient industrial machinery is regulated and incentivised through fiscal instruments (electricity, heat, industrial processes)</p> <p>Industrial sector is subject to regulation at EU and national level; therefore, the city has little influence or mechanisms it can use for the energy efficiency in industry.</p> <p>Investors in industry are bound by the provisions of the EED and, also, many of them are covered by the provisions of the EU ETS or the regulation regarding the use of Renewable energy.</p> <p>At national level, incentives received/acquired by the actors active in industry refer rather to lower capital costs with energy (and /or EUAs) and/or less penalties in case of lack of conformity with the requirements.</p> <p>Especially after the recent (price) crisis in energy it is hard to believe that the actors active in the industrial sector are not aware and willing to save on their energy bills.</p>
	48	<p>Energy efficient industrial technologies (electricity, heat, industrial processes) is supported through private investment</p> <p>Romania enacted Governmental Emergency Ordinance No. 112/2022 (GEO 112), which establishes, amongst others, a financial support scheme for large, medium and small companies aimed at stimulating investments in energy efficiency in Romania</p> <p>According to GEO 112, the EE Financial Scheme can be accessed by:</p> <ul style="list-style-type: none"> • Large companies with more than 250 employees and a net yearly turnover of more than EUR 43 million; • Small and medium enterprises (SMEs) and microenterprises with the observance of EU Commission Regulation No. 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty. <p>The companies must be active in production of goods or provision of services except for real estate investments, consultancy services, technical-assistance services and activities included in Annex No. 1 of Governmental Decision No. 780/2006 on establishing the greenhouse gas emissions trading scheme</p>
	49	<p>Material efficiency of new built industrial facilities and waste recycling is regulated and incentivised through fiscal instruments</p> <p>There is no special treatment, as policy in place, for new industrial facilities; incentives may be negotiated from case to case. However, the requirements of the EU Taxonomy combined with those of the Climate change delegated act and the new trends in financing may trigger advantages for cleaner and more material efficient constructions.</p>
	50	<p>Industrial wastewater treatment / reuse /</p> <p>There is no special treatment, as policy in place, for treatment and reuse of wastewater; moreover, the cost of fresh industrial water is lower (0.23 RON/m³- from Arges river and 0.97 RON/m³-</p>

	recycle is promoted through regulations and fiscal incentives	from Colentina river) than the one for domestic consumption (5.05 RON/m ³); ¹⁰⁰ therefore there is even no economic incentive for water treatment and reuse.
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Better monitoring and statistics can be set-up so that data is used for further fine-tuning of the mechanisms and systems.

Table A-5: Energy sector - policy performance

	#	Indicator	Description and performance of relevant polices, strategies, incentives and other response measures.
ENERGY	51	Coverage and quality of electricity and heat supply is improved through investment	For the users connected to the district heating system, part of the heat price is heavily subsidised (750 out of 1100 RON/Gcal or 68.2 %), while the consumers owning their own heating boilers do not benefit from this type of incentives. Electricity consumption is not subsidised, but consumers benefit from a cap price policy established in 2022, for about two years. Prices differ from domestic to industrial consumers.
	52	Renewable energy facilities in private buildings are incentivised through fiscal instruments	Installation of RES systems in buildings can be incentivised by the municipalities through tax deductions; however, in practice, subsidies (i.e., Casa verde ¹⁰¹) are more attractive and the regulation allowing compensation for electricity generated by the prosumers are strong enough to drive a wave of demand for citizens to becoming prosumers.
	53	Renewable energy technologies are developed and supported through public and private investment	Romania is not producing much, with respect to technology; however, equipment installed in electricity generation facilities is modern and the installation is supported both through public ¹⁰² and private investments ¹⁰³ .
	54	Renewable energy facilities are incentivised through awareness campaigns	There is no strong policy for raising awareness on RES facilities in Romania; however, the price of energy itself over the most recent two years has acted as “awareness raising agent “, citizens becoming aware of the need to avoid unnecessary consumption/produce their own energy if possible.

RES have started to be used on larger scale, in Romania; however, the legal framework, as well as the technical capabilities are limited; the authorities must put in place a recurrent feedback mechanism so that bottlenecks can be prevented and / or eliminated in early stages.

¹⁰⁰ <https://www.apanovabucuresti.ro/informatii-utile/tarife-si-facturi/tarife-pentru-consum-apa-si-canalizare>

¹⁰¹ https://www.afm.ro/sisteme_fotovoltaice.php

¹⁰² <https://energie.gov.ro/finantari-sector-energetic/>

¹⁰³ <https://economedia.ro/numarul-prosumatorilor-din-romania-a-trecut-de-40-000-anre-estimeaza-ca-numarul-va-trece-de-100-000-in-acest-an-ghid-pentru-racordare.html>

Table A-6: Water sector: policies performance

	#	Indicator	Description and performance of relevant polities, strategies, incentives and other response measures.
WATER (Supply, Sanitation, Drainage)	56	Metering and billing for water use is regulated	Metering and billing for water has been provided for as an obligation by Law no. 107/1996 - Waters Law, which is the framework law for water sector.
	57	Water saving / reuse is encouraged through awareness campaigns	This measure is provided for by Law no. 107/1996 - Waters Law, but there is still room for its implementation.
	58	Coverage and efficiency of water supply networks is improved through plans and investment	<p>Firstly, the obligation to extend the coverage and also the efficiency of the water supply networks is provided by the Law no. 107/1996 - Waters Law. Additionally, NPRR, Water Management C1 Component, is creating the necessary framework for supporting its implementation.</p> <p>At the municipality level, the Master Plan for water supply and wastewater networks for 2019-2049, which has been approved, is also providing for this measure.</p> <p>However, the implementation is still ongoing.</p>
	59	Buildings' access to wastewater collection and treatment systems is improved through plans and investment	<p>The obligation to ensure buildings' access to wastewater collection and treatment systems is provided for by the Law no. 107/1996 - Waters Law and specifically Law no. 241/2006 on water supply and wastewater collection service.</p> <p>Additionally, NPRR, Water Management C1 Component, is creating the necessary framework for supporting its implementation.</p> <p>At the municipality level, the Master Plan for water supply and wastewater networks for 2019-2049, which has been approved, is also providing for this measure.</p> <p>However, the implementation is still ongoing.</p>
	60	Wastewater treatment is promoted through regulations and fiscal incentives	<p>The obligation to ensure that the wastewater treatment is promoted through regulations and fiscal incentives is provided by Law no. 107/1996 - Waters Law and more specifically by Law no. 241/2006 on water supply and wastewater collection service.</p> <p>Additionally, NPRR, Water Management C1 Component, is creating the necessary framework for supporting its implementation.</p> <p>However, the implementation is still ongoing.</p>
	61	Wastewater billing is regulated	<p>This obligation is provided by Law no. 107/1996 - Waters Law and more specifically by Law no. 241/2006 on water supply and wastewater collection service.</p> <p>Additionally, NPRR, Water Management C1 Component, is creating the necessary framework for supporting its implementation.</p>

		<p>However, the implementation is still ongoing.</p>
62	<p>Drinking water pre-treatment is enhanced through plans and investment</p>	<p>Drinking water pretreatment is established as an obligation by the recent EGO no. 7/2023 on the quality of water intended for human consumption.</p> <p>For Bucharest Municipality, there is only one operator to whom this service has been concessioned, for both Bucharest Municipality and the 6 Districts, i.e., Apa Nova.</p> <p>Although the obligation to ensure the drinking water pretreatment is stipulated by the Law, hence by the concessioning contract, on the obligation to enhance the pretreatment of the drinking water through plans and investment - cannot be formulated even an assumption, since the concessioning contract could not be tracked in the public domain.</p> <p>However, the implementation is still ongoing.</p>
63	<p>Drainage facilities are developed through plans and investment</p>	<p>The obligation to ensure that drainage facilities are developed through plans and investment is stipulated by the Law no. 107/1996 - Waters Law and enhanced by Law no. 241/2006 on water supply and wastewater collection service.</p> <p>Additionally, NPRR, Water Management C1 Component, is creating the necessary framework for supporting its implementation.</p> <p>However, the implementation is still ongoing.</p>
64	<p>Business and community resilience is encouraged through awareness campaigns</p>	<p>This measure is generally covered by the Law no. 107/1996 - Waters Law, Law no. 241/2006 on water supply and wastewater collection service, EGO no. 7/2023 on the quality of water intended for human consumption and supported through NPRR, Water Management C1.</p> <p>However, there is no specific program dedicated to enhancing community and business resilience through awareness campaigns.</p>

Most of the obligations and measures are provided by the Law no. 107/1996 - Waters Law, Law no. 241/2006 on water supply and wastewater collection service and EGO no. 7/2023 on the quality of water intended for human consumption. Additionally, NPRR, Water Management C1 Component, is creating the necessary framework for supporting its implementation.

At the municipality level, the Master Plan for water supply and wastewater networks for 2019-2049, which has been approved, is also providing for this measure. However, the implementation is still ongoing.

Table A-7: Solid waste sector: policies performance

#	Indicator	Description and performance of relevant polies, strategies, incentives and other response measures.
SOLID WASTE	65	<p>Reduction of material consumption / solid waste generation is promoted through awareness campaigns</p> <p>Waste management plan from the municipality of Bucharest (2020 – 2025)¹⁰⁴</p> <p>1.1. Provides for objectives which are in line with the ones established at national level.</p> <p>National waste management plan 2030¹⁰⁵</p> <p>1.1 The gradual transition to a new model of development based on the rational and responsible use of resources, with the introduction of circular economy elements and the development of a roadmap.</p> <p>2.1 Reducing food waste per capita at retail and consumption levels and reducing food losses along production and supply chains, including post-harvest losses.</p> <p>3.1 Recycling 55% of municipal waste by 2025 and 60% by 2030.</p> <p>4.1 Recycling 65% of packaging waste by 2025 (plastic 50%; wood 25%; ferrous metals 70%, aluminium 50%, glass 70%, paper and cardboard 75%) and 70% by 2030 (plastic 55%, wood 30%, ferrous metals 80%, aluminium 60%, glass 75%, paper and cardboard 85%).</p> <ul style="list-style-type: none"> - Separate collection of hazardous household waste by 2022 of bio-waste by 2023 and textile waste by 2025. - Establish mandatory extended producer responsibility (REP) systems for all packaging by 2024. - Implementation of sustainable ecological public procurement practices, in accordance with national priorities and with European policies. <p>National Sustainable development strategy 2030¹⁰⁶</p> <p>SDG 12: Consumption and production responsible. The strategy proposes the transition to a new development model by introducing the Circular Economy elements, increasing the productivity of resources, reducing food waste, by reducing waste generation at all levels, increasing recycling and reuse, encouraging companies to adopt sustainable practices and integrate sustainability information into the reporting cycle their activities as well as raising public awareness of what a lifestyle in harmony with nature.</p>
	66	<p>Coverage of solid waste collection system is improved through plans and investment</p> <p>See above</p>

¹⁰⁴

https://doc.pmb.ro/institutii/primaria/directii/directia_servicii_publice/docs/planul_de_gestionare_a_deseurilor_din_mun_buc_2020_2025_20210827.pdf

¹⁰⁵ http://www.mmediu.ro/app/webroot/uploads/files/PNGD_vers5.pdf

¹⁰⁶ <https://dezvoltaredurabila.gov.ro/strategia-nationala-pentru-dezvoltarea-durabila-a-romaniei-2030-i>

	67	Littering and non-compliance to sorting systems is dis-incentivised through fines and penalties	See above
	68	Composting, recycling and waste-to-energy facilities are developed through plans and investment	See above
	69	Solid waste reuse, sorting and recycling is promoted through information and awareness campaigns	See above
	70	Overcapacity issues in landfills are tackled through plans and investment	See above

Considering the delays encountered in the implementation of the dedicated policies in the waste field after Romania's accession to the EU, even though the policies are correctly formulated, there is a high change of delayed implementation. Authorities must be aware and struggle to mitigate this risk. Also, waste should start to be treated as a cost for the society, not as commercial goods, stimulating, therefore the interest of the elected representatives in reducing this cost and assuming a more responsible position both, in relationship with the citizens and with the other stakeholders, i.e., waste industry.

Table A-8: Land-use sector: policies performance

	#	Indicator	Description and performance of relevant polities, strategies, incentives and other response measures.
LAND-USE	71	Density is regulated	<p>The general tendency of the population to concentrate around large urban areas and the simultaneous urban demographic decline have generally reshaped the form and structure of cities and their surroundings. Urban areas present two general patterns: on the one hand, large urban areas go through a process of accelerated expansion of urban footprint, far exceeding demographic growth, this footprint sometimes extending into the first peri-urban ring, and, on the other hand, the urban cores of the cities of all types face the phenomenon of emptying the urban centre.</p> <p>The dual dynamics constitute important challenges for sustainable development, especially the use excessive land use and dispersion of urban functions as a result of real estate development projects uncontrolled, fragmented, new land use and the decrease in the attractiveness of the urban core, consequence of the limited access to quality public spaces, the obsolescence of the real estate fund, the decrease living conditions – features valid for all cities, congested traffic and parking spaces overcrowded – specific to more dynamic cities and high vacancy rates – with especially in declining cities.</p> <p>The recently adopted National integrated urban development strategy for resilient, green, inclusive and competitive cities 2022-2035,¹⁰⁷ provides for the necessary framework in which cities can set-up their own strategies. The Strategy established five strategic objectives, among which, the first one refers to spatial sustainability. Under this objective, there are four proposed measures which account for:</p> <ul style="list-style-type: none"> - Consolidation of a favourable environment for spatial sustainability - Limitation and control of urban expansion - Regeneration of urban zones - Complete city subdivisions and intensified connectivity
	72	Transit-Oriented Development is promoted	See above
	73	Mixed-use development is promoted through zoning regulations / incentives	See above

The city of Bucharest needs to establish its PUG and a strategy for urban development which is in line with the National Strategy.

¹⁰⁷ <https://sgg.gov.ro/1/wp-content/uploads/2022/12/ANEXA-STRATEGIA.pdf>

B Annex B: List of policy documents reviewed

1. Bucharest Integrated Urban Development Strategy 2021-2030
2. Bucharest 2035 Development Strategy
3. Bucharest General Urban Plan
4. Sustainable Development Strategies of the 6 sectors (administrative districts) in Bucharest (2020-2030):
 - o District 1 Sustainable Development Strategy, 2020 - 2030
 - o District 2 Sustainable Development Strategy
 - o District 3 Sustainable Development Strategy, 2021 - 2027
 - o District 4 Sustainable Development Strategy, 2020-2024
 - o District 5 Sustainable Development Strategy, 2021
 - o District 6 Sustainable Development Strategy, 2017 - 2023
5. Energy Strategy of Bucharest
6. Integrated Plan for Air Quality in Bucharest
7. Plan for Maintaining Air Quality in Bucharest, 2018 - 2022
8. Sustainable Urban Mobility Plan (SUMP) for Bucharest – Ilfov, 2016 - 2030
9. The Regional Operational Program 2014-2020
10. The Regional Operational Program Bucharest Ilfov 2021- 2027
11. Development Strategy of Ilfov County, 2020 – 2030
12. Waste Management Plan for Bucharest 2020 - 2025
13. Master plan for the water supply and Wastewater treatment in Bucharest, including the long-term investment plan 2019-2049
14. Master plan for the integrated waste management system at the level of Municipality of Bucharest (Master Planul pentru sistemul de management integrat al deșeurilor la nivelul Municipiului București 2017 - 2046)
15. The National Recovery and Resilience Plan (NRRP) for Romania;
16. Other 2021-2027 Operational Programs relevant for Bucharest (such as the Transport Operational Program, Sustainable Development Operational Programme, etc)
17. Romania Water Diagnostic Report, 2018
18. Romania National Strategy for Circular Economy
19. Romania National Strategy for Energy Efficiency
20. National Strategy Regarding the Thermal Power Supply of Cities
21. National Renewable Energy Action Plan
22. Government Ordinance 22/2008 regarding energy efficiency and promotion of energy from renewable energy sources
23. Government Emergency Ordinance 18/2009 regarding the thermal rehabilitation of blocks of flats
24. Energy Strategy of Romania 2020-2030, with the perspective of 2050 (Strategia Energetică a României 2020-2030, cu perspectiva anului 2050)
25. Romania's Territorial Development Strategy (Strategia de dezvoltare teritorială a României (SDTR))
26. Nationally Determined Contribution (INDC) of the EU and its Member States
27. Integrated National Energy and Climate Change Plan (INECCP) for 2021-2030