Sustainable Urban Mobility Plan for the City of TIRANA

[Volume I - STATUS ANALYSIS]

TRT Trasporti e Territorio
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**Sustainable Urban Mobility Plan for the City of TIRANA**

**Project**
Sustainable Urban Mobility in South-East European Countries II (SUMSEEC II) – Open Regional Fund for Southeast Europe – Energy Efficiency (ORF-EE)

**Implemented by:**
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
On behalf of German Federal Ministry for Economic Cooperation and Development (BMZ)

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SEE Change Net - Fondacija Mreža za promjene
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EDEN (Environmental Center for Development Education and Networking)

**Expert support:**
TRT Trasporti e Territorio Srl (Italy)
Summary Sheet

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1 Introduction

As part of the Open Regional Fund Energy Efficiency (ORF EE), the SUMSEEC (Energy-efficient Urban Mobility in South-eastern European Countries) II project aims at developing sustainable, energy efficient and green transport solutions for cities in Southeast Europe (SEE). The project is funded by the German Ministry for Economic Cooperation and Development and implemented by the German Development Agency (GIZ).

Cities and municipal associations from the SEE region are partners in the project. Capital cities in the partner countries receive direct support in the development or implementation of Sustainable Urban Mobility Plans (SUMPs) based on the well-proven and widely accepted approach and guidelines implemented in the European Union, which is adapted and applied to each local context.

The SUMSEEC II supported process for the SUMP development in Tirana started in April 2019 with a kick-off meeting workshop held in the capital city at the presence of the key stakeholders responsible for urban and mobility planning. This workshop provided a common understanding of the scope and the necessary steps in the development of the SUMP, elaborated a proposal for the Plan’s steering group and working groups – core and extended, based on a stakeholder mapping exercise – and proposed a timeline including key milestones.

1.1 Objectives and scope

This document, organised in three Volumes, reports on the development of the first Sustainable Urban Mobility Plan of the capital city of Tirana.

The adopted planning process is coherent with the aim and activities of the SUMSEEC II project and builds on the SUMP concept and approach developed in the European Union in order to incardinate the policy efforts, visions, investment and implementations in sustainable urban mobility into a proper strategic planning practice, framework and formal document adopted by the cities.

The process was launched with a Memorandum of Understanding (MoU) signed by GIZ and the Municipality of Tirana in June 2019, and it is coherent with the SUMSEEC II roadmap that condensate available knowledge and policy tools in order to develop Sustainable Urban Mobility in SEE countries, based on energy efficiency and environmental protection and encompassing also gender equality issues.

As agreed with the Municipality of Tirana, from the geographical point of view the SUMP of Tirana is focused on the inner part the city, corresponding to the former boundaries of the municipality, i.e. before the 2014 territorial-administrative reform (see Chapter 2 for more details).

The SUMP concept encourages a long-term planning. In this respect, proposed intervention measures are planned in three time horizons, as follows:

- Short-term: 2 years (2022),
- Medium-term: 5 years (2025),
- Long-term: 10 years (2030).
1.2 Methodology

The following definition of a Sustainable Urban Mobility Plan has been widely accepted in Europe and internationally: “A Sustainable Urban Mobility Plan is a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. It builds on existing planning practices and takes due consideration of integration, participation, and evaluation principles.”

The development of the SUMP of Tirana follows the European Guidelines for Sustainable Urban Mobility Planning. The process has been recently revised in order to provide additional guidance on specific planning topics and to incorporate major new developments in the area of sustainable urban mobility. The second edition of the EU SUMP Guidelines were published in occasion of the CIVITAS Forum Conference in Graz (Austria), 2 - 4 October, 2019.
The revised EU Guidelines are based on 4 phases and 12 main steps as in the following figure. The proposed steps are not merely sequential and might need to be executed in parallel or re-aligned during the process.
infrastructural and socio-economic conditions, as well as the urban structure, available services and critical issues that characterize the city of Tirana.

The consulted documents are listed below:
- Tirana’s strategic transport study, traffic and mobility strategies (part of the Tirana Boulevard Central Park and River project) – Mobility in Chain, 2019;
- Green City Action Plan of Tirana – ARUP, 2018;
- Second Five Years Review of the Albanian National Transport Plan (ANTP3) – TYPSA, 2018;
- TR 030, The new General Local Plan and a Strategic vision for Tirana 2030 a Kaleidoscopic Metropolis – Stefano Boeri Architetti, 2016;
- Travel demand analysis for transportation action plan in Tirana metropolitan area - Japan Research Institute and Enton Punavija, 2013;

1.4 Process and management structure

The SUMP development process was managed by the following steering committee:
- Mr. Erjon Veliaj, Mayor
- Mr. Arbian Mazniku, Vice Mayor
- Mr. Enton Punavija, Department of Transport, Director
- Mr. Ditjon Baboci, General Director of Territorial Planning and Development
- Ms. Nevin Bilali, Department of Urban planning, Director
- Mr. Taulant Tusha, General Director for Public Works
- Mr. Ismail Beka, GIZ ORF-EE Country Coordinator

Within the Municipality of Tirana, a SUMP working group (core team) was established with the following participants:
- Directorate of Transport
- Directorate of Territorial Planning
- Directorate of Strategic Planning – Consultants
- Directorate of Public Works – GIS and Statistics Sector
- Tirana Parking Agency
- Environment Directorate

Moreover, an extended SUMP working group with representatives from local stakeholders (public authorities, transport operators, NGOs, academia, civil society, workers etc.) was involved in relevant steps as appropriate.
A multidisciplinary team supported the SUMP development. **TRT Trasporti e Territorio** (Italy), with the assistance of local experts, were the lead technical consultants, providing the key planning expertise and know-how; they are the authors of this document.

**SEE Change Net** (BiH), with the local partner EDEN, was responsible of communication and participation horizontal measures of participation of citizens and stakeholders, communication strategies and information, education and promotion during the SUMP development including the visioning exercise.

### 1.5 Document structure

The SUMP document is organised in three Volumes:

- **(This) Volume I - Status analysis**, which reports on the achievements of the first phase of the planning process;
- **Volume II – The Plan**, which encompasses the strategic and the measure planning dimensions;
- **Volume III – Annexes, which** includes the summary of the stakeholder workshops (Annex 1) and the public participation activities (Annex 2) that where held during the planning process, as well as the alternative planning scenarios (long list of measures – Annex 3), and the detailed description of the SUMP measures (Annex 4).

As it comes to Volume I, after this introduction:

- **Chapter 2** analyses the context of the city (background, demography, economy, urban structure and development, localisation of facilities and services);
- **Chapter 3** focusses on the current transport supply (long-distance connectivity, road transport, public transport, cycling, parking, urban logistics, sustainable mobility policies);
- **Chapter 4** reports on the transport demand (modal split, motorisation rates, traffic flows, public transport ridership, behavioural elements);
Impacts of the transport system have been considered in **Chapter 5** as far as road safety, the environment (air quality and noise) and inclusion are concerned;

**Chapter 6** provides an inventory of relevant legislation and policy documents that are relevant for the SUMP;

**Chapter 7** includes a summary of the existing plans and studies which are strategically relevant to shape the future of Tirana’s urban mobility;

**Chapter 8** is the final outcome of the status analysis: the analysis of problems and opportunities for the development of the first SUMP of Tirana.
2 Context

Tirana is the capital of Albania and the largest urbanised area in the country. The Territorial-Administrative Reform (TAR) introduced by Law 115/2014 “On the territorial and administrative division of local government units in the Republic of Albania” has reorganized former local government units (LGUs) into 61 municipalities from 373 that were present before 2015.

The current municipal area of Tirana extends on 1,110 km\(^2\) and is 25 times larger than it was before the reform, having included the territories of 13 former LGUs or “Komuna”, now called administrative units (AUs), to the city boundaries.

The former city of Tirana is further subdivided in 11 smaller administrative units (neighbourhoods) that concentrates 82% of the total resident population. This core unit, together with its urban hinterland, is also the main study area for the Sustainable Urban Mobility Plan.

Source: Own elaboration based on https://opendata.tirana.al
The territory of Tirana extends over a radius of 25 km, but the majority of the built up areas are within 10 km from the city centre.

In between the areas of Tirana, Kashar and Zall-Herr, the neighbouring municipality of Kamza (and its area of Bathore) is also part of the capital’s “functional urban area”.

**FIGURE 2-2: ADMINISTRATIVE UNITS OF THE MUNICIPALITY OF TIRANA AND DISTANCES FROM THE CITY CENTER**

Tirana is extremely compact, being the majority of its administrative sub-units concentrated within a radius of only 3 km.

Apart for the Grand Park of Tirana and its artificial lake, the rest of the core administrative area is totally urbanised.

**FIGURE 2-3: ADMINISTRATIVE UNITS OF TIRANA CORE AREA AND DISTANCES FROM THE CITY CENTER**

Source: Own elaboration based on [https://www.tirana.al/njesite-administrative](https://www.tirana.al/njesite-administrative)
FIGURE 2-4: TIRANA, KASHAR AND KAMZA (BATHORE) BUILT-UP AREAS

Source: Google Earth, image 2020 Mixar Technologies
The Municipality has a total population of **828 000 inhabitants (2018)** of which more than 750.000 live in Tirana, Kashar, Dajt and Farke administrative units. Within the core commuting zone of the metropolis, which includes also Kamza’s urbanised territory (but excluding low-density and distant settlements), the population surpass 900 000 inhabitants according to a likely estimate.

**TABLE 2-1: POPULATION DISTRIBUTION AND DENSITY AT CITY LEVEL, 2018**

<table>
<thead>
<tr>
<th>Administrative units</th>
<th>Population (2018)</th>
<th>Area (Km²)</th>
<th>Density (Pop/Km²)</th>
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<tr>
<td>1. Tirana</td>
<td>680 043</td>
<td>41.71</td>
<td>16 304</td>
</tr>
<tr>
<td>2. Baldushk</td>
<td>5 375</td>
<td>112.88</td>
<td>48</td>
</tr>
<tr>
<td>3. Berzhite</td>
<td>5 905</td>
<td>72.47</td>
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</tr>
<tr>
<td>4. Dajt</td>
<td>22 371</td>
<td>94.64</td>
<td>236</td>
</tr>
<tr>
<td>5. Farke</td>
<td>19 209</td>
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<td>699</td>
</tr>
<tr>
<td>6. Kashar</td>
<td>39 631</td>
<td>39.08</td>
<td>1 014</td>
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<tr>
<td>7. Ndroq</td>
<td>9 702</td>
<td>63.31</td>
<td>153</td>
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<tr>
<td>8. Petrele</td>
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<td>67.26</td>
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<td>9. Peze</td>
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<td>10. Shengjergj</td>
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<td><strong>Total Tirana Municipality</strong></td>
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<td><strong>1 111.01</strong></td>
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Source: Own elaboration based on https://opendata.tirana.al

Urban density is variable among the administrative units, with Tirana core area registering a significantly higher value of almost 17 000 inhabitants per Km². Figures at local unit level shows also higher density values in some south western and central neighbourhoods (Units 10, 5 and 7). **Tirana is compact and densely populated.**

**TABLE 2-2: POPULATION DISTRIBUTION AND DENSITY OF TIRANA UNIT, 2018**

<table>
<thead>
<tr>
<th>Administrative sub-units of Tirana</th>
<th>Population (2018)</th>
<th>Area (Km²)</th>
<th>Density (Pop/Km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nja.1</td>
<td>51 769</td>
<td>3.06</td>
<td>16 920</td>
</tr>
<tr>
<td>Nja.2</td>
<td>82 229</td>
<td>9.58</td>
<td>8 585</td>
</tr>
<tr>
<td>Nja.3</td>
<td>44 728</td>
<td>2.01</td>
<td>22 258</td>
</tr>
<tr>
<td>Nja.4</td>
<td>64 733</td>
<td>4.92</td>
<td>13 158</td>
</tr>
<tr>
<td>Nja.5</td>
<td>86 800</td>
<td>2.87</td>
<td>30 297</td>
</tr>
<tr>
<td>Nja.6</td>
<td>77 504</td>
<td>5.48</td>
<td>14 152</td>
</tr>
<tr>
<td>Nja.7</td>
<td>74 034</td>
<td>3.06</td>
<td>24 220</td>
</tr>
<tr>
<td>Nja.8</td>
<td>41 689</td>
<td>1.95</td>
<td>21 407</td>
</tr>
<tr>
<td>Nja.9</td>
<td>63 124</td>
<td>2.82</td>
<td>22 363</td>
</tr>
<tr>
<td>Nja.10</td>
<td>27 965</td>
<td>0.77</td>
<td>36 331</td>
</tr>
<tr>
<td>Nja.11</td>
<td>65 468</td>
<td>5.21</td>
<td>12 577</td>
</tr>
</tbody>
</table>

Source: Own elaboration based on https://opendata.tirana.al
2.1 Demographic structure and trends

Albania has experienced a net population decline due to significant emigration flows to other South Eastern European countries and especially the EU. One-third of the population left the country in the last 25 years, passing from 3.12 million inhabitants in 2000 to 2.88 million in 2018.

According to the International Labour Organization (ILO) and a recent regional study by Friedrich Ebert Stiftung, more than two thirds of Albanian youth people hopes of emigrating abroad. The study found that the less educated people are more likely to seek opportunities to migrate and to support their relatives remaining in the country with remittances. Remittances are estimated by the World Bank to constitute 8.5% of Albania’s GDP.

Even though Albania has the highest migration flow rate in Europe, Tirana population is steadily increasing.

In the last 10 years the core unit of Tirana experienced a demographic growth of 10%: residents passed from 611,877 inhabitants in 2009 to 680,043 in 2018, while the whole Municipality registered a growth rate of 13.3% (passing from 718,058 inh. in 2009 to 828,403 in 2018). According to recent projections by the National Statistics Institute (Instat), this growing trend will continue in the next 10 years.

Indeed, the Tirana-Durres corridor, within the western central plain of Albania, is experiencing a rapid urbanization and economic growth. Tirana is the economic center of Albania and 40% of foreign capital invested in the country has been invested there. The city is also the education and research hub of the country. It has the highest number of universities and schools, with approximately 52,000 students from all over the country going there to study. It is also home of artistic, cultural, social and sports activities. This attractiveness is reflected in a massive migration from the rest of the country and also return migration from abroad.
Tirana and Albania are constantly registering a natural increase. What differs substantially is the net migration rate: in contrast to people leaving the country (and thus contributing to a national decrease of residents), the capital continues to attract citizens from other regions. In 2017, this component represented more than 17,000 new residents for Tirana.

**TABLE 2-3: NATURAL GROWTH VERSUS NET MIGRATION FLOWS, 2017**

<table>
<thead>
<tr>
<th></th>
<th>Tirana Municipality</th>
<th>Albania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 2016</td>
<td>793,133</td>
<td>2,886,438</td>
</tr>
<tr>
<td>Population 2017</td>
<td>813,902</td>
<td>2,884,169</td>
</tr>
<tr>
<td><strong>Total variation in 2017</strong></td>
<td><strong>20,769</strong></td>
<td><strong>-2,269</strong></td>
</tr>
<tr>
<td>Births 2017</td>
<td>7,409</td>
<td>30,869</td>
</tr>
<tr>
<td>Deaths 2017</td>
<td>4,115</td>
<td>22,232</td>
</tr>
<tr>
<td><strong>Natural increase 2017</strong></td>
<td><strong>3,294</strong></td>
<td><strong>8,637</strong></td>
</tr>
<tr>
<td><strong>Net Migration variation 2017</strong></td>
<td><strong>17,475</strong></td>
<td><strong>-10,906</strong></td>
</tr>
</tbody>
</table>

Source: Instat, 2017

Latest data available for Tirana (Opendata Tirana, 2018), show that the surplus of 14,501 residents turns out to be most affected by the balance of movements of +11,118 inhabitants or 76.7%. The natural increase for 2018 was 3,383 inhabitants. Internal movements express that Kashar has the highest balance of internal movements for 2018 with +1,827 inhabitants followed by Unit 7 with +1,172 inhabitants and Farka with +1,144 inhabitants. The least favoured units, where the net movements are negative are Zall Bastar with -59, Shengjergji with -27 and Krraba with -8.

The number of households is another indicator which has been increasing every year for the Municipality of Tirana. During 2018, the number of families reached 288,325 units resulting in 2.9 inhabitants per family.

With the increase in the number of inhabitants Tirana is also registering an increase in population density: on average every year there are 12 more residents per km² in Tirana Municipality as a whole.

**FIGURE 2-7: EVOLUTION OF URBAN DENSITY IN TIRANA MUNICIPALITY 2013-2018**

Source: [https://opendata.tirana.al](https://opendata.tirana.al)
The population pyramid shows that about 50% of the population is under 35 years of age. About 70.99% of the population is in working age. Children aged 0-9 make up 11.48% of the Tirana population. Young people (0-14 years old) in Tirana represents 17.2%. The working age population (15-64 years old) accounts for 71.0% of the population, while people over 65 years accounts for 11.9%.

These are higher values comparing with national averages (young people 17.5%, working age population 68.7% and over 65 about 13.8%) showing that working age people are mainly concentrated in Tirana in order to have more employment opportunities.

This is also observed by the coefficients of young and old people dependency (ratio between persons aged 0-14 or 65+ and the working age population 15-64). Generally, in Albania the coefficient of youth dependency exceeds that of the elderly. In Tirana administrative area these are 23% vs. 18% respectively. Only in AU nr. 10 and Shengjergjii these ratios are reversed. Tirana is therefore a young city.

The Tirana 2030 General Local Territorial Plan (GLTP) estimates an increase of the population up to 965,108 inhabitants by 2030, which reflects a growth of 26.4% in two decades or a yearly average of 1.32%.

This estimation considers the population of the new administrative boundaries of Tirana having the 2011 Census as main reference. The latest
2011 Population and Housing Census recorded not only the number of inhabitants, but also the number of residential dwellings (inhabited or not) and the number of foreigners present in the country. From the household census data, a projection was constructed based on the medium-range national projection, which assumes secondary fertility rates, medium mortality and medium migration rates.

**FIGURE 2-10: ESTIMATED INCREASE OF POPULATION IN TIRANA**

![Population Growth](image)

- **Yearly population growth index:** 1.32%
- **Population growth in 20 years:** 26.4%
- **2011 Inhabitants:** 763,560
- **2030 Inhabitants:** 965,108

Source: TR2030 Tirana General Local Plan, 2016

### 2.2 Economy and employment

The GDP of Tirana in 2013 was 643,000 Lek per capita (equivalent to around 4,700 Euros). This was 38% above the average of the country. According to the JICA Study (2012), it is anticipated that the Albanian economy has the potential to achieve a sustained growth rate of 3 to 4% per annum. As the economic engine of the country, the Tirana Metropolitan Area is expected to achieve a higher growth rate.

The employment distribution by region overall reflects the geographical disparities in the distribution of firms and the outstanding situation of the capital city. In fact, more than one-half (52%) of all jobs in Albania are concentrated in Tirana region. Moreover, Tirana hosts 35% of all registered firms. According to the Labour Force survey (LFS), which should cover both formal and informal employment, 28% of the working-age population lives in Tirana and 25% of all employment (formal and informal) is based there.

**FIGURE 2-11: JOB DISTRIBUTION BY REGION**

![Job Distribution](image)

Source: Job Dynamics in Albania; A note profiling Albania’s labor market. World Bank 2018
Agriculture is the major sector for the country, and provides 17% of national GDP and employs 60% of the labour force. In Tirana, agriculture makes up only around 5% of the economy.

Within the Tirana, recent growth indicators have been very strong. For instance, the number of active enterprises grew at nearly a 4.2% compound annual growth rate from 2014-2018. The city’s economy is dominated by trade and services, which makes up around 70% of the city’s economy. Construction and manufacturing are the other major sectors, which together contributing around 25% to the city’s economy.

**FIGURE 2-12: ACTIVE ENTERPRISES BY ECONOMIC ACTIVITY, MUNICIPALITY OF TIRANA, 2018**

<table>
<thead>
<tr>
<th>Economic Activity</th>
<th>Tirana</th>
<th>Albania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry and fishing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport and storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producers of services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodation and food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information and communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 2-13: ACTIVE ENTERPRISES GROWTH 2014-2018**

Source: Instat 2018

**FIGURE 2-14: ACTIVE ENTERPRISES BY SIZE IN 2018**

- **1-4**: 6%
- **5-9**: 9%
- **10-49**: 2%
- **50 and more**: 83%

Source: Instat 2018
2.3 Urban structure and development

Tirana was a small city with only 17,000 inhabitants and an area of 3 square km when it became the capital city of Albania in 1920. Albania had gained its independence from the Ottoman Empire just eight years earlier and still mostly rural. Suddenly after, Tirana started experiencing a constant population growth. The first 20 years, it confirmed the expansion of the urban settlement, with a peak of industrial urbanization in the 50s’.

After the second world war, a strict communist regime took power in Albania that exerted highly centralized control over the built environment. In 1957, the Tirana’s regulatory plan was redrawn. The aim was to create a powerful new urban image that would exemplify and promote the new regime. But limitations on public resources inevitably hampered the full achievement of ambitious planning visions, resulting in practice in patchy and erratic projects, many of which were left unfinished. Notwithstanding rigorous population controls, the capital’s population and size grew substantially during communism. At the end of the 1980s, Tirana’s urbanized area covered 12 km² and its population had increased to almost 300,000 (Pojani , 2010).

The end of the communist regime in 1990 led to drastic economic, social, and physical transformations. Land management strategies significantly changed from strictly restricted urban growth to extensive urbanization with large shares of unregulated land development.
That is how, in the last decades, Tirana has witnessed a boom construction and has suffered a rapid and unregulated process of urban development. The city’s footprint is now over three times the size it was in 1957.

Aside from the expansion of its urban footprint, Tirana also experienced a rapid population growth following the 1991 reforms. Before the 1990’s, Tirana was a compact city of approximately 225,000 inhabitants, while with the economic and development boom the city grew to approx. 600,000 inhabitants, witnessing the fastest expansion with the migration of many families from the northern and southern regions.

In contemporary Tirana this trend has been accompanied by the striking densification of existing neighbourhoods through the appropriation of former public spaces. This transformation of Tirana’s built environment has occurred within a very short period of time resulting in an extremely dense urban fabric.

The rapid growth and lack of appropriate legislation to take under control the development of the territory, brought as a result the expansion of informal settlements in the surrounding of the former city.

Source: TR 030 Tirana General Local Plan, 2016
The informality represents a risk, as it is characterized by insecure land tenure, **lack of basic services and mobility infrastructure**, transforming and urbanizing the former agricultural land.

The current approach of the national government towards these settlements is a process of legalization by investing in infrastructure through capitalization of land and thereby supporting the rapid urbanization.

As a result of the densification and economic transformation, a **dual city** has been created. On the one hand, there is the **inner Tirana**, that has become a vibrant city, packed with new residential buildings and offices, nightlife, shops and restaurants. On the other hand, in the **massive squatter suburbs** commercial and social amenities are mostly inexistent, unemployment is higher, and women rarely work.

The General Local Plan of Tirana (2016) establishes as one of its thirteen strategic projects, the consolidation of 15 dynamic epicentres as the **new polarities** to put a limit to urban growth in rural areas and, in this way, to reduce soil consumption. The urbanized area line sets the boundaries where intensity and the development should be concentrated, while the rest of the territory foresees low intensity, boosting policies to protect agricultural production and the natural territory.

The identified **areas of transformation** are completion areas like brownfields and ex-industrial zones located within the compact tissue. The aim is to host the growing population by boosting a qualified and well served city centre and to put limits to sprawl and urban growth.

![Figure 2.17: Transformation Areas and New Polarities in the Urban Area](source: TR 030 Tirana General Local Plan, 2016)
2.4 Localisation of facilities and services

The city core concentrates most of the capitals’ institutions, public offices and representative buildings, as well as the private third sector such as banks and insurance. While in the immediate proximity, retail and commercial uses scattered and generally located in the ground floor.

The largest working clusters are located outside of the city centre, where industries are grouped in the Kombinat and Selite neighbourhoods as well as the ‘Production Axis’ located along the Tirana-Durres Highway. The main service clusters are composed by:

- The Academic Hospital of Tirana in the Don Bosko area which hosts an academic staff of over 700 professionals and a student population of 7,500 people,
- The Mother Teresa Hospital adjacent to the Kinostudio neighbourhood which has the capacity to host 1,612 patients and a medical staff of 2,500 people,
- The Metropolitan University of Tirana, located in the Qyteti Studenti neighbourhood with an estimated student population of over 1,400 students and 200 professors within the teaching staff.

Source: Tirana’s strategic transport study, 2019
The next figures map the distribution of attractive poles, such as education facilities, health centres, commercial and sport services.

The location and nature of services is a relevant factor for understanding the mobility flows attracted by the different territorial areas.

The role of Tirana as main city and capital of Albania explains the presence of the most important health and educational poles of the country within Tirana’s main core.

As it comes to the educational system (public and private universities, high schools and secondary schools), most facilities are concentrated in the city core, mostly within and around the so-called Third Ring.

The second-degree educational services and the universities attract a large basin that goes beyond the boundaries of the municipal territory, especially for higher education (university).

That is to say, the role of Tirana regarding its services goes well beyond the municipal borders, playing a primary role at national level.

FIGURE 2.19: EDUCATION FACILITIES

Source: Own elaboration based on TR030 Tirana General Plan, 2016
Also attractive poles as health services, sport centres and shopping malls are mostly concentrated within and around the Third Ring.

Health services are well distributed across the urban area. The system is characterized by the strong presence of two infrastructures which role go beyond the boundaries of the city: the Academic Hospital of Tirana in the Don Bosko area and the Mother Teresa Hospital adjacent to the Kinostudio neighbourhood.

The construction of shopping malls during the last two decades in Tirana are reflected by the growing dependence of the private car.

Actually, many retail infrastructures were built outside the Tirana Unit boundaries and are mainly reachable only by car.

Two clear examples are the Qendra Tregtare Univers along the SH2 axis and the Tirana East Gate along Tirana–Elbasan Highway (E852).
3 Transport supply

The transport networks and services supply is described along the following themes:

- **International and national connectivity** (air, maritime, rail and road global accessibility).
- **Urban road transport** (road network and hierarchy, road management and access regulations, pedestrian areas).
- **Public transport** (network, services, fleet, fares and ticketing system, bus terminals).
- **Cycling** network, facilities and services.
- **Parking** (on-street and off-street supply, demand, regulation and fees).
- **Urban freight transport** (vehicle access regulations and practices).
- **Sustainable mobility policies** (electric mobility, promotion of sustainable mobility behaviours, public space realm and kids-friendly urban policy).
3.1 International and national connectivity

3.1.1 AIRPORT

Tirana International Airport Nënë Tereza is located 17 kilometers outside Tirana, directly connected through the new access road from the Tirana – Durres motorway. It was built in 1957 and modernized in 2005 by a German led consortium. Then, it was sold in 2017 to China Everbright Limited asset management company, which has the concession until 2027. It has witnessed a constant passengers’ growth over the past three years (between 2015 and 2018), leading to an overall 50% increment. Italy is the most frequent destination along with Istanbul in Turkey.

3.1.2 PORT OF DURRËS

Albania benefits from a coastal line of 440 km and lies in a strategic position in the Adriatic and Ionian Seas. The country has four commercial seaports. The biggest one, located in the city of Durrës, is only 35 kilometres far from Tirana. The two cities are often considered part of one sole integrated metropolitan area, called Durana.
Durres Port currently represents the 78% of maritime trade at national level. It is also considered the main entrance of the Pan-European Corridor VIII, processing 90% of the freight entering the corridor. In addition, it experienced an all-time peak of passenger transit in 2014 with an approximate 1.5 million tourists. Yet, the port has seen a decline in numbers in the last years due to the delay of dredging projects, which have reduced the capacities of ships entering the port.

The connections with the railway network may be an obstacle too, as of now the rail can only access the East Terminal of the Port and the container terminal is located in the opposite side.

Indeed, the rail link is not a key component being the majority of maritime traffic, both for freight and passengers, generated by ferries (with trucks and cars usually having their main point of departure or arrival in Tirana).

There are two main ferry links connecting Durres with the Italian Adriatic seaports of Bari (2 daily overnight departures) and Ancona (3 weekly overnight departures).

**FIGURE 3-3: PORT OF DURRËS: KEY FIGURES**

Source: Durres Port Authority

**FIGURE 3-4: THE PORT OF DURRËS**

Source: Durres Port Authority
3.1.3 NATIONAL ROAD NETWORK

Corridor VIII is one of the Trans European Network Corridors recognized by the European Union. It is of utmost importance for Albania as it starts from Bari and Brindisi ports in the south of Italy and it arrives at Bulgarian ports on Black Sea crossing Albania, North Macedonia and Bulgaria. It covers a total of 1,300 km of rail line and 906 km of road network.

On 2010 Albania commissioned the ANTP2 (Albanian National Transport Plan Study) which had the objective of developing transport infrastructure by putting together a variety of action plans. In 2018, the "Second Five Years Review of the Albanian National Transport Plan (ANTP3)" updated the previous version of 2010.

The aim of the strategies is to ensure the integration of the Albanian transport network into the Balkan region and the Pan-European network in order to boost economic development and satisfy traffic forecasts.

In 2018, the Macedonian and Albanian governments signed a cooperation memorandum between the ‘Macedonian Railways- Infrastructure’ and the ‘Albanian Railways’ to reinforce the role of Corridor VIII.

This memorandum stipulates coordination and joint promotion before international funds for the Kicevo Line railroad section, whose completion is expected by 2023.

In addition to Corridor VIII, Albania is crisscrossed by the historic Adriatic-Ionian Transport Corridor which stretches along the Adriatic and Ionian Sea coast, parallel with the coastline. Although it is not in the pan-

**Figure 3-5: Pan European Corridor VIII**

Source: Pan European Corridor VIII Secretariat
European transport network, the Adriatic-Ionian Transport Corridor is an important corridor for the integration of the entire South-East Europe. It runs from Trieste to Kalamata thus linking seven countries: Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania and Greece as well as important Adriatic and Ionian ports.

The historical corridor coincides with the future Adriatic-Ionian motorway. Albania has mostly completed its north-south corridor (SH1 and SH4) connecting Montenegro with Greece. Remaining parts of the corridor are planned to be expanded to full motorway standards.

### 3.1.4 NATIONAL ROAD NETWORK

The overall length of the national road network is of 18,300 km (including national, local, urban roads). The Albanian Road Authority (ARA) is responsible for the construction, operation and maintenance the Albanian road network.

Tirana’s location is strategic in terms of connectivity as it is located at the crossroad of the North/South infrastructural backbone (composed of SH1, SH2 and SH4) and the main East/West link (composed of SH2, SH3) which connects Durres-Tirana and Elbasan proceeding towards Macedonia. In fact, the area of Tirana, along with the northern segment of the Adriatic-Ionian Corridor, and in the south-east connection with Greece, are not only carrying the highest passenger vehicle flows but are also main arteries for the transport of goods through Albania and towards neighbouring countries.

According the "Second Five Years Review of the Albanian National Transport Plan (ANTP3)", an estimated 17,085,737 tons of goods were transported through the national road network in 2018. As explained by the ANTP3,
3.1.5 NATIONAL RAIL NETWORK

The Albanian rail network supports Albanian Railways (HSH) to carry out services for goods and passengers transport through a network of 360 km of single-track railway line.

According to the 2014 annual update of the ANTP2, the traffic downtrend is reflected in declining volumes in rail traffic both for freight and passengers, reaching 0.187 million passengers and 39.89 million tonnes.

There has been a long period of low investment and the maintenance work has been restricted. The track is in workable but poor condition. During the last decade, rail traffic has been in a constant decline. It must be further noted that train speeds are very low and the service is poor and irregular. It is worth to mention that the infrastructure is old and in need of renewal.

In 2013 the Tirana-Vore railway trunk was closed for passenger and freight transport, and the Tirana old station was demolished to make room for a new boulevard that leads to the norther part of the urban area. In 2015, the Kashar station, located 10 kilometres away from Tirana’s city centre, was renovated but the former Kashar-Tiranë line, still closed today, has been replaced with a bus service.

In October 2019, HSH published the first procurement tender for the rehabilitation of Durres – Tirana Public Transport Terminal (PTT) railway line and new railway connection to Tirana International Airport (TIA). The project includes the design and rehabilitation works (including the signalling and communication) on the 34-km railway line between Durrës and Tirana, the construction of a 5-km rail section from the capital to the airport, the modernisation of the 5 existing stations (Durres terminal station, Shkozet, Sukth, Vore and Kashar) and the construction of a new one at Tirana Public Transport Terminal located in the Laprakë suburb.

The tender is part of a 90.3 million Euro project, which will be financed from the proceeds of a loan from the EBRD and a grant from the EU’s Western Balkans Investment Framework (WBIF) received via the EBRD.

FIGURE 3-7: NATIONAL RAILWAY NETWORK

Source: HSH Hekurudha Shqiptare
3.2 Road transport

3.2.1 ROAD NETWORK

Tirana’s road network presents a radial and orbital organization of the primary connectors.

The main radial roads of Tirana’s road network extend from the Inner Ring Road west to Durres and the airport via Durres Highway, southwest to Kavaja/Durres, south to Elbasan, east to Dajti over the mountains, and northeast to Tufina. In addition to these five primary roads, there are several other radial roads most of which connect up to the administrative limits of the Municipal Unit of Tirana. In the northwest of Tirana, there is also a primary road diverting from Durres Highway and extending to Kamza/Fushe-Kruja.

On the other side, the urban road network includes 482 roads with a total length of 1,101 km and is composed of three (commonly referred) ring roads:

- the Inner Ring Road, surrounding Scanderbeg and the business district;
- the Middle Ring Road, with a missing part in the south-east;
- the Outer Ring Road of which only the west section is exist until now.

The Municipality adopts the following road classification:

- Metropolitan primary road: urban roads connecting outside Tirana and the Outer Ring Road;
- Main city access road: urban roads connecting the Outer Ring Road and the Middle Ring Road;
- Main center access road: urban roads connecting the Middle Ring Road and the Inner Ring Road;
- Outer Ring Road: a ring road that runs nearly parallel to Tirana’s construction limit (yellow line), serving mostly the through traffic between the surrounding cities and communes bypassing Tirana;
- Middle Ring Road: a ring road inside Tirana, serving mostly the traffic of everyday trips of various purposes within Tirana;
- Inner Ring Road: a ring road surrounding the center of Tirana, serving mostly the traffic generating in and around the center of Tirana;
- Secondary main road: major local roads that connect the municipality blocks; and
- Secondary road: all other kinds of local roads serving the municipality blocks.
Tirana’s road network presents some limits in relation to the distribution of the vehicular flows across the city. This is primarily due to the high increase of the motorization index and car use in a very short period of time and to the presence of express roadways running within the urban consolidated grid, such as the Tirana-Durres motorway (SH2) which allows direct penetration of the private traffic towards the city centre.

At the same time, the main outer orbital link, which should distribute the flows across the city, is not yet completed and therefore the city centre suffers the vehicular pressure of many cross-passing flows. In this framework, the recent completion of the Tirana-Elbasan motorway stretch south of the SH56 has already provided important improvements, allowing in particular heavy duty vehicles to bypass the city centre.

That said, the structure of the Tirana road network is currently implicitly forcing the private traffic to use the inner city primary and secondary network, also for the medium range movements, relying on a series of primary road axes that work as heavy traffic corridors. This very same pattern also re-links to the secondary network and, especially towards the centre, to the diffused road network too.
The SH2 and the Tirana-Elbasan highway present a series of split-level junctions that allow to uphold free flow conditions. However, the continuous urban expansion and orographic constraints brought these junctions into densely urbanised areas causing important impacts on the urban quality, in terms of spatial organization and infrastructural barriers.

Besides SH2 and the Tirana-Elbasan highway, the city centre presents some issues too. Pedestrian permeability often remains limited and safety conditions are not always supported by the complex and car-oriented design: some junctions present slip lanes for right turn manoeuvres and extremely narrow medians prioritize vehicular movements over pedestrian-oriented solutions. Similarly, some large roundabouts as Zogu I Zi Square, Shqiponja and the Sheshi Uillson, hazard safety of pedestrian and bikers.

Moreover, the modification of Scanderbeg square in 2017 brought significant congestion problems in the city centre as the radial axes work as funnels that concentrate the flow in Rruga Ded Gjo Luli, Rruga e Barrikadave and Rruga Ibrahim Rugova.

In general, there is a predominance of the car in relation to the road space usage and distribution with limited section for sidewalks and diffused presence of on street parking, often forcing people walking along residual spaces.
3.2.2 ROAD MANAGEMENT AND ITS

In 2013, Tirana inaugurated the “Tirana’s Urban Traffic Control Centre” (TUCC), a traffic unit devoted to the management and monitoring of vehicular traffic within the city.

TUCC is interconnected in real time with every traffic light (75), 23 CCTV cameras on the main roads, 6 variable-message signs (VMS) and some traffic count sensors. As for other similar systems, on the VMS messages related to road safety are displayed as well as current traffic information on most important roads.

Source: Tirana Urban Traffic Control Center
Traffic lights are managed automatically based on a data-based scheduled calendar. In addition, the operators can act manually to give the priority on the most congested road based real-time situations detected via traffic cameras and sensors. TUCC has also implemented a “green wave” scheme to allow continuous traffic flow over several coordinated intersections and along 14 road corridors.

![Figure 3-13: Green Wave Corridors](image)

Source: Tirana Urban Traffic Control Center

TUCC activities are based on a software called UTOPIA, a high-performance adaptive traffic control system designed to optimize traffic flows. The software offers a wide range of strategies designed to suit any road network and even unpredictable traffic conditions. In the fully adaptive mode, it constantly monitors and forecasts the traffic status and optimizes the control strategy according to flow efficiency and/or environmental criteria. CCTV sensors and cameras are placed along the entry and exit points of each integration area in order to accurately measure flows.

Some of the expected advantages for the city include the improvement of the traffic flow on the city’s road network, reduce delays and decrease travel times. In addition, it also helps keeping a continuous monitoring of the traffic status and boost the city’s security. Unfortunately, the actual system presents some limitations due to the lack of installed sensors.

TUCC capabilities are still not very accurate and many operations are done manually.

![Figure 3-14: TUCC Room and Its Devices](image)

Source: Tirana Urban Traffic Control Center
Installed sensors and other ITS systems have been also connected to the **info-mobility application for smartphones Tiranalme** and available for both Android and iOS devices.

Users can find updated (and also real-time) information about traffic, paid parking, urban and interurban public transport, taxi and bicycle lanes. They can also use the app to pay for on-street parking and to get notifications about traffic jams.

**Source:** Tiranalme
3.2.3 URBAN VEHICLE ACCESS REGULATIONS

In Tirana a wider urban vehicle access regulations (UVAR) scheme is in place for regulating both access and circulation of light duty vehicles in the city centre (Inner Ring), as well as the operations of heavy duty vehicles inside the middle ring road.

The Albanian Road Code allows the creation of “Restricted Traffic Zones” (Zonë më Trafik të Kufizuar or ZTK) to regulate vehicular access to some specific areas and user categories.

In Tirana this type of scheme is used principally in the vicinity of the Embassies, for example Rruga Donika Kastrioti (close to the Russian Embassy) and especially Rruga Skënderbeg where the majority of diplomatic offices are located. In this area in particular there are also physical barriers and police-controlled gates.

Another ZTK is active since January 2017 in the area of the Great Lake Park.

The most relevant UVAR scheme was experimented in two periods of 2004 and 2005 in the Blloku area: the aim was to eliminate the conflict between car and pedestrian flows during the evening due to the presence of many bars, restaurants and clubs. The restriction was in force from 6:00 pm to 11:00 pm and enforced by removable physical barriers. Cars that belonged to residents who owned garages were allowed to enter the ZTK at all times together with emergency vehicles, cars with diplomatic license plates and taxis.

3.2.4 PEDESTRIAN AREAS

Rruga Murat Toptani is one of the most popular and long-established pedestrian streets in the city.

More recently, the Municipality of Tirana has invested in the creation of permanent pedestrian areas especially through urban design and physical interventions.

The biggest finalised intervention is certainly the renovation of Skanderbeg Square. It consisted in the creation of a public space of more than ten hectares exclusively for the pedestrian use. The mosaic paved central esplanade of almost 40,000 square metres is shaped like a four-sided pyramid with a slope of 2.5% and a fountain at the top that lets water trickle down the sides. The area is also characterised by the presence of a green strip circling the square in the form of twelve gardens with leafy trees. One of these gardens extended to the north and has been renamed “Europe Park”.

The project was awarded in 2018 with the first prize by the European Prize for Urban Public Space, a biennial initiative of the Centre of Contemporary Culture of Barcelona (CCCB).
The second relevant intervention is the **New Bazar (Pazar i Ri)**, a newly renovated and fully pedestrianised site located in one of the oldest areas of the city.

**FIGURE 3-18: PAZAR I RI**

Source: TRT
3.3 Public transport

In Tirana the public transport network relies entirely on buses. The sole alternative system is the Daitj Ekspres cable car linking the lower station of Linzë to the Daitj mountain.

Since 2013, the urban public transport service is contracted on a line/route basis to 10 private operators. PT companies are currently operating 16 urban and 25 suburban bus lines that mostly connect the outer/rural municipal villages and suburbs to the city centre.

The system is coordinated by the city’s Transport and Mobility Department whereas the ‘Consumer Protection Agency’ (Agjencia e Mbrojtjes së Konsumatorit - AMK) controls the performance of the different collective passenger transport services (including taxis) in order to meet contractual obligations and minimum quality standards.

The current organisation has totally replaced the former in-house system provided by the state-run company PTUU and also the numerous private microbuses (furgon) that started to offer informal urban transport as a consequence of the low level of service of official PT lines and also to link unserved areas. Today the presence of private informal microbuses is not allowed on urban roads.

3.3.1 SUBURBAN PUBLIC TRANSPORT NETWORK

The suburban PT service consists of 25 bus lines linking the areas and rural villages of Bathore/Zall-Herr (L23), Kus (L26), Tufine, Dajit/Tujan/Lanabregas (L5), Shëngjergj (L15), Farkë (L03), Krrabë (L10, L11), Petrelë (L01), Baldushk (L13), Pezë (L19), Ndroq (L21), Vajarr/Arbanë (L17, L18) and other minor villages.
SUBURBAN BUS LINES (CONTINUED)

Source: Public Transport Map, MoT Department of Transport – GIZ 2019
The suburban service is operated mostly with smaller buses every day from 5:00 to 23:00 in the period April/October and from 5:30 to 22:30 in the period November/May. The frequency is variable with the maximum headway of 15-20 min in peak hours. A single ticket costs **50 Lek** (€ 0.41) or slightly more depending on the travel distance.

Almost all rural/suburban lines are linked to the urban network at 4 interchange nodes located in the city centre (see below).

The international airport Nënë Tereza is also linked to the city centre by the shuttle line *Rinas Express*. The minibus runs daily every 30 minutes from 7:00 to 24:00 and costs **300 Lek** (€ 2.46) per single ride.
3.3.2 URBAN PUBLIC TRANSPORT NETWORK

The urban public transport service consists of 16 bus lines, respectively:
- 8 radial (centre-peripheral neighbourhood);
- 5 diagonal (linking two opposite outskirts and crossing the centre);
- 3 circular or semi-circular (1 ring line plus other circles passing through the centre).

The network is not designed on a hierarchical and/or orthogonal basis to favour interchanges and presents several overlaps. This is also a consequence of the route contracting scheme currently in place.

All lines but one overlap on the Inner Ring surrounding Skanderbeg Square (Myslym Syrri, Dëshmorët e Kombit, Sheshi Skënderbej, Abdi Toptani, George W. Bush, Barrikadave, Urani Pano, Ded Gjo Luli, Ibrahim Rugova).

Some of the lines overlap on the main radial boulevards (Zogu I, Rruga e Durrësit, Dritan Hoxha, Kavajës, Hoxha Tahsim, Dibrës) and on the Middle Ring roads with Line 14 Unaza closing the circle through the boulevards along the Lana river.

Only three lines (14 Unaza, 13 Tirana e Re and 15 Kombinat-Kinostudio) provide a relatively high level of service combining both higher frequency and higher capacity by using 18m articulated buses.

There are 451 bus stops on the entire network. The average distance between stops varies. Following the regulation approved by Tirana Municipality the distance between stops for the suburban bus lines is from 500-1000 m instead of urban lines that is from 250 to 400 m.

Previous commercial bus lines linking Tirana to some shopping centers in the suburbs, namely QTU, Casa Italia, Tirana East Gate and Citypark (mostly offered for free to clients and operated by the shopping centres themselves) are now integrated into the official urban bus network.

The service is operated every day (regardless of holidays and weekends) from 6:00 to 24:00 and a single ride ticket costs 40 Lek. Scheduled service frequency varies between 3 and 15 minutes among the lines even if timetables are not available to check for peak/off peak differences. In terms of performance, the entire network registered an average frequency of 9 minutes on a daily basis in 2018 and first half of 2019 (Open Data Bashkia Tiranë – AMK, 2019).

FIGURE 3-21: SCHEDULED BUS FREQUENCY PER LINE IN MINUTES

Source: MoT Department of Transport, as reported in Tirana’s strategic transport study, 2019

In 2016, AMK issued on average 33 monthly penalties to operators due to violations in service frequency. These were considerably lower (7 and 11) in 2017 and 2018 whereas in 2019 (data till November) raised again to 27. On the contrary, no relevant penalties have been registered with reference to service’ starting and ending rides.
The network extends over 170 km of the road network. In terms of accessibility, almost 257,000 residents live within a 150m walking catchment area from a bus stop (Tirana’s strategic transport study, 2019). That is approximately 35% of the population living inside the Municipal unit of Tirana.

Overall, the entire network is at 15-20 minutes walking distance for most of the urban population (Technical Assessment Report - Green City Action Plan of Tirana, 2018).

Source: MoT Department of Transport, as reported in Tirana’s strategic transport study, 2019
FIGURE 3-23: URBAN BUS NETWORK PER LINE

Source: TRT based on Open data Baskia Tirana, 2019
Infrastructure and equipment

There are only 7 km of dedicated bus lanes on the entire PT network that are limited also in terms of continuity. Therefore, no proper bus corridor is available. Some of the bus lanes are segregated with physical separators, while others are equipped with only road signs or markings.

In the case of a mixed use lane, city buses have a stop bay that allows them to approach and stop aside without blocking regular traffic.

At some intersections along the middle ring, just 20 or 30m long dedicated bus lanes have been realised in order to give priority to city buses when the traffic light turns green. In reality, it is often the case that such bus lane sections are occupied by running or illegally parked vehicles and are thus not efficiently utilized.

This element and the configuration of the network itself has a consequence on service reliability due to traffic congestion particularly during peak hours although this is not detected when referring by AMK penalties.

Bus stops are managed by the Tirana Municipality.

In general, there is no visual identity of the whole PT network. Also, single bus lines are not easily identifiable for their livery and route number is not showed on every passenger information displays. There are no timetables nor information at bus stops.
As it comes to the organization of bus stops along the Small Ring or around the "Skenderbej" square, there are 13 stops and 1 terminus in this area (of PT lines – urban/suburban and of the airport shuttle bus), which is an interlink node of most of the city bus lines. The Small Ring itself serves as a main "terminal" for the interchange of many city lines.

Due to the PT network configuration and the absence of traffic restrictions along the inner ring, this means that vehicular motorized traffic is very intense in this area.

**FIGURE 3-26: BUS STOPS AND TERMINAL ALONG THE SMALL RING**

Source: MoT Department of Transport
**Fleet characteristics**

In total there are 411 buses circulating in the Municipality of Tirana: 310 belong to the city lines, 89 to the suburban service and 12 to feeder interurban lines.

Average age of the urban city fleet is **9 years**.

As from 2019 data released by AMK:
- 87% of city buses are low-floor and equipped with kneeling systems and platforms for people with reduced mobility;
- 62 buses are equipped with security cameras.

The following table list the main bus lines with their operators, fleet consistency and characteristics.

**TABLE 3-1: PT OPERATORS AND FLEET CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Bus Company</th>
<th>Bus Line Name</th>
<th>Bus Line Code</th>
<th>Fleet Size (Number of Buses)</th>
<th>Small Buses (7-8 m)</th>
<th>Regular Buses (12 m)</th>
<th>Articulate Buses (18 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferlut</td>
<td>Unaza</td>
<td>N.14</td>
<td>32</td>
<td>0</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>Tirana Lines</td>
<td>Lapraka</td>
<td>N.6</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Institut</td>
<td>N.5/B</td>
<td>15</td>
<td>0</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Alba Trans</td>
<td>Tirana e Re</td>
<td>N.13</td>
<td>32</td>
<td>0</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Tufina</td>
<td>N.7</td>
<td>9</td>
<td>0</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Uzina</td>
<td>N.5/A</td>
<td>15</td>
<td>0</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>T.U. Trans</td>
<td>Sauku</td>
<td>N.8</td>
<td>20</td>
<td>0</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Porcelani</td>
<td>N.11</td>
<td>17</td>
<td>0</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Shega Trans</td>
<td>Kombinat-Kinostudio</td>
<td>N.15</td>
<td>38</td>
<td>0</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Mag Utilities</td>
<td>Kopshti Zoologjik</td>
<td>N.2</td>
<td>11</td>
<td>0</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Gerard - A</td>
<td>Qyteti Studenti</td>
<td>N.9</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Mihal Grameno</td>
<td>N.10</td>
<td>17</td>
<td>17</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Kashari</td>
<td>N.3</td>
<td>21</td>
<td>0</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>Tirana Travel</td>
<td>Uzina Dinamo</td>
<td>N.12</td>
<td>24</td>
<td>0</td>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td>Remi Trans</td>
<td>QTU-City Park</td>
<td>N.4</td>
<td>16</td>
<td>0</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Diamond Society</td>
<td>Kristal-Allias</td>
<td>N.1</td>
<td>18</td>
<td>0</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td><strong>All PT operators</strong></td>
<td><strong>Urban PT fleet</strong></td>
<td></td>
<td><strong>308</strong></td>
<td><strong>40</strong></td>
<td><strong>211</strong></td>
<td><strong>57</strong></td>
</tr>
</tbody>
</table>

Source: MoT Department of Transport, as reported in Tirana’s strategic transport study, 2019
Fares and ticketing system

Public transport fares for lines up to 9 km are the following:

- Single ride and line ticket 40 Lek (0.33 €);
- Monthly Pass per line 1,200 Lek (9.82 €);
- Six months Pass for all lines 1,600 Lek (13.11 €).

Single rides tickets and monthly subscriptions refers to one line only. PT users who need to use more lines have to buy additional tickets or cards.

Only students can buy an integrated monthly card (i.e. valid on all bus lines within 9 km) at a cost of 600 Lek (4.92 €). Disabled people and military veterans can travel for free.

Single ride tickets can be bought inside the bus whereas monthly and or six-monthly cards can be bought at the kiosks close to bus stops or stations.

The electronic ticketing system is currently under implementation. Actually, all tickets and cards are in the paper format.

3.3.3 BUS TERMINALS

There are 4 bus terminals and 4 minor interchange urban/suburban nodes in Tirana as shown in the following map.

The location of the terminals is temporary because Tirana Municipality has planned the construction of new interchange facilities in the outskirts of the city. Existing western terminals will be entirely moved to the new Tirana railway station and multimodal hub (Tirana Public Transport Terminal - PTT) in Laprakë, which will become the terminus for all regional/international bus lines as well as an interchange with local transport, taxis and the future BRT line.

The terminal which will accommodate the long-distance bus lines towards the southeast of the country (Jug Lindor) will be moved near the Tirana East Gate (TEG) shopping centre.
3.3.4 SCHOOL AND SOCIAL TRANSPORT

Transportation of pupils in Tirana is managed by schools and carried out by private licensed bus companies.

With DCM No 89 dated 14.02.2018, the Albanian Government has set the rules the companies would need to follow in order to ensure a safe transportation of children at school. There are conditions about the vehicle and the driver. The licensing of the companies is responsibility of Tirana Municipality. The drivers are responsible for the children not only for the time on board but also during getting on and off the bus. The report to the people responsible in the school for the children behaviour during their trip from/to school is also an obligation of the driver.

3.3.5 Taxis

In Tirana there are currently around 1,000 licensed taxis.

A taxi ride to reach the city centre from the most peripheral neighbourhoods might costs on average 600 Lek (4.92 €).

Nevertheless, for every new application for licensing, the vehicle must fulfil one of the following conditions:

a) “Euro 6” or a newer standard (if one is set);

b) “Electric” car;

c) “Hybrid” car.

FIGURE 3-28: SCHOOL BUS

Source: TRT

FIGURE 3-29: GREEN TAXI TIRANA

Source: TRT
3.4 Cycling

3.4.1 CYCLING NETWORK AND FACILITIES

Although the number of people riding bicycles in Tirana is considerable, cycling facilities are limited. The current network infrastructure is composed of few stretches of bike lanes (28.5 Km approximately).

Even though the car is perceived as a status symbol, the bicycle is still considered an acceptable means of transport. This is seen as an indication that there is a thriving bicycle culture that needs to be reinforced.

Some of the recently refurbished streets have well-designed separated cycleways, while others have a painted line on the pavement that is usually ignored by car drivers.

The quality of the new sections of bicycle infrastructure is high, with smooth red asphalt and well-laid cobblestones.

Source: Municipality of Tirana Bicycle vision document, 2016
However, in other cases, there are some serious safety concerns regarding the position of stormwater drains, the high level of water during heavy rains and the presence of many potholes.

It can be observed that in cases when the infrastructure is located adjacent to vehicular traffic there is a difference in height between the roadway, the bike lane, and the walkway that represented a possible hazard for cyclists. As a result, it was observed that in these cases cyclists opted for sharing the road with vehicular traffic.

**Intersection treatments for bicycles are virtually non-existent.** Bicycles are often expected to cross with pedestrians. There are only a few examples of intersection in the city centre, where dedicated bicycle lanes allow bikers to cross safely.

According to the Bicycle vision document (2016), there is in Tirana a strong political support for improving the cycling culture and get more people to use the bicycle for transport. The Mayor in particular expressed strong support for the implementation (in the short term) of a minimal grid of separated cycleways.

**Temporary infrastructure**

At a first phase, the lanes are planned to be composed of temporary infrastructure through the implementation of tubular markers and a buffer zone. This action requires a road diet in order to reorganize the roads distribution and to relocate on-street parking. On the mid-long term these buffered bike lanes are to be retrofitted to protected cycle tracks, behind a curb next to the sidewalk.

**Permanent infrastructure**

The permanent infrastructure foresees protected cycle tracks raised to the sidewalk level. Street furniture and trees protect the bikers from the roadway and the pedestrian. However, the level differentiation sometimes represents a possible hazard for cyclists and force cyclists to use the vehicular lane instead of the bike line.
3.4.2 CYCLING SERVICES

Tirana counts today on **two different bike-sharing facilities**, the traditional (station-based) Ecovolis and the recently launched free-floating Mobike.

**Ecovolis** is a community-based bike sharing program launched in 2011. The system is based on 6 bike stations (around 300 bikes), respectively staffed by two employees in two shifts. Moreover, being a non-profit social enterprise, during particular days the program offers free bicycle service, cycling courses, donations of bicycles and helmets for children in need, bike tours and a bicycle recycle program.

Lats June, the Chinese company **Mobike**, which is by the number of bicycles the world’s largest shared bicycle operator, launched a service in Tirana. The launch is the result of a sustained collaboration between the company, the Municipality, and other local stakeholders. Mobike is an easily accessible free-floating service with no fixed docking station. Today, there are 1,000 bikes in operation and the city expect 3,000 more.

On the other side, stakeholders involved during the elaboration of the Bicycle vision document reported the lack of high-quality bicycle shops and maintenance support.

**FIGURE 3-33: BIKE SHARING SERVICES**

*Source: TRT - Mobike.com, 2019 -
https://mobike.com/global/blog/post/albania_launch*
3.5 Parking

3.5.1 ON-STREET PARKING SUPPLY

The city is classified into 4 zones that host a total of 7,938 car slots. The following figure shows the quarters covered by the 4 zones. A total amount of almost 8,000 on-street parking spaces is provided.

FIGURE 3-34: ON-STREET PARKING ZONES

![Map of on-street parking zones](source: Tirana’s strategic transport study, 2019)

<table>
<thead>
<tr>
<th>ZONE</th>
<th>CAR SLOTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1</td>
<td>3,060</td>
</tr>
<tr>
<td>Zone 2</td>
<td>1,953</td>
</tr>
<tr>
<td>Zone 3</td>
<td>573</td>
</tr>
<tr>
<td>Zone 4</td>
<td>2,352</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,938</strong></td>
</tr>
</tbody>
</table>

Source: Tirana’s strategic transport study, 2019

3.5.2 OFF-STREET PARKING SUPPLY

Before the TR2030 General Plan came in place, the preceding the JICA Study envisioned a series of parking facilities within the city centre. As of today, 5 of these facilities are active. The Municipality reported that 2 of the parking structures are currently under construction and 11 remain planned.

The map on the next page locates the existing, under construction and planned parking facilities. Off-street ground parking is also present in several parts of the city; the subsequent table shows the parking provisions for off-street underground and ground parking (limited to those for which data are present).
FIGURE 3-35: EXISTING AND PLANNED PARKING FACILITIES IN THE CITY CENTER

1. Bulevardi i Ri
2. Skenderbej
3. Behind Cultural Palace
4. Avni Rustemi Square
5. Rinia Park
6. Twin Towers
7. Opposite Rogner Hotel
8. QKR Building
9. Italy Square
10. Behind Qemal Stafa Stadium
11. Mine Peza Road
12. Pharmacy No. 10
13. Harry Fultz Institute
14. Physical Culture Institute
15. Next to the Ex-Exhibition
16. Selman Stemesi Stadium
17. Qyteti Studenti

Source: The Project for Tirana Thematic Urban Planning (2012), as reported in Tirana’s strategic transport study, 2019
### Off-street and Underground Parking Provision

<table>
<thead>
<tr>
<th>PARKING</th>
<th>TYPE</th>
<th>CPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dinamo</td>
<td>Ground</td>
<td>84</td>
</tr>
<tr>
<td>Infosoft</td>
<td>Ground</td>
<td>37</td>
</tr>
<tr>
<td>Asllan Rusi</td>
<td>Ground</td>
<td>70</td>
</tr>
<tr>
<td>Avni Rustemi</td>
<td>Ground</td>
<td>28</td>
</tr>
<tr>
<td>Diga e Liqenit</td>
<td>Ground</td>
<td>60</td>
</tr>
<tr>
<td>Qytet Studenti</td>
<td>Ground</td>
<td>108</td>
</tr>
<tr>
<td>Skenderbej</td>
<td>Underground</td>
<td>305</td>
</tr>
<tr>
<td>Bulevardi i Ri</td>
<td>Underground</td>
<td>329</td>
</tr>
<tr>
<td><strong>Total car parking provision</strong></td>
<td></td>
<td><strong>1,021</strong></td>
</tr>
</tbody>
</table>

Source: Tirana’s strategic transport study, 2019 and Tirana Open Data web portal

### Off-street Parking Demand

<table>
<thead>
<tr>
<th>PARKING</th>
<th>CARS/ MONTH (AVERAGE, EXCEPT AUGUST)</th>
<th>CARS/ SLOT/ MONTH</th>
<th>CARS/ SLOT/ DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dinamo</td>
<td>8,227</td>
<td>97.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Infosoft</td>
<td>1,309</td>
<td>35.4</td>
<td>1.2</td>
</tr>
<tr>
<td>Asllan Rusi</td>
<td>4,398</td>
<td>62.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Avni Rustemi</td>
<td>6,340</td>
<td>226.4</td>
<td>7.5</td>
</tr>
<tr>
<td>Diga e Liqenit</td>
<td>8,273</td>
<td>137.9</td>
<td>4.5</td>
</tr>
<tr>
<td>Qytet Studenti</td>
<td>10,078</td>
<td>93.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Skenderbej</td>
<td>22,987</td>
<td>75.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Bulevardi i Ri</td>
<td>4,278</td>
<td>13.0</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: Tirana Open Data web portal

### Parking Demand

The JICA Study states that the current ratio of the demand to the supply is below 1.0, based on the assumption of 8-hour operation (e.g., 8:00-16:00). However, the parking demand often concentrates causing oversaturation for a certain period of the day. Such an oversaturation period is generally observed from 9:00 to 14:00 in office buildings, from 11:00 to 14:00 in commercial buildings, and from 8:00 to 16:00 in on-street parking.

As for off-street public parking, data on monthly average usage is provided in the next table. In absolute values, the most used parking facilities are Skenderbej and Qytet Studenti, while Avni Rustemi and Diga e Liqenit have the highest rotation (7.5 and 4.5 cars per slot per day).

### Regulation and Fees

Tariffs for parking a car along the streets and in the squares varies together with the distance from Skanderbeg Square. 3 tariff zones (A, B, C) have been identified, according to the following map. In zone A, almost 70% of on-street parking is functioning as paid parking; in zones B and C less roads are involved.
On-street parking is subjected to a fee during the daytime from 7:30 to 20:00. After 20:00 and in the night time the parking is free of charge. Tariffs are the following.

<table>
<thead>
<tr>
<th>ZONE</th>
<th>FEE (PER HOUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100 Leks (~0.80 Euros)</td>
</tr>
<tr>
<td>B</td>
<td>40 Leks (~0.30 Euros)</td>
</tr>
<tr>
<td>C</td>
<td>20 Leks (~0.15 Euros)</td>
</tr>
</tbody>
</table>

Source: Tirana Parking Agency

Off-street (ground and underground) parking is also subjected to a fee, which has to be paid both during the day and the night. In this case, subscriptions are possible; the charges depend on the length of the subscription (1, 3, 6 or 12 months).

<table>
<thead>
<tr>
<th>ZONE</th>
<th>0-3 HRS</th>
<th>3-8 HRS</th>
<th>8-12 HRS</th>
<th>12-24 HRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>200 Leks (~1.60 Euros)</td>
<td>500 Leks (~4.10 Euros)</td>
<td>800 Leks (~6.60 Euros)</td>
<td>500 Leks (~4.10 Euros)</td>
</tr>
<tr>
<td>B</td>
<td>100 Leks (~0.80 Euros)</td>
<td>250 Leks (~2.05 Euros)</td>
<td>300 Leks (~2.45 Euros)</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>50 Leks (~0.40 Euros)</td>
<td>120 Leks (~1.00 Euros)</td>
<td>250 Leks (~2.05 Euros)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Tirana Parking Agency
Moreover, Tirana Municipality has started and already implemented the resident card system in some of the urban areas. The system divides the city in the aforementioned 4 zones (quarters). The residents of each zone have to be equipped with ‘Resident Card’ in order to park without being charged.

FIGURE 3-37: PARKING ZONES FOR RESIDENTS

Source: Tirana Parking Agency
3.6 Urban logistics

There are no specific datasets nor updated studies describing the current situation of urban freight transport in Tirana.

In terms of **vehicle access regulations**, the Municipality Decision nbr. 45193 of 6th February 2018 has defined the time and size restrictions for commercial freight vehicles in order to circulate in inner Tirana. These are briefly summarised here below:

- All vehicles except of cars, ambulances/ emergency vehicles and public transport vehicles are **not allowed to circulate inside the Inner Ring road from 7:00 to 20:00**;
- **Freight vehicles above 3.5t are not allowed to circulate from 9:00 to 20:00 inside the Middle Ring road and the radials** such as the streets Sulejman Delvina, Abdyl Frasheri, Ismail Qemali, Rruga Elbasanit and Bajram Curri Boulevard. The commercial units are allowed to organize their supply from 20:00 to 7:00 with big commercial vehicles and from 7:00 to 20:00 by vehicles up to 3.5t.
- **Heavy duty vehicles of more than 18t are not allowed to circulate inside the Outer Ring road and the respective radials from 6:00 to 20:00**.

In general, small commercial units in Tirana do not organize themselves the supply of goods (i.e. on an own account basis). Big providers and distributors already optimise shipments and organise deliveries by using light duty vehicles smaller than 3.5t. On the other side, for smaller items, shop tenants and retailers pay smaller freight transport companies to collect and distribute goods for them (i.e. on a groupage basis).

There is no evidence about the level of optimisation and the impacts generated by freight traffic in Tirana. The same applies for the provision and availability of facilities for city logistics.

At the New Bazar (Pazari i Ri), kiosk tenants and merchants in the open market move their remaining products to a small nearby warehouse they rented. Some might also use car garages in the vicinity of the market and this is a common practice also in other markets in the different neighbourhood.

Not surprisingly, in Tirana the use of cargo bikes is never disappeared. Cyclelogistics is therefore a common practice and a lot of frontload cargo trikes can be seen on city streets.

**FIGURE 3-38: CARGOBIKE AT THE NEW BAZAR**

Source: TRT
3.7 Sustainable mobility policies

The city of Tirana is an active member of the EU CIVITAS Forum Network and The Covenant of Mayors. A number of sustainable mobility policies have been implemented in recent years. We have identified in electric mobility, promotion of active and sustainable mobility behaviours and public space realm the three main areas of intervention that are presented hereafter.

3.7.1 ELECTRIC MOBILITY

The Albanian Government, through the General Directorate of Road Transport Services (GDRTS), is currently working at a supportive legislation to favour electric mobility throughout the country. Planned measures include measures such as:

i) an incentive ranging from 5% to 10% of the purchasing cost for a new electric car;
ii) free maintenance and ancillary services for electric car owners;
iii) incentives and discounts offered also to hybrid car owners.

There are currently 10 electric charging stations in Tirana. The Municipality has planned to equip all underground public parking with e-charging points. Of the 10 mentioned, only two belong to public garages (at Scanderbeg Square and along the Northern Boulevard).

Another ongoing project dealing with electric mobility, financed by IPA CBC funds and managed locally by the Chamber of Commerce and Industry Tirana (CCIT), is #Dynamob2.0 (https://dynamob20.italy-albania-montenegro.eu/). Two electric bike sharing stations are foreseen (at the Grand Park and in Marmica- Petrelë area), plus an additional electric charging station for cars to be installed in a parking at the New Bazar (a space and facility made available and under the supervision of the Municipality of Tirana).

In 2017, in order to cut emissions from public transport vehicles the Municipality launched an initiative called “The Green Line”. In order to allow a transition to electric traction for the whole bus fleet, a number of studies and evaluations are taking place. One consisted in the testing of one e-bus Solaris Urbino along the circular public transport line.
3.7.2 PROMOTION OF SUSTAINABLE MOBILITY BEHAVIOURS

A number of actions for the promotion of sustainable urban mobility behaviours have been already implemented and in Tirana and can be considered as permanent initiatives.

The Car-Free Day is organized in certain dates throughout the year. It aims at promoting walking, cycling and the use of public transport. The activity takes place at the main boulevard of the city “Dëshmorët e Kombit” that is closed to motorized traffic for the event.

A similar initiative, co-organised with the Ekphrasis Studio, is the HARP Park(ON) – Tirana Park(ing) Days that focus on democratic use of public spaces – particularly parking lots - for diverse artistic and cultural expression with the participation of communities in public arts.

Last but not least, the Bike Fair, organized during the European Mobility Week EMW 2019, and the Bike-to-Work initiative, promoted also by the Mayor, to encourage commuters to shift to cycling in their everyday traveling to work.

3.7.3 PUBLIC SPACE REALM AND KIDS-FRIENDLY URBAN POLICY

There is a strong political commitment in Tirana to implement a consistent child and family-centric policy across all city departments, particularly for the transformation of the physical environment. This commitment has been condensed in the participation at the Urban95 initiative led by the Bernard van Leer Foundation (Creating healthy, prosperous and vibrant cities where
babies, toddlers and their families thrive – see https://bernardvanleer.org/urban95-city/tirana-albania/).

More than 40 playgrounds have been renovated or newly created in just 4 years. Now the focus is on the redesigning of streets and the creation of new public spaces in the so called “grey areas” (e.g. intersections), local streets, the bicycle network and other spaces like kindergartens. These measures focus mainly into pedestrianizing certain streets in order to allocate more space to the people rather than private cars.

The Urban Design Unit (UDU) within the Urban Planning Department works in synergy with the Department of Transport and the Department of Public Works for the implementation of physical measures. Up to now they have realised 6 interventions at specific locations and 3 additional ones have been planned in 2020.

The unit is going to release the Tirana’s Urban Design Guidelines in order to coordinate the efforts among the different city departments and provide instructions also to private stakeholders and citizens.

Just lately, The Global Designing Cities Initiative (GDCI), a program of the National Association of City Transportation Officials (NACTO), announced that Tirana (together with three other international cities) has been selected for in-depth technical assistance and funding to develop child-friendly streets as part of GDCI’s Streets for Kids program. The program aims to advance street designs that create safe public space for kids of all ages and abilities to learn, play, and move about a city.

“Safe streets are essential so that everyone in cities can have access to the same opportunities and the same quality of life. This partnership will help give our youngest residents and their caregivers the option to get around as safely and easily on foot, bus or bike as anyone in a car.”

Erion Veliaj, Mayor of Tirana
4. Transport demand

This section provides relevant information on transport demand, namely the modal split in Tirana (presenting the results of the last survey conducted in 2008), the motorization rate, insights on observed and estimated traffic flows and typical traffic congestion profile, the users of public transport and the results of a behavioural and attitudinal survey that was performed on purpose during the development of the SUMP.

4.1 Modal split

The last large survey that created a comprehensive transport framework for Tirana was done from September to October 2008, targeting 7,000 interviewers who travelled daily to/from or within Tirana for different purposes. The survey was commissioned by the Municipality and brought as a result the drawing up of the “Municipal Roads Sustainable Transport Strategy” in 2009.

The results of the survey showed that about 75% of the interviewees travel regularly between 6:00 and 9:00 am, whereas the remaining 25% travel during the rest of the day. The demand forecast models have also been developed for the morning peak hours only.

Walking is taking up to 30% of the trips which is a considerably high share when compared to other cities worldwide, while public transportation takes up to 36%. These figures, although outdated, envisage the high potentiality and propensity to use alternatives modes to the private transport.

**FIGURE 4-1: TRIP PURPOSES**

- Familiar/personal: 3%
- Amusement: 6%
- Purchasing: 6%
- Study: 21%
- Work: 64%

Source: Municipal Roads Sustainable Transport Strategy, 2009
When considering trips to and from the suburbs, a separate Transport Opinion Survey was conducted. The figures revealed that once again the bus is by far the most used mode of transport, followed by private car. Walking is also taking 6% in spite of the long travel distances (1.5 km or longer).

The motorisation rate in Albania is currently equal to 160 cars/1,000 inhabitants and is very low compared to rates registered in Europe (around 500/1,000) and in the Balkans (around 250/1,000).

However, Albanian cities tend to have a higher motorisation rate than in the rest of the country. The current rate of car ownership in Tirana is 220 passenger cars per 1,000 inhabitants (as of 2018).
Interestingly (but not surprisingly), the **motorisation rate is growing at a high pace**, as the following table and graph show: both in Albania and in Tirana car ownership is more than doubled in just 7 years (2011-2018).

### TABLE 4-1: MOTORISATION RATE (CARS/1,000 INH.) IN TIRANA AND ALBANIA

<table>
<thead>
<tr>
<th>Geographic area</th>
<th>2011</th>
<th>2018</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tirana</td>
<td>105</td>
<td>220</td>
<td>+109.5%</td>
</tr>
<tr>
<td>Albania</td>
<td>71</td>
<td>160</td>
<td>+125.4%</td>
</tr>
</tbody>
</table>

Source: Tirana Open Data web portal

### FIGURE 4-5: MOTORISATION RATE (CARS/1,000 INH.) IN TIRANA AND ALBANIA

![Graph showing motorisation rate comparison between Tirana and Albania]

Source: Tirana Open Data web portal

According to the Tirana Open Data web portal, as of 2018 the city of Tirana has 179,167 road vehicles, namely the 31% of the total domestic vehicles. The number of passenger vehicles represents a share of the 88.3% over the total vehicle fleet, while 11.7% are goods vehicles. Motorcycles are almost 7.5% of the passenger vehicles circulating in Tirana.

### Traffic flows

Tirana’s road network today is clearly reflecting the fact that most flows are traveling either to/from west or north-west of the city. This is reflected by the alignment of the main highways and infrastructures with grade separation interchanges that ensure higher capacities and faster speeds. This flows distribution is due to O/D pattern and to the presence of Durres to the west (this city hosts the main national port along the Adriatic Sea coast), Fushe Kruje to the North and Elbasan (one of the main cities in the country) to the south. This three directions link Tirana to urban centres of 75,000-137,000 inhabitants. Meanwhile the infrastructure towards the east of Tirana links the city to the Dajti National Park and other minor towns.

In 2018 the National Government conducted the ‘Second Five Year Review of the Albanian Transport Plan (ANTP3)’ and as part of the efforts for this study a series of Automatic (ATC) and Manual (MTC) traffic counts were undertaken along the main national road network arteries.

The results of this campaign for the alignments leading to/from Tirana is portrayed on the next figure. As expected, the current flows are coherent with the location of the Durres Port and the main urban centres.
FIGURE 4-6: VEICULAR FLOWS ON MAIN ROAD NETWORK CONNECTIONS

Source: Second Five Years Review of the Albanian National Transport Plan, 2018 as reported in Tirana’s strategic transport study, 2019

On average, at city level, traffic flows in the last 2 years (2017-2019) are seen as almost stationary. However, differences between single roads can be highlighted: for city destinations, Rruga Llazi Miho has experienced the highest traffic flow rise, while in Rruga Kavajes (the continuation of Rruga Llazi Miho) a decrease of traffic flows has been registered; this is the result of the recent opening of the Tirana-Elbasan highway, which is used as a bypass of the city. For suburban destinations, Rruga Durresit is increasing its role as main urban road, while Bulevardi Zogu I is experiencing a decrease of traffic flows.

TABLE 4-2: TRAFFIC COUNTS (VEHICLES/24 H) IN RELEVANT TIRANA ROADS

<table>
<thead>
<tr>
<th>Road</th>
<th>Bound for</th>
<th>2017</th>
<th>2019</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rruga Dritan Hoxha</td>
<td>City</td>
<td>35,700</td>
<td>33,579</td>
<td>-5.9%</td>
</tr>
<tr>
<td>Rruga Llazi Miho</td>
<td>City</td>
<td>6,900</td>
<td>11,542</td>
<td>67.3%</td>
</tr>
<tr>
<td>Rruga Elbasanit</td>
<td>City</td>
<td>20,000</td>
<td>23,781</td>
<td>18.9%</td>
</tr>
<tr>
<td>Rruga Durresit</td>
<td>City</td>
<td>16,000</td>
<td>16,231</td>
<td>1.4%</td>
</tr>
<tr>
<td>Rruga Kavajes</td>
<td>City</td>
<td>29,000</td>
<td>20,282</td>
<td>-30.1%</td>
</tr>
<tr>
<td>Rruga Elbasanit</td>
<td>Suburbs</td>
<td>17,000</td>
<td>19,554</td>
<td>15.0%</td>
</tr>
<tr>
<td>Rruga Dibres</td>
<td>Suburbs</td>
<td>11,700</td>
<td>14,626</td>
<td>25.0%</td>
</tr>
<tr>
<td>Rruga Xhanfize Keko</td>
<td>Suburbs</td>
<td>9,300</td>
<td>9,398</td>
<td>1.1%</td>
</tr>
<tr>
<td>Bulevardi Zogu I</td>
<td>Suburbs</td>
<td>7,500</td>
<td>4,842</td>
<td>-35.4%</td>
</tr>
<tr>
<td>Bulev. Deshmoret e Kombit</td>
<td>Suburbs</td>
<td>21,500</td>
<td>17,976</td>
<td>-16.4%</td>
</tr>
<tr>
<td>Rruga Durresit</td>
<td>Suburbs</td>
<td>11,200</td>
<td>15,323</td>
<td>36.8%</td>
</tr>
<tr>
<td>Rruga Teodor Keko</td>
<td>South</td>
<td>26,400</td>
<td>24,278</td>
<td>-8.0%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
<td>-0.4%</td>
</tr>
</tbody>
</table>

Source: Tirana Open Data web portal

Concerning average traffic speeds during the normal phase (registered at 11:00, first table) and at peak hour (registered at 20:00, second table), it is interesting to note that, on average, the situation in the last 2 years (2017-
2019) is improving. In many cases, the positive variation of the average speed reflects the change in registered traffic flows.

### Table 4-3: Average Speed (km/h) in Relevant Tirana Roads at 11:00

<table>
<thead>
<tr>
<th>Road</th>
<th>Bound for</th>
<th>2017</th>
<th>2019</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rruga Dritan Hoxha</td>
<td>City</td>
<td>22.3</td>
<td>21.0</td>
<td>-5.8%</td>
</tr>
<tr>
<td>Rruga Llazi Miho</td>
<td>City</td>
<td>27.0</td>
<td>26.2</td>
<td>-3.0%</td>
</tr>
<tr>
<td>Rruga Elbasanit</td>
<td>City</td>
<td>27.0</td>
<td>15.7</td>
<td>-41.9%</td>
</tr>
<tr>
<td>Rruga Durresit</td>
<td>City</td>
<td>19.5</td>
<td>26.7</td>
<td>36.9%</td>
</tr>
<tr>
<td>Rruga Kavajes</td>
<td>City</td>
<td>11.4</td>
<td>39.1</td>
<td>243.0%</td>
</tr>
<tr>
<td>Rruga Elbasanit</td>
<td>Suburbs</td>
<td>22.0</td>
<td>24.3</td>
<td>10.5%</td>
</tr>
<tr>
<td>Rruga Dibres</td>
<td>Suburbs</td>
<td>12.0</td>
<td>27.3</td>
<td>127.5%</td>
</tr>
<tr>
<td>Rruga Xhanfize Keko</td>
<td>Suburbs</td>
<td>18.6</td>
<td>24.3</td>
<td>30.6%</td>
</tr>
<tr>
<td>Bulevardi Zogu I</td>
<td>Suburbs</td>
<td>22.7</td>
<td>23.4</td>
<td>3.1%</td>
</tr>
<tr>
<td>Bulev. Deshmoret e Kombit</td>
<td>Suburbs</td>
<td>34.6</td>
<td>37.2</td>
<td>7.5%</td>
</tr>
<tr>
<td>Rruga Durresit</td>
<td>Suburbs</td>
<td>23.4</td>
<td>19.5</td>
<td>-16.7%</td>
</tr>
<tr>
<td>Rruga Teodor Keko</td>
<td>South</td>
<td>33.2</td>
<td>35.8</td>
<td>7.8%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td><strong>22.8</strong></td>
<td><strong>26.7</strong></td>
<td><strong>17.1%</strong></td>
</tr>
</tbody>
</table>

Source: Tirana Open Data web portal

### Table 4-4: Average Speed (km/h) in Relevant Tirana Roads at 20:00

<table>
<thead>
<tr>
<th>Road</th>
<th>Bound for</th>
<th>2017</th>
<th>2019</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rruga Dritan Hoxha</td>
<td>City</td>
<td>19.0</td>
<td>28.5</td>
<td>50.0%</td>
</tr>
<tr>
<td>Rruga Llazi Miho</td>
<td>City</td>
<td>36.0</td>
<td>22.9</td>
<td>-36.4%</td>
</tr>
<tr>
<td>Rruga Elbasanit</td>
<td>City</td>
<td>19.0</td>
<td>16.4</td>
<td>-13.7%</td>
</tr>
<tr>
<td>Rruga Durresit</td>
<td>City</td>
<td>34.4</td>
<td>30.3</td>
<td>-11.9%</td>
</tr>
<tr>
<td>Rruga Kavajes</td>
<td>City</td>
<td>33.1</td>
<td>38.3</td>
<td>15.7%</td>
</tr>
<tr>
<td>Rruga Elbasanit</td>
<td>Suburbs</td>
<td>25.4</td>
<td>20.7</td>
<td>-18.5%</td>
</tr>
<tr>
<td>Rruga Dibres</td>
<td>Suburbs</td>
<td>13.4</td>
<td>29.1</td>
<td>117.2%</td>
</tr>
<tr>
<td>Rruga Xhanfize Keko</td>
<td>Suburbs</td>
<td>21.2</td>
<td>22.1</td>
<td>4.2%</td>
</tr>
<tr>
<td>Bulevardi Zogu I</td>
<td>Suburbs</td>
<td>20.0</td>
<td>30.0</td>
<td>50.0%</td>
</tr>
<tr>
<td>Bulev. Deshmoret e Kombit</td>
<td>Suburbs</td>
<td>39.3</td>
<td>42.6</td>
<td>8.4%</td>
</tr>
<tr>
<td>Rruga Durresit</td>
<td>Suburbs</td>
<td>22.1</td>
<td>16.5</td>
<td>-25.3%</td>
</tr>
<tr>
<td>Rruga Teodor Keko</td>
<td>South</td>
<td>37.2</td>
<td>38.4</td>
<td>3.2%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td><strong>26.7</strong></td>
<td><strong>28.0</strong></td>
<td><strong>4.9%</strong></td>
</tr>
</tbody>
</table>

Source: Tirana Open Data web portal

### 4.2.1 Typical Traffic Profile

In this section, an analysis of the typical traffic profile during a normal weekday is proposed. The following figures show what are the urban road sections on which vehicular traffic is typically flowing swiftly (green), lightly slowed down (orange) or severely congested (red or brown). The situation is depicted during morning rush hour (at 7:00, 8:00 and 9:00), in the middle of the day (13:00) and during evening rush hour (at 18:00, 19:00 and 20:00).
Evening rush hours are those during which traffic is more congested. Slow traffic flows recur in a few specific roads; these are:

1 | Rruga Dibres, inbound (traffic congestion is present in 7 panels);
2 | Rruga Hoxha Tahsim, inbound (7 panels);
3 | Rruga e Elbasanit, inbound (6 panels);
4 | Rruga Dritan Hoxha, inbound (5 panels);
5 | Rruga Abdyl Frashëri, Eastbound and Westbound (4 panels);
6 | Rruga Myslym Shyri and Rruga Ibrahim Rugova (3 panels).
4.2.2 ESTIMATED TRAFFIC VOLUMES

During the preparation of the “Project for Tirana Thematic Urban Planning” (JICA study), future traffic demand has been forecasted by applying the conventional four-step model methodology.

The diagram presented here show simulated traffic flows and flow/capacity (V/C) ratio on each road section in the base year case (was 2012). While it’s evident that some specific road sections are congested (this is a typical situation in every city in Europe during rush hours), roads and nodes capacity can be as considered as almost adequate if related with the number of vehicles owned by inhabitants (motorisation rate) and driven in the city (modal split).

Source: The Project for Tirana Thematic Urban Planning (JICA Study), 2012
Here the do-nothing case for 2027 is presented. If no action is taken, traffic concentration with a V/C ratio over 1.5 is forecast to occur in many roads inside the city and connecting the centre and the suburban areas, causing severe traffic congestion.

This implies that:

7 | significant improvement on the road network capacity could be necessary, with the risk of transforming the urban roads in highway-like corridors and the squares in complex interchanges;

8 | on the other side, important improvements in the public transport, cycle and pedestrian networks as well as in the quality of public spaces could be done with the aim of limiting the mobility demand that uses cars.

FIGURE 4-8: ESTIMATED TRAFFIC VOLUMES - DO NOTHING CASE 2027

Note: Unit PCU per 3 hours (6:00-9:00 am)
Source: The Project for Tirana Thematic Urban Planning (JICA Study), 2012
4.3 Public transport ridership

The urban public transport service is used on average by **200,000 people** every day or nearly **74 million** on a yearly basis.

These figures are substantially stable since 2016 despite the number of lines passed from 12 to 16. What is changing is the share of users buying single ride tickets: these are now 63.8% according to 1st semester 2019 data published by AMK with a consistent decrease of monthly pass and special cards subscribers.

**TABLE 4- 5: PASSENGERS ON THE URBAN PT NETWORK**

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>Unit</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of lines</td>
<td>N</td>
<td>12 &gt; 13</td>
<td>14 &gt; 15</td>
<td>15 &gt; 16</td>
</tr>
<tr>
<td>Number of Passengers</td>
<td>N</td>
<td>72 955 000</td>
<td>74 221 000</td>
<td>73 679 900</td>
</tr>
<tr>
<td>With a subscription</td>
<td>%</td>
<td>40.5</td>
<td>37.6</td>
<td>37.5</td>
</tr>
<tr>
<td>With tickets</td>
<td>%</td>
<td>47.4</td>
<td>60.2</td>
<td>61.3</td>
</tr>
<tr>
<td>Other such as booklets</td>
<td>%</td>
<td>12.1</td>
<td>2.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Average daily number of passengers</td>
<td>N</td>
<td>199 459</td>
<td>203 346</td>
<td>201 921</td>
</tr>
</tbody>
</table>

Source: AMK, as reported in Open Data Bashkia Tiranë 2019

The Tirana’s strategic transport study (2019), part of the Tirana Boulevard Central Park and River Project, provides ridership figures for each bus line (probably referring to the year 2017). These are substantially higher (+30%) than official AMK data.

**TABLE 4- 6: RIDERSHIP BY BUS LINE**

<table>
<thead>
<tr>
<th>Bus Line Name</th>
<th>Bus Line Code</th>
<th>Ridership (yearly passengers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unaza</td>
<td>N.14</td>
<td>12 868 590</td>
</tr>
<tr>
<td>Lapraka</td>
<td>N.6</td>
<td>2 559 095</td>
</tr>
<tr>
<td>Institut</td>
<td>N.5/B</td>
<td>4 387 019</td>
</tr>
<tr>
<td>Tirana e Re</td>
<td>N.13</td>
<td>13 453 526</td>
</tr>
<tr>
<td>Tufina</td>
<td>N.7</td>
<td>2 412 861</td>
</tr>
<tr>
<td>Uzina</td>
<td>N.5/A</td>
<td>4 387 019</td>
</tr>
<tr>
<td>Sauku</td>
<td>N.8</td>
<td>5 630 008</td>
</tr>
<tr>
<td>Porcelani</td>
<td>N.11</td>
<td>5 227 865</td>
</tr>
<tr>
<td>Komb.Kinos</td>
<td>N.15</td>
<td>15 208 333</td>
</tr>
<tr>
<td>Kopshti Zoologjik</td>
<td>N.2</td>
<td>2 559 095</td>
</tr>
<tr>
<td>Qyteti Studenti</td>
<td>N.9</td>
<td>2 924 679</td>
</tr>
<tr>
<td>Mihal Grameno</td>
<td>N.10</td>
<td>4 021 434</td>
</tr>
<tr>
<td>Kashari</td>
<td>N.3</td>
<td>5 630 008</td>
</tr>
<tr>
<td>Uzina Dinamo</td>
<td>N.12</td>
<td>6 214 944</td>
</tr>
<tr>
<td>QTU-City Park</td>
<td>N.4</td>
<td>4 021 434</td>
</tr>
<tr>
<td>Kristal-Allias</td>
<td>N.1</td>
<td>5 227 865</td>
</tr>
<tr>
<td>ALL LINES</td>
<td></td>
<td>96 733 775</td>
</tr>
</tbody>
</table>

Source: MoT Department of Transport, as reported in Tirana’s strategic transport study, 2019
As mentioned above, the three main lines in terms of ridership are 14 Unaza, 13 Tirana e Re and 15 Kombinat-Kinostudio.

The visualization above shows the passenger demand for each of the city lines.

**FIGURE 4-9: BUS FLEET AND RIDERSHIP BY LINE**

Source: MoT Department of Transport, as reported in Tirana’s strategic transport study, 2019

**FIGURE 4-10: NUMBER OF YEARLY PASSENGERS BY BUS LINE**

Source: MoT Department of Transport, as reported in Tirana’s strategic transport study, 2019
4.4 Behavioural elements: attitudes and perceptions of Tirana residents

This section summarises\(^1\) the results of a face-to-face survey, which was realised by Ipsos Albania in December 2019 with a population sample of 500 adult residents (18+) from the City of Tirana. The survey was performed on purpose as part of the activities related to the development of the SUMP.

The survey explores citizens’ perceptions and attitudes towards different modes of transport and gathers insights about motivational factors which might cause a switch from driving to more environmentally friendly modes of transport, such as public transport, walking, and cycling.

The survey applied the CAPI (Computer Assisted Personal Interviewing) data collection method. The sample is representative of the population with regards to age, gender, and administrative units of the City. Three stage random representative stratified sample was used.

Statistical documentation used to design the sample were census 2011 data from the Official Statistical Office in Albania, estimations for 2017. Sample universe were households with respondent aged 18+. The sampling frame was drawn from polling stations territory (approximate size of census units) within strata defined by urban administrative units.

Additional factors about the survey respondents were documented through the survey, including financial situation of the household, education level, employment status, as well as specific transport-related factors, such as car ownership, main mode of mobility, and several others.

4.4.1 OVERALL SATISFACTION AND USE OF TRANSPORT MODES

- The population of Tirana is moderately dissatisfied with their ability to move and reach places they need to visit. Observed dissatisfaction is more prevalent among car drivers than the others.
- For almost a third of the population, the most decisive feature of transportation is reliability, spontaneously reported by 32% of respondents.
- Among all the existing modes of transportation in Tirana, citizens usually walk to reach the desired destination. The next most frequently used mode of transportation is public transport (50%), followed by using a car either as a passenger (43%) or as a driver (24%). Finally, the least used mode of transportation is cycling (10%).
- When calculating the prevalence of transportation modes, public transport is the most widespread compared to other modes of transportation. Although, for some people, cycling might be a substitute for buses since those who ride cycles are less likely to use buses and the other way around.
- When it comes to frequency of transportation by car, more citizens use it always or very often as a passenger (43%) than as a driver (24%). More likely to drive a car are men, citizens between 30 and 45 years old, those who are employed, and those who report making enough money. Either way, none of these applies to more than a half of the population (54%) who never drive a car.

---

\(^1\) Full results are reported in the document: Attitudes and perceptions of Tirana residents towards different modes of transportation: survey report. IPSOS, January 2020.
There is a gender imbalance in the use of transportation modes - men drive cars more often than women, and women use public transportation more often than men.

4.4.2 PERCEPTION OF CAR USE

- Three quarters of citizens of Tirana think that driving makes air pollution in Tirana worse. At the same time, only 5% prioritise the environmental impact when deciding which mode of transportation to use.
- Only half of the citizens state that they consider the carous costs (service, tax, petrol, etc.) when deciding whether to drive a car or use other transport modes (51%).
- Regarding perception of other people’s driving, 3 out of 10 citizens strongly believe that other people don’t show safe and polite driving behaviour.
- 6 out of 10 citizens support the enforcement of strict safety regulations and measures (such as speed limits, traffic signs, etc.), to reduce the number of traffic accidents.
- Parking seems to be big problem for citizens of Tirana, since almost three quarters don’t believe that it is easy to find parking in Tirana.

4.4.3 PERCEPTION OF WALKING CONDITIONS

- 57% of citizens do not feel safe as pedestrians.
- One quarter of residents of Tirana strongly believe there aren’t enough sidewalks and that existing sidewalks are not in good shape (e.g. they are not wide enough, there are hydrants and other obstacles etc.). At the same time, 37% of citizens are dissatisfied with the number of places for rest (e.g. benches) and the amount of greeneries that make shade for pedestrians.
- High percentage of residents believe they would be very motivated to walk more often if there would be more car-free zones and more greeneries and places to rest. Also, better quality of sidewalks, better street safety, more attention from car drivers, vicinity of key services within walking distance and raising awareness about the benefits of walking for personal health and for clean air in Tirana, are perceived as very strong incentives for walking by vast majority of citizens.
5. Impacts

This chapter presents the main impacts generated by the mobility system on the social and environmental dimensions. With respect to the social dimension, it focusses the impacts on road safety (number of accidents and their severity). Regarding the environment, it presents the current situation of the city of Tirana in terms of noise and air quality. Finally, the topic of inclusive mobility and gender-related issues are also addressed.

5.1 Road safety impacts

The social impacts generated by the transport sector are primarily attributable to road accidents. The analysis is based on the data included in the Albanian Accident Database.

The significant demographic movements toward the main urban centres, the fast urbanization and the increased motorization contributed to a significant increase of road accidents in the last decades. Still, when looking at trends in the last three years, we can notice that the number of killed and heavy injured people in accidents decreased significantly.

It can be recognised that almost 80% of total accidents in the municipality of Tirana occur within the limits of the Tirana Administrative Unit, that is to say that they occur in a compact and dense urban environment. This number drop to 59% when considering only fatal accidents.

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>VAR % (2016-2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tirana Municipality</td>
<td>Tirana Unit</td>
<td>Unit/Municipality</td>
<td>Tirana Municipality</td>
</tr>
<tr>
<td>Killed</td>
<td>39</td>
<td>21</td>
<td>54%</td>
<td>34</td>
</tr>
<tr>
<td>Heavy injured</td>
<td>90</td>
<td>62</td>
<td>69%</td>
<td>66</td>
</tr>
<tr>
<td>Slightly injured</td>
<td>450</td>
<td>361</td>
<td>80%</td>
<td>495</td>
</tr>
<tr>
<td>Total</td>
<td>579</td>
<td>444</td>
<td>77%</td>
<td>595</td>
</tr>
</tbody>
</table>

Source: Albanian Accident Database
Road accidents with slightly injured people scattered all over the urban tissue, while the more severe ones (with either heavy injured or killed people) are mainly concentrated on the main road axis and corridors like SH2 and Rruga Dritan Hoxha, SH56 and Kavaja St and the boulevard along Lana River.

**TABLE 5-2: ROAD ACCIDENTS PER CONSEQUENCES, 2018**

<table>
<thead>
<tr>
<th></th>
<th>Tirana Municipality</th>
<th>Tirana Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Killed</strong></td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td><strong>Heavy injured</strong></td>
<td>56</td>
<td>44</td>
</tr>
<tr>
<td><strong>Slightly injured</strong></td>
<td>487</td>
<td>386</td>
</tr>
</tbody>
</table>

Source: Albanian Accident Database, 2019
As it comes to "black spots" according to accidents reported in the last three years (2016-2018), fatal accidents are mostly concentrated in main axes and corridors, especially in straight stretches of roads like SH2 and Rruga Dritan Hoxha, SH56 and Kavaja St and the boulevard along Lana River. This is due mainly to higher flows of traffic and speeds.

### TABLE 5-3: FATAL ACCIDENTS, 2016-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Tirana Municipality</th>
<th>Tirana Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>39</td>
<td>21</td>
</tr>
<tr>
<td>2017</td>
<td>34</td>
<td>22</td>
</tr>
<tr>
<td>2018</td>
<td>27</td>
<td>16</td>
</tr>
</tbody>
</table>

VAR % (2016-2018): -30.8% -23.8%

Source: Albanian Accident Database, 2019

During the last few years, the Tirana Municipality financed the implementation of speed reduction measures nearby sensitive areas such as elementary and medium schools, hospitals and alongside the main road corridors.

![FIGURE 5-2: LOCALISATION OF FATAL ACCIDENTS, 2016-2018](Image)

Source: Own elaboration based on Albanian Accident Database, 2019
5.2 Environmental impacts

5.2.1 FLEET COMPOSITION

The General Directorate of Road Transport Services (GDRTS) manages the database of all vehicles registered and circulating in Albania. According to official data, at the end of June 2019 the overall fleet consistency was of around 630,000 vehicles and 29% (179,167) are registered in the Municipality of Tirana. Around 78% of the registered vehicle fleet of Tirana consist of individual automobiles.

The average age of the overall fleet is very high at 18 years with average car fleet age being 13 years. In addition, the percentage of diesel cars in total vehicle fleet is also high at 63%, compared to the EU average of 41% (Tirana GCAP, 2018). Only 5% of the registered vehicles are electric.

In accordance to the approved Decree DCM nr. 633 of 26.10.2019, and with a clear strategy to minimize GHG emissions and improve air quality, the import of second hand vehicles has been restricted to EURO3 or upper emission classes for M2 and N1 categories, and to minimum EURO4 for M1 vehicles. Furthermore, only EURO5 technology is being allowed to be imported for the new vehicles in Albania.

This national policy has already started to show a positive trend: i) 47% more EURO4 second hand vehicles have been imported compared to the same period in 2018, ii) the overall vehicle fleet is reduced by 5,044 for the first time compared to the same period last year, iii) 14% more electric vehicles has been imported and registered compared to the same period last year.

Transport accounts for 33% of energy consumption and 64.5% oil consumption in the EU, while in Albania, the transport sector (mainly road transport) accounts for 47% of the total oil consumption compared to the domestic production of crude oil (NANR, 2016).

5.2.2 AIR QUALITY AND GHG EMISSIONS

In the EU, the transport sector accounts more than 25% of gas emissions. Whereas in Albania, even though there are no direct measurements regarding emissions, other data may correlate into assuming that transport sector plays a huge role in pollution concentrations.

During the last four years, the Albania’s Environmental Status Report (ESR) prepared by the Ministry of Environment (MoE) does not provide any scientific data related to air quality and emissions. This is due to inexistence of ongoing monitoring practices on neither of official measurements’ sites.

However, if we refer to the existing data and reports (back to 2014-2016) from the Public Health Institute (PHI), in Albania the environmental quality of major cities such as Tirana is being highly affected by the transport sector.

Between 2014-2016, air monitoring has been carried out by the National Environmental Agency (NEA) in two monitoring points: one located at MoE and one on NEA premises. Furthermore during 2011, 2013 and 2016, the Public Health Institute carried out measurements that were taken on an hourly basis by two additional monitoring static stations (located respectively near the Central Poly-ambulance-center of the city and at PHI building in the periphery of the city).

<table>
<thead>
<tr>
<th>Air quality measurements</th>
<th>GCAP Benchmark</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM2.5 concentration (annual average)</td>
<td>&lt;10</td>
<td>13.74</td>
<td>μg/m³</td>
</tr>
<tr>
<td>PM10 concentration (annual average)</td>
<td>&lt;20</td>
<td>25.14</td>
<td>μg/m³</td>
</tr>
<tr>
<td>SO2 concentration (daily average)</td>
<td>&lt;20</td>
<td>6.25</td>
<td>μg/m³</td>
</tr>
<tr>
<td>NOx concentration (daily average)</td>
<td>&lt;40</td>
<td>21.68</td>
<td>μg/m³</td>
</tr>
</tbody>
</table>

Source: ESR by PHI, 2011-2016
# TABLE 5-5: AIR QUALITY MEASUREMENTS AND STANDARDS

<table>
<thead>
<tr>
<th>Parameters</th>
<th>PM2.5</th>
<th>PM10</th>
<th>CO</th>
<th>SO2</th>
<th>NO2</th>
<th>VOC</th>
<th>O3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>μg/m³</td>
<td>μg/m³</td>
<td>μg/m³</td>
<td>μg/m³</td>
<td>μg/m³</td>
<td>μg/m³</td>
<td>μg/m³</td>
</tr>
<tr>
<td>Measurements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>19.24</td>
<td>35.44</td>
<td>0.43</td>
<td>6.3</td>
<td>23.83</td>
<td>55.79</td>
<td>55.79</td>
</tr>
<tr>
<td>2013</td>
<td>16.45</td>
<td>32.56</td>
<td></td>
<td></td>
<td>27.3</td>
<td>51.03</td>
<td>51.03</td>
</tr>
<tr>
<td>2014</td>
<td>54.06</td>
<td>0.85</td>
<td>15.52</td>
<td>35.01</td>
<td>32.64</td>
<td>32.64</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>57.34</td>
<td>0.87</td>
<td>10.46</td>
<td>42.38</td>
<td>33.34</td>
<td>33.34</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>52.05</td>
<td>0.8</td>
<td>13.66</td>
<td>47.63</td>
<td>22.33</td>
<td>22.33</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>26.22</td>
<td>2.56</td>
<td>62.49</td>
<td>49.32</td>
<td>9.94</td>
<td>9.94</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standards</th>
<th>AL</th>
<th>EU</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO2</td>
<td>60</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>PM2.5</td>
<td>25</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>PM10</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: INSTAT through https://opendata.tirana.al/

Currently, two alternative air quality-monitoring practices are acknowledged: I) MoT-Vodafone and, II) Green Lungs Project.

Two monitoring stations were installed by the Municipality in partnership with Vodafone Albania. Although not fully representative, they indicate very high levels (in excess of national and EU limits) of air pollution in Tirana (GCAP Tirana, 2018). Transport is considered the main contributor of air pollution in the urban area. The Municipality offers the information on air quality on the mobile App TiranaIme in real time.

On the other hand, the Green Lung for Our Cities (Green Lungs) - an EU funded project implemented by Co-PLAN Institute for Habitat Development and Milieukontakt Albania - is monitoring air quality, urban green areas and noise pollution in Tirana, Durrës, Shkodër and Elbasan. Urban densification and infill development of the urban core, combined with the reduction of public green spaces (rather lost due to land development) has led to higher indicator of pollutants’ concentration in the air. This is confirmed by the alternative monitoring of NO2, PM2.5, PM10 concentrations in Tirana (Green Lungs, 2019).

Looking at the figures reported in the following heat map figures, 87% of all 194 monitoring stations have recorded higher norms of NO2 according to the EU limit standard of 40 μg/m³. Values exceeding 100 μg/m³ have been recorded in most sensitive four sites, namely:

1. “Sheshi Italia” - agglomeration of bus stops
2. “Rruga e Elbasanit” – high congestion at the junction
3. “Faculty of Economics” – traffic congestion at the street lamp
4. “Rruga Sami Frasheri” – traffic congestion and high urban density

Referring to the two other air pollutants, PM2.5 and PM10, 8% and 15%, respectively, of all monitoring stations measured a higher norm than EU standards.
FIGURE 5-3: NO₂ CONCENTRATION (MG/M³) IN TIRANA’S CITY CENTER

LEGENDA

Source: Green Lungs 2019

FIGURE 5-4: PM10 CONCENTRATION (MG/M³) IN TIRANA’S CITY CENTER

LEGENDA

Source: Green Lungs 2019
Looking at the PM10 parameters, the values seem more optimistic. Nevertheless, 15% of the stations (29 in real numbers) measured an exceeding norm compared to EU standards. The maximum value showed 101 μg/m³ near “Tregu Çam” area. If we try to correlate the data and the period of monitoring, we may conclude these exceeding values can be linked to the construction activities ongoing near the sites.

Yet the last parameter analysed, PM 2.5, presents higher values than EU norms, 0.25 μg/m³. Only 8% of stations showed exceeding values up to 40% more than the EU standards. The hot spots are overlapping with those of PM10 and adding some more such as: Selvia junction, Air Albania Stadium, Rruga Kont Urani (behind MoESY), Zogu I Boulevard, etc.

Under the Green Lungs project also the surroundings of several education facilities have been monitored in order to evaluate air quality. The results show an alarming situation for most of the facilities, where the CO₂ exceeds the EU and Albanian standards by far up to 444.93 ppm compared to the standard 350 CO₂ ppm.

On the other side the two other pollutants, PM2.5 and PM10, seems to be within the allowed norms, country and EU standards.
FIGURE 5-6: CO2/PPM CONCENTRATION ON THE VICINITY OF EDUCATIONAL FACILITIES

Source: Green Lungs 2019

FIGURE 5-7: PM10 CONCENTRATION (MG/M³) ON THE VICINITY OF EDUCATIONAL FACILITIES

Source: Green Lungs 2019

FIGURE 5-8: PM2.5 CONCENTRATION (MG/M³) ON THE VICINITY OF EDUCATIONAL FACILITIES

Source: Green Lungs 2019
5.2.3 NOISE

In Albania, no public authority monitors noise pollution since 2017, even though it remains a legal requirement from the EU. If we compare the results published until 2017, we can conclude that the average noise pollution is exceeding the norms during the day and night by 10 dB, respectively.

**TABLE 5-6: NOISE POLLUTION (DB) IN TIRANA CITY CORE**

<table>
<thead>
<tr>
<th>Nr</th>
<th>Area</th>
<th>2016</th>
<th>2017</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daytime 6-23 (dB)</td>
<td>Nighttime 23-6 (dB)</td>
<td>Daytime 6-23 (dB)</td>
<td>Nighttime 23-6 (dB)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Shkolla e Bashkuar</td>
<td>62,35</td>
<td>52,87</td>
<td>65,86</td>
<td>55,4</td>
</tr>
<tr>
<td>2</td>
<td>Farmacia Nr.10</td>
<td>58,76</td>
<td>51,23</td>
<td>62,7</td>
<td>56,81</td>
</tr>
<tr>
<td>3</td>
<td>Stacioni i Trenit</td>
<td>61,56</td>
<td>52,61</td>
<td>66,27</td>
<td>51,69</td>
</tr>
<tr>
<td>4</td>
<td>Stadiumi Dinamo</td>
<td>60,32</td>
<td>53,6</td>
<td>62,86</td>
<td>54,43</td>
</tr>
<tr>
<td>5</td>
<td>Shkolla Edit Durham</td>
<td>61,87</td>
<td>60,41</td>
<td>61,52</td>
<td>59,95</td>
</tr>
<tr>
<td>6</td>
<td>Ish Banka Amerikane (Blloku)</td>
<td>58,65</td>
<td>54,07</td>
<td>63,1</td>
<td>56,54</td>
</tr>
<tr>
<td>7</td>
<td>Kryqëzimi &quot;Vasil Shanto&quot;</td>
<td>64,59</td>
<td>55,24</td>
<td>66,3</td>
<td>55,07</td>
</tr>
<tr>
<td>8</td>
<td>Kryqëzimi &quot;21 Dhjetori&quot;</td>
<td>67,97</td>
<td>61,03</td>
<td>64,19</td>
<td>60,3</td>
</tr>
<tr>
<td>9</td>
<td>Kryqëzimi: Drejtoria e Policisë&quot;</td>
<td>63,42</td>
<td>52,47</td>
<td>64,07</td>
<td>53,86</td>
</tr>
<tr>
<td>10</td>
<td>Laprakë</td>
<td>67,33</td>
<td>65,18</td>
<td>66,02</td>
<td>62,13</td>
</tr>
<tr>
<td>11</td>
<td>Pallati i Kongreseve</td>
<td>63,8</td>
<td>51,16</td>
<td>66,94</td>
<td>59,16</td>
</tr>
<tr>
<td>12</td>
<td>Partizani Panjohur</td>
<td>67,42</td>
<td>59,49</td>
<td>70,14</td>
<td>53,67</td>
</tr>
<tr>
<td>13</td>
<td>Kryqëzimi te Selvia</td>
<td>69,53</td>
<td>58,34</td>
<td>69,55</td>
<td>51,71</td>
</tr>
<tr>
<td>14</td>
<td>Rruga Elbasanit</td>
<td>73,81</td>
<td>57</td>
<td>73,8</td>
<td>55,99</td>
</tr>
<tr>
<td>15</td>
<td>Sheshi Skëndërbe</td>
<td>65,78</td>
<td>58,48</td>
<td>70,29</td>
<td>55,06</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td><strong>64,5</strong></td>
<td><strong>56,2</strong></td>
<td><strong>66,2</strong></td>
<td><strong>56,1</strong></td>
</tr>
</tbody>
</table>

Source: INSTAT through https://opendata.tirana.al/

As mentioned earlier, the Green Lungs project has published its' maps showing the noise pollution in Tirana’s city centre. The recordings were held throughout the day in three time slots (morning, midday and during the night), and 168 alternative stations.

The stations were organized in 49 smaller areas of two main zones: zone A referring to the core centre of the city (inner ring rode, main boulevard, Mother Teresa square, stadium, etc.) and zone B surrounding the whole zone A (except the south where both zones share boundaries with Tirana Artificial Lake Park.

The results are striking as the **noise pollution is present in the city starting from the early morning**, which is the highest compared to the other shifts of the day. According to Green Lungs, this is closely related to transport and mobility. The records of almost more than 70% of the study remain above the Albanian and EU standards of 55 db. The results from midnight measurements show a high pollution regarding the context and health needs of the population to rest.

Referring to the numbers, we may say that Zone A reflects a quieter medium than Zone B; even though both areas tend to exceed the norm 55 dB by 10 dB more on average. Trying to interpret the data, during the night, the area monitored is exceeding by 20 dB the norms. This may have severe effect on population health if exposed for a long period.

Zone B seems to be of highly polluted by noise during the night, reaching 65 dB, which is quite striking as a value for night hours, when the residents need to rest.
**TABLE 5-7: NOISE POLLUTION (DB) IN TIRANA CITY CORE**

<table>
<thead>
<tr>
<th></th>
<th>Morning</th>
<th>EU and AL Standards</th>
<th>Midday</th>
<th>EU and AL Standards</th>
<th>Night</th>
<th>EU and AL Standards</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone A</td>
<td>62.1</td>
<td>55</td>
<td>62.7</td>
<td>55</td>
<td>59.8</td>
<td>45</td>
<td>61.5</td>
</tr>
<tr>
<td>Zone B</td>
<td>70.5</td>
<td></td>
<td>70.2</td>
<td></td>
<td>65.1</td>
<td></td>
<td>68.6</td>
</tr>
<tr>
<td>Overall</td>
<td>66</td>
<td></td>
<td>66</td>
<td></td>
<td>62</td>
<td></td>
<td>65.1</td>
</tr>
</tbody>
</table>

Source: own elaborations and Green Lungs 2019

Source: Green Lungs 2019
5.3 Inclusive mobility and gender-related issues

Tirana owns a diversified social mix of residents in its urban area. After the fall of communism in 1990, about 60,000 apartments formerly owned by the State were sold at nominal cost to existing tenants. Poor and low-income people were therefore not pushed out from centrally located and popular neighbourhoods whereas the lack of infrastructures outside the city prevented the formation of luxury suburbs, with middle class residents (but also newcomers) preferring to remain near the city centre. Tirana has therefore a long-established egalitarian population structure throughout its built environment even if gentrification phenomena and specialisation of some areas are also ongoing.

As already highlighted before, the legacy of land-use and restricted car ownership policies during socialism is a strong urban density within the boundaries of Tirana as they were prior to the 2015 administrative reform.

Within the compact and socially diversified city where also facilities and services are widely distributed, a large number of trips (from typical work/school commuting to various daily tasks or leisure purposes) occur on short distances and can be made by walking, cycling or public transport as it happens in the real world (see chapter 4 Demand). This is a very positive element for the mobility of more vulnerable user groups like low-income, elderly, children, women and people with reduced mobility (PRM).

On the other hand, internal migration flows from rural Albania, mostly involving low-income people unable to afford regular housing, led to the creation of the already mentioned informal settlements in city fringes. The metropolitan area expanded thus increasing the dependency of more peripheral suburbs and neighbouring cities (e.g. Kamëz), in terms of working opportunities and services, on the inner and older Tirana.

This rapid transformation generated a consistent increase of commuting trips from these areas and, as a consequence, added private transportation flows on the primary road network.

FIGURE 5-10: URBAN EXPANSION IN THE METROPOLITAN AREA OF TIRANA

Source: CoPlan as reported in Trafik!, 2011

It has to be underlined that the current public transport service provides a good coverage and acceptable level of service also to outer administrative units and particularly rural villages. These considerations are based on...
nominal scheduled rides and extension of the suburban network even if proper performance and fleet characteristics data as well as user surveys are not available.

**Car use and ownership** became a status symbol also for lower-class households with vehicular congestion representing a major critical element for more vulnerable social groups, including the ones living in inner Tirana.

According to the National Action Plan on Persons with Disabilities 2016-2020, independent mobility on Albanian streets is virtually impossible for people using wheelchairs or other walking with supportive mobility devices. This situation is less pronounced in Tirana where **accessibility of pedestrian infrastructures** is acceptable on the main road network (i.e. boulevards), in central squares and now also inside some public buildings. This process started at the beginning of 2000 with substantial investments made in the creation of continuous, well-paved, PRM-accessible and tree-lined sidewalks.

Despite these improvements still several streets have to be adapted for people with reduced mobility and parents using strollers, particularly in outer neighbourhoods where portions of the road space might also be unpaved or in poor conditions.

Quiet and narrow local streets inside each neighbourhood, including central ones, can be inaccessible or poorly accessible due to both insufficient quality of the infrastructure, absence of sidewalks due to limited width of the road section and obstruction of walking paths caused by illegal or not regulated parking.

![FIGURE 5-11: LACK OF ACCESSIBILITY IN CENTRAL NEIGHBOURHOODS](source: TRT)

Very few streets and public buildings have raised or tactile markings for the blind and there are no sound signalling devices at street, road crossings or on public transport vehicles. Bus stops are also not marked, making orientation very difficult.

Recently, some investments have been realised in order to improve accessibility at some intersections in the city centre. This means that proper knowledge and practice exist at local government level.
The Law “On inclusion of and accessibility for persons with disabilities” defines the services needed to promote independent living, including personal assistance, supportive technical equipment and devices, accessibility services (including transport), reasonable accommodation, and, where necessary, supported decision-making.

Accessible, affordable and efficient transportation is essential to enabling the inclusion of people with disabilities in society, facilitating mobility and promoting participation in employment, education, and other activities. The present legislation envisages the provision of assisted transportation for persons with disabilities in urban and rural areas, reduced ticket fares, and designated disabled seats.

The mentioned National Action Plan is quite unequivocal in stating that in practice “virtually no public transportation vehicles are accessible to persons with disabilities”. Having no evidence about the accessibility level of the suburban PT fleet, at least city buses are sufficiently accessible: 269 vehicles out of 310 (87%) are low-floor and equipped with reserved seats, kneeling systems and platforms for people with reduced mobility.

Public transport is free of charge for disabled people: they need to request a special card that allows them to use all lines and services.

The number of disabled children who need to use free and assisted special transportation services from their home to educational institutions is not known. The same applies for mobility impaired people who need to reach local health services.

In order to facilitate transport accessibility, the government has exempted personal vehicles of paraplegics and tetraplegics from customs duties. Moreover, persons with disabilities can make modifications to their vehicles before applying for a driving licence. They are also exempt from parking fees and road tolls.

According to the government’s first report on the implementation of the UN Convention on the Rights of Persons with Disabilities, “persons with disabilities are rarely able to use the 52 reserved parking spaces at 35 different locations and there is no disabled parking available in front of ministry office buildings in Tirana”.

Nominal vs real availability of reserved parking slots, especially on-street ones in the vicinity of the main facilities and services, can be problematic in some areas of Tirana due to both insufficient provision and illegal parking.

When looking at the mobility of children and young people, it has to be noted that Albania has a relatively young population, with residents under 15 constituting nearly one fifth of the whole population in Tirana. Therefore,
in Tirana lives a higher proportion of school-age children than in most European cities.

School access is generally adequate and schools are well distributed, especially in the inner city. The results of a study carried out in 2012\(^2\) showed that an overwhelming majority of students (78.9%) walk to school; only 13.5% are driven to school, while bicycling and bus use are minimal.

The study also found that parents in Tirana are concerned with the risk of traffic accidents, kidnapping or harassment on the child’s way to school, which mirror the findings of international studies. As the researchers highlighted “in the future parental concerns over factual and perceived dangers could lead to a situation in which more parents drive their children to school as incomes and car ownership increase”. This suggest to give high monitor parents perceptions and child mobility behaviours and to strongly link these considerations to the policies and initiatives the city has already in place to improve the quality of the urban environment and of childhood spaces and services (e.g. U95, playground, etc.)

Gender-related transport poverty aspects of the mobility system in Tirana, particularly in relation to job access and social condition of women, have been widely analysed in a recent research\(^3\) based on a survey carried out in 2014 of approximately 500 women of working age living in four neighbourhoods of Tirana (Qyteti Studenti, Lapraka, Kinostudio and Selita). The areas were selected because they are located in contrasting settings in terms of neighbourhood age, accessibility, public transport provision as well as fabric characteristics.

The conclusions of the study are entirely reported in the following box.

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\(^3\) Elona Pojani, Kobe Boussauw & Dorina Pojani (2017) Reexamining transport poverty, job access, and gender issues in Central and Eastern Europe, Gender, Place & Culture, 24:9, 1323-1345
6. Institutional and regulatory framework

This section provides an inventory of relevant legislation and policy documents that are relevant for the drafting of the Sustainable Urban Mobility Plan of Tirana.

**Law No. 8417/1998 on “Local Governing Units”**

Albanian Institutional and legal framework on environmental protection and land use, powers and responsibilities of the Local Governing Units (LGU). Local government is organized upon the basis of the principle of decentralization of power and is exercised according to the principle of local autonomy. LGU have independent local budget which is set in the manner provided by the law.


NEEAP contains a description of measures to be taken to improve energy efficiency in the key sectors of the economy. It provides a package of measures to be implemented to improve efficiency the housing, services, industry, transport, and agricultural sector.

**Law No. 118/2012 On the transportation of the dangerous goods**

This law aims to increase safety in road and railway transport of dangerous goods. Participants in the transportation of dangerous goods shall take all measures necessary, in accordance with the forecasted nature and extent of the risks, to reduce or avoid damage to people, property and the environment.

**Law No. 91/2013 On Strategic Environmental Assessment**

Aims to ensure high level protection of the environment or sustainable development through involving environmental issues during drafting, approval, reviewing, amending and adapting of plans and programs.

**Law No. 162/2014 on the protection of ambient air quality**

Aims to improve public health and ensures a high level of environmental protection by integrating air protection in other policies. It also defines the requirements for monitoring and reducing emissions and plans for air quality management.
Law No. 162/2014 on the protection of ambient air quality

Aims to improve public health and ensures a high level of environmental protection by integrating air protection in other policies. It also defines the requirements for monitoring and reducing emissions and plans for air quality management.

Law No. 115/2014 on the administrative division of local gov. units

The new territorial division ended the extreme fragmentation of the country's administrative, already organized by the local government territory in only 61 municipalities.

General National Plan 2015-2030

Provides the strategic framework for sustainable development for Albania over the next 15 years, in order to ensure a balance between economic and social development, and the responsible management of its natural resources, protecting the environment.

Nationally Determined Contribution

Albania has committed to an Intended Nationally Determined Contribution as part of the Paris Agreement. It is to reduce CO2 compared to baseline scenario between 2016 and 2030 by 11.5%. The INDC covers the energy and industrial processes sector. There is national commitment to decouple economic growth and GHG emissions.
7 Planning and programming framework

This section includes a summary of the existing plans and studies which are strategically relevant to shape the future of Tirana’s urban mobility.

Many of the proposed strategies and actions influence directly or indirectly the drafting of the Sustainable Urban Mobility Plan.

**Second Five Years Review of the Albanian National Transport Plan, 2018**

The European Delegation to Albania selected TÉCNICA Y PROYECTOS, S.A. (TYPSA) to develop the "Second Five Years Review of the Albanian National Transport Plan (ANTP3)". The ANTP3 is an update of the previous version of 2010, the ANTP2. The plan was funded by the European Union and had the objective of developing the transport sub-sector by putting together a variety of action plans.

**Green City Action Plan of Tirana, 2017**

The Green City Action Plan (GCAP) provides a vision and a concrete set of actions to address the pressing environmental challenges affecting Tirana over the coming years, and to secure investment in priority environmental infrastructure projects. The GCAP aims to enable people to enjoy a healthy and high-quality life in a green, resilient and inclusive Tirana that makes smart use of resources.

**Tirana 030 General Local Plan, 2016**

The General local plan for Tirana (TR030) has been approved in 2017 by the National Government. The plan was designed by Stefano Boeri Architetti together with UNLAB and IND. The new General Local Plan, includes the entire metropolitan area of Tirana and also takes into consideration rail links with the airport and the port of Durazzo, green areas and green corridors, public transportation, new areas of controlled development and the enhancement of the architectural heritage.

**Municipality of Tirana Bicycle Vision Document, 2016**

In 2016, the Embassy of the Kingdom of the Netherlands has invited Mobycon to assist the City of Tirana to develop the Bicycle vision Document. The goal of this project is to assist the Municipality of Tirana with cycle mobility planning and to provide guidelines for Tirana 2030 General Local Plan and the Sustainable Urban Mobility Plan.

**The Project for Tirana Thematic Urban Planning, 2012**

This document proposes “Master Plans” on long term perspectives targeting the year of 2027 and a “Action Plan” for priority projects. Environmental and institutional discussions are also included to seek for a rational way to the implementation of proposed plans.

**The Tirana Boulevard central Park and River project, 2015**

The Masterplan of Tirana, prepared by Grimshaw in 2015, proposed the extension of the main boulevard, re location of the train station, a new high-rise administrative area, a pilot eco district and rehabilitation of the Tirana River. In 2019, Mobility in Chain prepared the Tirana’s strategic transport study, a detailed traffic study report for Grimshaw’s project.
7.1 Second Five Years Review of the Albanian National Transport Plan

On 2010 Albania commissioned the ANTP2 (Albanian National Transport Plan Study) which was funded by the European Union and had the objective of developing the transport sub-sector by putting together a variety of action plans. In 2018, The European Delegation to Albania selected TÉCNICA Y PROYECTOS, S.A. (TYPSA) to develop the "Second Five Years Review of the Albanian National Transport Plan (ANTP3)". The ANTP3 is an update of the previous version of 2010. The Plan is intended to comprise the Transport Plans for each Sub-sector for 20 years period of time, and an overall National Transport Plan.

The overall objective of the Second Five Years Review of the Albanian National Transport Plan (ANTP3) is "the to enhance the economic and social development of Albania, fostered by an efficient transport sector within a comprehensive policy framework".

The analysis describes an overall comprehension of socioeconomic characteristics, identification of the freight and commodities flows and productions, passenger and freight traffic analysis, transport sector needs assessment, prioritization of development of transport infrastructure, among other subjects.

Specific actions that comprise the area of Tirana are:

- Albanian National Road Network: Completion of Tirana Outer Ring Road (Northern section) – 2019-2023
- Urban Transport: New Bus terminal in North West entrance of Tirana – short term

7.2 Green City Action Plan

The Green City Action Plan (GCAP) was prepared by ARUP and developed in accordance with the methodology developed for the European Bank for Reconstruction and Development (EBRD) by ICLEI and OECD. It was finalised in April 2018.

The plan provides a vision for Tirana and a concrete set of actions to address the environmental challenges affecting Tirana over the coming years, and to secure investment in priority environmental infrastructure projects. It addresses environmental issues faced by the city such as air pollution, urban growth, renewable energy and recycling.

The GCAP supports implementing an integrated public transport system with low-emission buses, constructing green corridors and creating legislation to protect green spaces. It also promotes an energy-efficiency programme for municipal buildings, as well as mechanisms to incentivise investment in energy-efficient technologies, household waste collection and recycling centres.

The document presents several findings which were used to prioritise the main challenge for each of the following topics:

- Sustainable Mobility
- Green Spaces & Biodiversity
- Sustainable Energy
- Resource Management
- Climate Change Resilience & Adaptation

A set of actions, strategic objectives and indicators were defined within each of the five thematic areas helping to achieve the goals defined for the city in
the next years, reorganize the capital investment programmes and projects, and prerequisite policy, legislative and regulatory measures.

Some of the underpinning targets and planned actions in terms of urban mobility are to:

**Increase shift to public and active transport:** Achieve 70% mode split for public and active transport modes.
- Reallocation of street space to buses and cyclists
- Implementation of an Integrated Public Transport System (IPTS)
- Implementation of Bus Rapid Transit (BRT) infrastructure
- Replacement of buses with low emission buses
- Implementation of a dock-less bikes rental system
- Upgrade of taxi fleet with hybrid or electric models

**Smart Mobility:** Increase Municipality’s capability to analyse and make 100% data-driven decisions on all journeys based on ridership data.
- Provision of integrated cashless ticketing for different transport modes

**Ending sprawl:** Reduce average commuting distance to under 7.5km.
- Metrobosco

**Cross-cutting:**
- Sustainable Urban Mobility Plan and related SEA
- Introduction of a road code and traffic rules for cycling
- Strengthening of the modal priority policy

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**7.3 Tirana 030 General Local Plan**

The City’s General Local Plan was developed by Stefano Boeri Architects in collaboration with UNLAB and IND. It was officially approved in February 2017 and it is a key document to be considered when developing the SUMP.

The plan seeks to define a new era for Tirana, incorporating controlled development, advanced infrastructure, green corridors, and an enhancement of the city’s architectural heritage.

This local plan has been written with a strong consideration of the strategic goals outlined in the National General Plan. Therefore, there is strong unity between the larger vision for Albania and this plan illustrates how Tirana will realise that vision.
The strategic vision for Tirana 2030 is structured in 10 pillar, 23 main policies and 13 strategic projects. Some of the underpinning elements in terms of urban mobility are to:

**Create a multimodal transport hub in Tirana with different types of public transportation. Key aim to make the city as accessible as possible.**
- Achieve two green and sustainable Rings (2nd and 4th), linear parks dedicated to pedestrian, cycling, public transport and soft mobility.
- Complete the public transport network in the city centre with a Circle Line along the 4th Ring and a public transport line along the Boulevard Dëshmorët e Kombit.
- Stimulate all shared mobility (bike, car, scooter...) and sustainable modes of transport (electric and hybrid carriers) in order to guarantee a nimble and ecologic mobility to citizens.
- Define restricted traffic areas pedestrian inside the 1st ring and shared mobility system within the 4th ring.
- Complete the 5th ring for heavy transport and complete a park and ride system along the main entrances to the city.
- Achieve a high-speed railway network connecting the city centre with the airport and the port.

**Create a polycentric Tirana avoiding urban sprawl**
- Create a Green Belt around the City to prevent urban sprawl, to expand current green spaces, and to connect existing ones.
- Define the urbanized area line setting the boundaries where intensity and the development should be concentrated while the rest of the territory foresees low intensity, boosting policies to protect agricultural production and the natural territory.
- Bring together in one masterplan all areas and ongoing projects along Bulevardi Dëshmorët e Kombit from Lake Park to Tirana River Park and introduces the idea of creating a new major public space with a clear and recognizable morphology.

**Create a metropolitan city making all services to citizens, tangible and intangible commons goods accessible and usable by a universality of people** (regardless of their skills, temporary or permanent physical conditions, age, gender, any need to bring with them).
7.4 Bicycle vision document

The Embassy of the Kingdom of the Netherlands has invited Mobycon to assist the City of Tirana in gaining a deeper understanding about the practice of bicycle network and infrastructure planning. The goal of this project is to assist the Municipality of Tirana with cycle mobility planning, but more importantly, to inspire, coach and assist the City Staff, making sure that bicycling and walking are well-represented in the new Tirana 2030 General Local Plan and the Sustainable Urban Mobility Plan.

In this project, the insights in cycling are delivered through interactive workshops, as well as through desk research.

The workshop(s), with the participation of different planners, engineers and other stakeholders, have discussed the existing, the desired cycling network and the street design approach. Following the first workshops, a minimum grid is proposed, accompanied by a mid and long-term desired cycling network. A design strategy is also recommended, and certain priority streets are highlighted.

Altogether this report provides an overview of the existing level of cycling on the network level, the design level and communication level.
7.5 Tirana Thematic Urban Planning

This study was published in December 2012. Although this study was published under the previous City administration, Mayor Veliaj has recognised the value of this report.

The study consists of two main objectives. The first one is to develop thematic urban plans, based on the New Regulatory Plan which has been launched by the new municipal administration, and their implementation plans in the form of short and medium-term action plans; the second one is to transfer relevant skills to the Albanian counterpart personnel in the course of the Study to ensure the continuous implementation of the urban plans to be developed in the Study.

The Study was focused on four key subsectors for the urban infrastructure development:

- Roads and Urban Transportation;
- Solid Waste Management;
- Water supply system; and
- Sewerage/drainage system.

As part of this study short term action plans and thematic urban infrastructure development plans were developed. It also provides detailed context on Tirana including background information on population growth, employment projections, economic growth projections, education, land use planning and so forth.
7.6 Tirana Boulevard Central Park and River project

The Tirana Boulevard Central Park and river project or “Masterplan of Tirana” was planned in 2012 by Grimshaw Global Arch. In 2019, Mobility in Chain has given support in revising the road network design and its phasing. The Timeline for the implementation is January 2016 to July 2021 with a municipal budget of EUR 63 million.

This was done by integrating a series of analysis: Tirana Strategic Transport Study aimed at understanding the current conditions of Tirana and the cities future vision, the Tirana Blvd. Master-plan Phasing, aimed at understanding how to implement the new road network more effectively as well as its impacts on the immediate surroundings, finally the Local Master-plan’s micro-simulation and road design revision.

The masterplan will have a significant impact on the City. It is necessary to confirm which parts of the masterplan are committed with funding and which are aspirational. The SUMP should consider actions on the basis of the completion of the committed project.

The main proposals of the masterplan can be summarised as the following:

- Extension of boulevard axis and integration with the urban tissue
- Re location of the train station to the north.
- A new high-rise administrative area at the space opened by the re location of the train station.
- An ECO-Neighbourhood as a pilot, focusing on energy efficiency and minimal environmental impact.
- Recreation areas which will be providing green and parking spaces, masking the infrastructure, and encouraging pedestrian movement.
- Tirana River revitalization for promenades, cruises, and sports.

The new development area will house an estimated residential population of 43,000 people and a total development area of 2,525,000 sqm comprising:

- 2,000,000 sqm of residential
- 275,000 sqm retail and office
- 175,000 sqm public facilities
- 75,000 sqm multi-level parking
8 Key challenges and SWOT analysis

This chapter presents the final outcome of the status analysis: the analysis of problems and opportunities for the development of the first Sustainable Urban Mobility Plan of Tirana.

First, a thematic analysis is presented for three key domains and relevant aspects of urban mobility in Tirana: private motorised transport, active mobility (cycling & walking), collective passenger transport.

Then, the main challenges the city of Tirana has to face in its progress towards sustainable urban mobility in 2030 are described along 5 topic clusters.

Finally, the third section is devoted to the SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis of the overall SUMP as key planning instrument for the city.

The analysis is based on the evidences collected and described in the previous chapters and on the results of the Workshop “Analysis and Strategies” held on 21st January 2020 with the representatives of the SUMP working group and other city officials of Tirana Municipality (see Annex).

8.1 Thematic analysis

The following tables summarises the shared analysis of 3 main thematic areas:

- Private motorised transport.
- Active mobility (walking & cycling).
- Collective passenger transport.

A prioritised list of problems is described together with the main drivers of changes that should be activated in order to positively influence policy implementation.
### Table 8-1: Analysis of Problems and Opportunities for Private Motorised Transport

<table>
<thead>
<tr>
<th><strong>Private Motorised Transport</strong></th>
<th><strong>Drivers of Change &amp; Opportunities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Problems to be Addressed</strong></td>
<td><strong>Drivers of Change &amp; Opportunities</strong></td>
</tr>
<tr>
<td>1. <strong>High traffic levels and congestion</strong> (also due to city compactness and concentration of services) causing air pollution and noise hindrance</td>
<td>1. <strong>Ongoing completion of the Tirana Ring Road</strong> and including some crucial split-level junctions</td>
</tr>
<tr>
<td>2. <strong>Old vehicular fleet</strong> causing severe impacts on air quality and GHG emissions</td>
<td>2. <strong>Improving traffic management performances</strong> thanks to ITS-driven procedures (both automated and technology-assisted)</td>
</tr>
<tr>
<td>3. <strong>Limited road capacity</strong> and difficulty to follow standards due to lack of space and presence of many narrow roads</td>
<td>3. <strong>Road and public space re-allocation</strong> (in favour of footpaths, PT or cycling lanes vs. private circulation and parking) already implemented and ongoing</td>
</tr>
<tr>
<td>4. <strong>Conflicts in road space allocation and usage</strong> between motorized and non-motorized users (cyclists, pedestrians) with both groups not respecting the rules</td>
<td>4. <strong>Paid parking</strong> already introduced with evidence on the modification of vehicular attraction and permanence in some areas</td>
</tr>
<tr>
<td>5. <strong>Limited parking offer and capacity</strong>, particularly off-street facilities, also for the residents</td>
<td>5. <strong>Parking zoning</strong> with limits also addressed to residents (who can park only in some specific areas)</td>
</tr>
<tr>
<td>6. <strong>Limits of police controls and enforcement</strong> also due to low fines/penalties</td>
<td>6. <strong>Strict traffic safety measures</strong> to reduce road accidents supported by 60% of Tirana citizens (from attitudinal survey)</td>
</tr>
<tr>
<td>7. <strong>Missing links of the main road network</strong> (northern and eastern sections of the outer ring road)</td>
<td>7. <strong>Strong inclination in walking</strong> and public support for car free zones</td>
</tr>
<tr>
<td>8. <strong>Increasing ownership and usage of private cars</strong> (also perceived as a status symbol by part of the society)</td>
<td>8. <strong>Low cost of electricity</strong> can favour e-mobility with supporting policies already launched (charging stations, fleet renewal)</td>
</tr>
<tr>
<td>9. <strong>Lack of knowledge of urban freight transport</strong></td>
<td>9. <strong>National ban from importing cars older than 10 years</strong></td>
</tr>
<tr>
<td>10. <strong>Lack of charging facilities for electric vehicles</strong></td>
<td>10. <strong>Traffic enforcement technologies</strong> such as Automatic Number Plate Recognition (ANPR) available on the market</td>
</tr>
</tbody>
</table>
### Table 8-2: Analysis of Problems and Opportunities for Active Mobility (Cycling and Walking)

<table>
<thead>
<tr>
<th><strong>Active Mobility (Cycling &amp; Walking)</strong></th>
<th><strong>Drivers of Change &amp; Opportunities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Problems to be Addressed</strong></td>
<td><strong>Drivers of Change &amp; Opportunities</strong></td>
</tr>
<tr>
<td>1. Lack of pedestrian areas</td>
<td>1. Excellent cycling and walking preconditions (good weather, flat area, short distances)</td>
</tr>
<tr>
<td>2. Lack of a network-based approach to walking with incomplete knowledge and assessment of continuous footpaths</td>
<td>2. Good evidence from other cities where road space reallocation to favour walking and cycling had no severe impact on motorised traffic</td>
</tr>
<tr>
<td>3. Poor quality or absence of both walking and public space facilities in some areas (e.g. sidewalks are too narrow, absence of benches to rest or shades while walking)</td>
<td>3. A lot has been already done by the city in the last few years and many projects are in place</td>
</tr>
<tr>
<td>4. Lack of ramps for people with reduced mobility and accessibility for hearing-impaired and blind people</td>
<td>4. Street design guide and team at the Planning Department: the city has specific skills and there’s attention to details</td>
</tr>
<tr>
<td>5. Declining living quality of quiet neighbourhoods due to car occupation of the public space</td>
<td>5. 75% of people already walk often or very often (from the attitudinal survey) and is therefore a common practice for the whole society</td>
</tr>
<tr>
<td>6. The cycling network minimum grid is not completed, some infrastructures are still missing and details are to be improved (e.g. no links to shopping centres, no traffic lights for bikes, inadequate intersections)</td>
<td>6. Strong political commitment to favour active modes</td>
</tr>
<tr>
<td>7. Absence of safe cycle parking facilities (hangars, garages, racks) in residential and institutional areas</td>
<td>7. People are in favour of more car-free zones</td>
</tr>
<tr>
<td>8. Poor use of the bike sharing system</td>
<td>8. The completion of Skanderbeg Square pedestrianisation project added evidence of the benefits of public space realm</td>
</tr>
<tr>
<td>9. Lack of clear rules (i.e. in the Road Code) and awareness of rules and correct behaviours from cyclists and pedestrians</td>
<td>9. Promotion of the City of Children concept and participation at the Urban95 policy agenda from Bernard van Leer Foundation</td>
</tr>
<tr>
<td>10. People do not feel safe to walk and cycle in the city because of car traffic</td>
<td>10. Cargo bikes and trikes are widely used for urban freight operations</td>
</tr>
<tr>
<td></td>
<td>11. Electric micro-mobility (e-scooters) could shift further demand from motorised modes and profit from cycling infrastructures</td>
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### Collective Passenger Transport

#### Main Problems to be Addressed

1. **Limited capacity vs demand**: buses are overcrowded and Tirana needs a mass transit system
2. **Lack of public funding**, both in terms of incentives or subsidies in case of market failures
3. **Absence of an integrated fare system** and difficulties in getting updated and complete information
4. **The current layout is line independent and do not encourage interchanges** (also because of the route-based contracting model)
5. **Limited or no priority to PT**, including the illegal use of bus lanes from private cars, negatively influences service reliability (delays, slowing commercial speed)
6. **Absence of interchange nodes and terminals** and poor quality of bus stops
7. **Absence of visual identity** and of clear information on the service (missing names of the bus stops, absence of timetables)
8. **Poor comfort on buses**, particularly when air conditioning is not installed or functioning
9. **Fleet age and diesel propulsion produces harmful emissions** (air quality and noise)
10. **High cost of e-buses**

#### Drivers of Change & Opportunities

1. **The projects for the BRT, the reform of the public transport and the new electronic ticketing system**, funded and supported by GIZ, have already started
2. **There is an ongoing project to improve access to information and quality of bus stops**
3. **Project the new railway station and intermodal hub** already approved and first tender for the renovation of the railway line Durres-Tirana and link to the airport already published
4. **Public transport is well sustained by ticket revenues**
5. **Private companies** (of both buses and taxis) can be a value
6. **Positive attitudes towards PT use**
7. **People consider public transport affordable** (from the attitudinal survey)
8. **Perception is that the level of service coverage is good** (from the attitudinal survey)
8.2 Key mobility challenges in Tirana

The mobility system of the city of Tirana, as presented and analysed in the previous chapters, is experiencing impacts and transformations linked to changes and developments in the urban environment, the economy of Albania and in living conditions and lifestyles of its citizens. Overall, the capital has to face a number of key mobility challenges that we briefly describe hereafter in 5 main topic clusters.

Governing land use patterns and mobility in a fast-changing environment: the resiliency challenge

Acute, rapid and informal urbanisation of Tirana’s outskirts due to massive internal migration resulted initially in a generalised lack of infrastructures, including roads, electricity, water, sewer lines and public/social buildings (e.g. schools, healthcare services). It also resulted in poor connection to central Tirana, increase of commuting trips, traffic congestion and ecological damage.

Legalisation of informal settlements was not an easy process, particularly the repossession of occupied land for the completion and improvement of the road network. Despite the progress made since mid-2000s, the city continues to feature significant areas of unplanned informal land-use in its peri-urban territory.

Also in the compact and rationally planned central Tirana, shared and green spaces within the neighbourhoods created during socialism suffer of declining infrastructure quality, lack of maintenance and a progressive conversion of these areas into parking lots. This is reducing opportunities for active modes (walking/cycling) and for social interaction. Public space realm interventions are difficult also because of the private nature of this areas.

Increasing motorised traffic pressure and safety concerns: avoiding the gridlock

Despite its relatively low car ownership ratio and as a consequence of its dense urban structure, the primary and secondary road network of Tirana is highly stressed by traffic congestion. All vehicle types’ flows rely on the main radial and ring roads and on outer-to-inner Tirana trips. Car ownership doubled in the last 7 years, a fast pace.

This is a consequence of both suburbanisation of housing and commercial activities and, conversely, of concentration of urban functions in central Tirana coupled with a preference in car use of some social groups. An unsustainable speedy diversion in modal shift started immediately after the fall of communism with the removal of the car ownership ban. Unfortunately, this trend is not yet stopped nor reversed.

Besides the volumes of vehicular flows and the presence of some critical hotspots at certain intersections, road infrastructures suffer from inadequate or limited physical capacity as well as of some crucial missing links (e.g. the Outer Tirana Ring Road). The new General Local Plan T030 finally provided the city with a more functional and hierarchical road system. Now it’s time to realise and complete the primary network, to separate collective vs. private flows, regulate vehicular accessibility in certain areas.
and limit the presence of on-street (legal or illegal) parking that exacerbate the daily levels of road congestion also in non-peak hours.

**Environmental impacts and concerns**

Air pollution levels in the city of Tirana indicate values in excess of national and EU limits with transport (i.e. emissions from vehicles) being the main contributor. A city-wide official and scientifically validated air quality monitoring system covering sensitive areas is still not in place, with only two permanent stations installed but more data are continuously provided also from independent and punctual campaigns (e.g. Vodafone-Tirana Ime, Green Lungs).

This is also a reflection of an unbalanced energy mix and consumption from the transport sector because of a high share of old vehicles, mostly diesel fuelled (63%, compared to the EU average of 41%), characterising the fleet. The average age of car fleet (total and by type) is very high at 13 years on average. This is a very urgent issue to be addressed in terms of public awareness, fiscal instruments and regulatory measures (e.g. low emission zones).

Research and measurements indicate that the majority of Tirana’s daytime noise is due to motorised traffic as opposite to the last decades when also the construction sector was a main source.

**A hub-less non prioritised unimodal public transport system**

The poor state of Albanian railways, coupled with the relocation of Tirana’s main station in outer Kashar with renovation projects ongoing for both infrastructure upgrading and construction of a new node in Laprakë, created a *de facto* absence of any rail system in the city. No light rail/tram has never been operated in Tirana. Also trolleybuses never appeared on Albanian roads. An uncommon situation comparing e.g. to other Eastern European cities.

The entire public transport system relies on bus transport.

While the service frequency is adequate and the quality of the vehicles has been improved, the capacity is low and buses often overcrowded. The number of dedicated bus lanes is also limited and no segregated busways nor proper interchange nodes have been built.

**Facing societal mobility challenges**

Tirana is characterised by a strong dualism in terms of mobility patterns: a relatively little but increasing share of the population consider private motorised transport as predominant and car ownership as a status symbol; on the other side there are large portions of the society largely using walking as their main transport mode. The first group largely influence pro-car attitudes of young generations whereas bad mobility experiences in walking or using public transport might divert additional shares to car use from the second group. In addition, despite infrastructure investments, bicycle use is still limited.

The capability of governing and influencing mobility behaviours and socio-cultural attitudes of both citizens and city users, framing active and collective mobility in a positive light, is therefore fundamental.
8.3 SWOT analysis

The following SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis highlights the most relevant elements that might affect the progress towards the full planning and implementation of sustainable urban mobility policies in Tirana as in its first SUMP.

Strengths and weaknesses mostly rely on the characteristics of the transport system (infrastructure, services), city policies as well as on internal organisational and technical capabilities at MoT departments and other agencies. Opportunities and threats are, on the contrary, more geographical, structural and/or external elements that can influence the process but with less direct power from policy makers to accelerate or alleviate their effects.

**STRENGTHS**

- A signed pathway towards sustainable urban mobility substantiated by a clear political commitment and a set of ongoing policies (e.g. cycling), plans and transport-related projects. A strong added value for the preparation of the first SUMP that is now asked to reinforce integration and elaborate a shared synthesis and strategy.
- Tirana’s physical development patterns includes a hierarchical mix of boulevard-based radial main roads coupled with a system of partial rings. This prevented a generalised distribution of road traffic also on local roads and led to the presence of quiet residential neighbourhoods also in central Tirana.
- Long-established experience in urban regeneration and upgrading of illegal settlements both in central and peripheral areas.
- Positive integration and interaction between planning and transport departments and presence of specific skills at city level (e.g. the Urban Design Unit, Tirana Traffic Control Centre).
- The expertise and practice gained in improving and upgrading many inner city roads with renovated pavements, wider sidewalks, new cycle lanes and other public space-oriented features. This is reinforced by the availability of MoT public works intervention team.
- Implementation-led coupled with policy-based approach: Tirana looks at practices and experiences from both the US and the EU.
- ITS system already in place and progressively impacting on traffic management.

**WEAKNESSES**

- Awareness of energy and climate-related risks and responses in terms of adaptation strategies still to be integrated across all MoT sectors and in decision making (but presence of Plans such as GCAP, AAP and T030 provide clear indications towards city resiliency).
- Absence of an integrated sustainable urban mobility strategy and presence of many ongoing policies and initiatives: the limited effect of Transport Demand Management strategies for both alleviate traffic congestion and regulate accessibility and parking oversaturation in areas between inner and outer ring roads.
- Uncompleted road trunks (i.e. outer ring) and junctions.
- Poor maintenance of some road infrastructures.
- Missing standards for streets, sidewalks and junctions.
- Risk of additional parking supply in inner urban area to be carefully assessed in terms of increased car flows vs objectives of car traffic limitations.
• Absence of mass rapid transit and of bus lines having a BHLS (buses with high level of services) configuration and segregated PT corridors. Road traffic congestion negatively influence PT service reliability and image.
• Poor quality and absence of interchange nodes with long-distance and regional/rural collective transport services (existing bus terminals).

**OPPORTUNITIES**

• Despite its rapid and informal urban expansion, Tirana preserved a considerably high population density compared to other European and SEE cities. While encompassing mostly single-family homes, also peri-urban suburbs have relatively high densities.
• Mild weather, moderate rains and flat topography highly favour cycling and walking in Tirana.
• The city still has a strong pedestrian culture and a substantial portion of households still do not own cars or limit their use to leisure purposes only. This culture and social groups, especially women and elderly people, have to be preserved and supported. It can be seen as a heritage of the city in its challenge towards sustainable urban mobility.
• Denser Tirana offer higher accessibility despite being congested. This is a result of requiring less distance to travel in order to reach the same number of amenities and services. It also implies that in terms of accessibility, the benefits of density and a higher proximity to amenities generally outweigh its disadvantages.
• The transformation of Skanderbeg Square into a landscaped public space of more than ten hectares exclusively for pedestrians has now gained a symbolic role for sustainable mobility thus positively influencing the perceptions and attitudes of citizens towards sustainable mobility patterns.

**TREATS**

• Role of SUMP vs other strategic Plans.
• Gentrification and changes in the functional land-use mix in central Tirana (also linked to real estate projects from private investors) might reject low income groups and exacerbate long distance commuting.
• Cars are still perceived as a strong status symbol and research on university students indicate pro-car attitudes and future intentions to purchase and drive in the future also for those groups more prone to sustainability behaviours.
• Limited financial resources for implementing SUMP policies.