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Second Five Years Review of the Albanian National Transport Plan (ANTP3)

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Final ANTP3 - PART II. SETTING FOR THE UPDATE OF ANTP3

TYPSA
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ACRONYM LIST - LISTA E SHKURTIMEVE

- **AADT - TMDV** Trafiku Mesatar Ditor Vjetor (Annual Average Daily Traffic)
- **ACAA - CAA** Autoriteti Shqiptar i Aviacionit Civil (Albanian Civil Aviation Authority or CAA)
- **ADF - FSHZH** Fondi Shqiptar i Zhvillimit (Albanian Development Fund)
- **ADR** Marreveshja Europiane per transportin e mallrave te rrezikshme me rruge (The European Agreement concerning the International Carriage of Dangerous Goods by Road)
- **ADT - TMD** Trafiku Mesatar Ditor (Average Daily Traffic)
- **ALBCONTROL** Agjencia Shqiptare per kontrollin e trafikut ajror (Albanian National Air Traffic Agency)
- **ANS - SHNA** Sherbimet e Lundrimit Ajror (Air Navigation Services)
- **ANTP1 - PKT1** Plani Kombëtar Shqiptar i Transportit 2005 (Albanian National Transport Plan 2005) nga Louis Berger SA.
- **ANTP2 - PKT2** Rishikimi i parë i Planit Kombëtar Shqiptar të Transportit 2010 (First five-year review of the Albanian National Transport Plan 2010) nga Louis Berger SA.
- **AR - HSH** Hekurudhat Shqiptare (Albanian Railways)
- **ARA - ARRSH** Autoriteti Shqiptar Rrugor (Albanian Road Authority)
- **ATC - MAT** Matja Automatike e Trafikut (Automatic Traffic Counter)
- **ATM - MTA** Menaxhimi i Trafikut Ajror (Air Traffic Management)
- **BoA - BSh** Banka e Shqipërisë (Bank of Albania)
- **BOT** Ndertim Operim Transferim (Build Operate Transfer)
- **CAP - PNV** Plani Ndreqës i Veprimeve (Corrective Action Plan)
- **DCM - VKM** Vendim i Këshillit të Ministrave (Decision of Council of Ministers)
- **DPA/PDA - APD** Autoriteti i Portit të Durrësit (Durres Port Authority)
- **EASA - AESA** Agjencia Evropiane e Sigurisë së Aviacionit (European Aviation Safety Agency)
- **EBRD - BERZH** Banka Evropiane për Rindërtim dhe Zhvillim (European Bank for Reconstruction and Development)
- **ECAA - ZPAE** Zona e Përbashkët e Aviacionit Europian (European Common Aviation Area)
- **ECD - DKE** Delegacioni i Komisionit Evropian (European Commission Delegation)
- **EIB - BEI** Banka Evropiane për Investimet (European Investment Bank)
- **ERA - AHE** Agjenca e Bashkimit Europian për Hekurudhat (European Union Agency for Railways)
- **EMS - ASDE** Agjencia e Sigurise Detare Europiane (European Maritime Safety Agency)
- **ERTMS - SEMTH** Sistemi Europian i Menaxhimit te Trafikut Hekurudhor (European Railway Traffic Management System)
- **EU - BE/KE** Bashkimi Evropian (European Union)
- **Eurocontrol - Eurokontroll** Organizata Evropiane për Kontrollin e Hapësirës Ajrore (European Airspace Control Organization)

- **Exchange rates - Kurset e Këmbimit**, referues:

  1 Euro = 140 ALL para (before) 2005-2018 = 125 ALL 2018

  1 USD = 100 ALL para (before) 2005-2018 = 108 ALL 2018
- **FDI - IHD** Investimet e Drejtpërdrejta të Huaja (Foreign Direct Investment)
- **FMP - PMF** Programi i Menaxhimit Financiar (Financial Management Programme)
- **GDP - PBB** Prodhimi i Brendshëm Bruto (Gross Domestic Product)
- **GIS - SIGj** Sistemi i Informacionit Gjeografik (Geographic Information System)
- **GMD - DPD** Drejtoria e Përgjithshme Detare (General Maritime Directorate)
- **HDM4** Program kompjuterik për analizimin e kushteve (të tanishme dhe të ardhshme) të rrugëve ose të një rrjeti rrugor (Highways Development and Management Model, version 4)
- **HSH - AR** Hekurudhat Shqiptare (Albanian Railways)
- **ICAO - ONAC** Organizata Ndërkombëtare e Aviacionit Civil (International Civil Aviation Organization)
- **ICZM** Menaxhimi i Integruar i Zonës Bregdetare (Integrated Coastal Zone Management)
- **IMF - FMN** Fondi Monetar Ndërkombëtar (International of Monetary Fund)
- **IMO - OND** Organizata Ndërkombëtare Detare (International Maritime Organization)
- **INSTAT** Instituti i Statistikave (Institute of Statistics)
- **IoT - IT** Instituti i Transportit (Institute of Transport)
- **IPA - INP** Instrument Ndihmës Para-Hyrjes (Instrument for Pre-Accession Assistance)
- **IPF - SPI** Sistemi i Përgatitjes së Infrastrukturës (Infrastructure Preparation Facility)
- **ITS - SIT** Sistemet Inteligjente te Transportit (Intelligent Transport System)
- **KPI - TKP** Treguesi Kyç i Performancës (Key Performance Indicators)
- **LRIT** Instrument per Gjurmimin ne Distanca te Largeta (Long Range Instrumental Tracking)
- **MA - AD** Administrata Detare (Maritime Administration)
- **MARD - MBZHR** Ministria e Bujqësisë dhe Zhvillimit Rural (Ministry of Agriculture, and Rural Development)
- **MFE - MFE** Ministria e Financave dhe Ekonomise (Ministry of Finance and Economy)
- **MIE - MIE** Ministria e Infrastruktures dhe Energjisë (Ministry of Infrastructure and Energy)
- **MIS - SIM** Sistemi i Menaxhimit të Informacionit (Management Information System)
- **MoI - MB** Ministria e Brendshme (Ministry of Interior Affairs)
- **MP** Master Plan
- **MTC - MMT** Matja Manuale të Trafikut (Manual Traffic Count)
- **MTM - MTE** Ministria e Turizmit dhe Mjedisit (Ministry of Environment and Tourism)
- **NIBAAI - OKIIA** Organi Kombetar per Investigimin e Incidenteve/Aksidenteve Ajrore (National Investigation Body of Air Accidents and Incidents)
- **NIC - KKI** Komiteti Kombetar i Investimeve (National Investment Committee)

- **NPEI - PKIE** Plani Kombëtar për Integrimin Europian (National Plan for European Integration)
- **NSPP - SKPP** Strategjia Kombetare per Projektet Prioritare (National Strategy of Priority Projects)
- **NTS - SKT** Strategjia Kombetare e Transportit (National Transport Strategy)
- **NSDI - SKZHI** Strategjia Kombetare per Zhvillim dhe Integrim (National Strategy for Integration and Development)
- **OD - NM** Matjet Nisje-Mbërritje ose N/M (Origin Destination)
- **PBRRMC – KMRrBRP** Kontratat e Mirëmbajtjes Rrugore Bazuar mbi Rezultatet dhe Performancën (Performance Base Result Road Maintenance Contract)
- **PPP** Partneritetin sektor Privat-sektor Publik (Public Private Partnership)
- **RAMS - SMPRR** Sistemi i Menaxhimit të Pasurive Rrugore (Road Asset Management System)
- **REBIS** Studimi për Infrastrukturën në rajonin e Ballkanit (The regional Balkans infrastructure study)
- **RFC** Korridoret Europiane Hekurudhore te Mallrave (Rail Freight Corridors)
- **RNE** Rrjeti Europian hekurudhor (RailNet Europe)
- **SAA - MSA** Marrëveshja për Stabilizim Asocim (Stabilisation and Association Agreement)
- **SEA - VSM** Vleresimi Strategjik Mjedisor (Strategic Environment Assessment)
- **SC - KD** Komiteti Drejtues (Steering Committee)
- **SEETO - VTEJL** Vëzhguesi i Transportit për Evropën Jug-Lindore (South East Europe Transport Observatory
- **SES** Iniciativa per Qiellin e Vetem Europian (Single European Sky initiative)
- **SSPP - PPPS** Paketa e Projekteve Prioritare te Sektorit (Single Sector Project Pipeline)
- **TA - AT** Asistenca Teknike (Technical Assistance)
- **TAZ - ZAT** Zona e Analizës së Transportit (Transport Analysis Zone)
- **TBD** Për tu percaktuar (To be determined)
- **TEN-T** Rrjeti Trans-Europian i Transportit (The Trans-European Transport Networks)
- **TIA** Aeroporti Ndërkombëtar i Tiranës (Tirana International Airport)
- **ToR - TeR** Termat e Referncës (Terms of Reference)
- **USOAP** Programi Universal per auditin e mbikqyrjes se sigurise ne aviacion (Universal Safety Oversight Audit Programme)
- **VTIMS - SIMTA** Sistemi për Informacionin dhe Monitorimin e Trafikut të Anijeve (Vessels Traffic Information and Monitoring System)
- **WB6 - BP6** 6 Vendet e Ballkanit Perëndimor (West Balkan 6 Countries)
- **WB/IBRD - BB** Banka Botërore per Rindërtim dhe Zhvillim (World Bank for Reconstruction and Development)
- **WBIF - KIBP** Kuadri i Investimeve per Ballkanin Perendimor (The Western Balkans Investment Framework)

1. INTRODUCTION

1.1. GENERAL OBJECTIVE

This document, second part of the "Second Five Years Review of the Albanian National Transport Plan (ANTP3)" contains the preliminary results corresponding to transport data collection, development of database and analysis and forecast of economic and traffic development.

This report presents the progress of the work related to the configuration of the National Transport Plan. In order to do so, the Consultant hereby describes these activities:

- Socio-economic overview of the Country and identification of the freight and commodities flows and productions;
- Traffic Survey Campaign: defining the past works undertaken in the Country, the methodology used and results of the 2018 campaign and analyzing its results. The findings obtained have been aggregated and used in subsequent transport analysis;
- Transport Model: the updated model is used in both passenger and goods simulations, so the construction thereof is undertaken keeping in mind the multimodality;
- Passenger traffic analysis: a four stages transportation model has been developed, with further assignments and forecast to identify the network weaknesses and points of improvement;
- Freight traffic analysis: a similar process to the passenger section has been done;
- Legal framework;
- Institutional setting.

2. SOCIO-ECONOMIC SITUATION IN ALBANIA

2.1. TERRITORIAL AND ADMINISTATIVE REFORM

2.1.1. Introduction

In the last decades the Governments of Albania had undertaken various steps in Territorial Reform and lately has realized the Administrative Reform for the first level of government. The reform aimed at tackling the inefficient and highly fragmented territorial and administrative division of the country. Furthermore, the reform addressed also the asymmetrical economic development of the country, which during the last two decades attracted a massive demographic movement towards the most developed west lowlands and the main urban centres, which at the same time saw a depopulation of many small administrative units.

The main topics of the reform's discussion were creating larger local units that provide public services in a more efficient way, and the usage of the financial resources in order to respond better to the needs of the citizens. Also, there are other important issues which the reform aimed to address since its initial stages, such as:

- High fragmentation of the country - 20% of Albania's population live in 232 LGUs (Local Government Units) or over 75% of the total LGUs have less than 5,000 inhabitants. This results at very expensive cost of providing basic services to the citizens;
- Limited human capacities in small local units, which resulted in the inability to exercise local functions;
- The reduction of fiscal autonomy and the lack of financial coverage for joint functions;
- The unclear role of the Regions as coordinator institutions to help LGUs exercise local functions;
- The need for an internal regional development policy that was in compliance with the criteria of EU integration and the need for a multilevel governance, including the regional level.

2.1.2. Description of the territorial and administrative reform

The territorial-administrative division with 61 municipalities is based on the methodology of functional areas. To create the 61 new municipalities, existing municipalities and communes were joined and formed one functional area referring to the technical criteria adopted by the Special Parliamentary Commission.

Currently, the Local Government in Albania is organized in two levels. The Municipalities are the basic units of local government and they represent the first tier. The Regions are the second level of local government. The Municipalities are responsible for providing a number of public services and goods. The role of the Region is focused on developing and implementing regional policies and on harmonizing them with the state policies and on the functions delegated by other local government units and central government. The Constitution of Albania defines 12 Regions throughout the country. The new municipalities are functional since 2015, although still undergoing internal administrative and financial consolidation.

A new major reform undertaken by the government on Regional development has been initiated, but not finalized. This refers mainly to regions within Albania. Regional Development aims at supporting regions in overcoming structural deficiencies and in developing their comparative advantages to be able to reduce poverty and improve the living conditions of people. The finalization of the territorial and administrative reform shed light to the imminent need of developing also a socio-economic cohesion (regional development) policy, also it is expected to influence the transport issues in a way or another.

Considering the current situation on regional development in Albania, disparities manifest themselves in various ways and magnitudes – be it on a social, economic, demographic or environmental level:

- Severe differences in the level of socioeconomic development between Tirana and the rest of territories (Regions);
- Pronounced differences between urban and rural areas, specifically in terms of local finances, environmental pollution and topography and territorial barriers;
- Moderate differences among Regions (excluding Tirana);
- Relatively low disparities among the four Regional Management Areas.

2.1.3. Impact on transport infrastructures

Municipalities are sovereign in their decision-making, despite the fact that maintenance costs are not yet calculated. On the other side is a big question about accessibilities of remotes areas. Regarding accessibility and roads: All road infrastructure, 18,000 km excluding the national road network of 4,072 km, and related services are already owned and operated under the administration of local government. In order to maintain and improve them, for offering private and public transport solutions, a new service cost has been foreseen for inhabitants of that areas as well.

City Councils or municipalities should plan the relevant funds, from their own resources, to resolve the transport related issues. Almost 45% of the rural road inventory is transferred to local government under the regional management.

Most of the local roads are rural. They connect villages with each other but they are in poor conditions sometimes gravel or unpaved. Almost all municipalities have insufficient financial capacities to build or pave roads. Therefore, most municipalities fail to provide proper investments for these roads. Only large municipalities can plan annual funds for the repair and maintenance of roads within their territorial administrative boundaries. However, these funds are never enough to offer all the necessary maintenance services for the routes under their administration. The main investor in the maintenance and construction of local roads remains still the Government, which finances the construction of new rural roads or the asphalting of existing roads through three financial sources:

- Albanian Road Authority, which intervenes in those segments that connect local territories with the main national road;
- Albanian Development Fund, which has been practically the main investor in construction of rural roads;
- Through competitive grants from the Regional Development Fund (state budget) which finance projects for reconstruction of roads, among others for local government.

2.1.4. Influence on the transport sector

One of the aspects related to the implementation of the Territorial and Administrative Reform, was deepening the urban planning reform. The reform starts on 2008 with the draft of Planning Law and then consensual approval in parliament, ready for implementation on September 2009. The law was accompanied with the creation of National Territorial Planning Agency on 2010. The Government has approved the first General National Plan DCM 881 dt 14.12.2016, as well as the Cross-Sectorial Plan for the Coast Decision of the National Territory Council 02 dt 14.06.2016 and the Economic Zone of Tirana-Durres Decision of the National Territory Council 03 dt 14.06.2016. These were the first planning instruments ever drafted at the national scale.

At the end of this process the Government took the initiative to support the New Municipality Units through the Ministry of Urban Development to draft their Local General Plans. Those planning instruments were covering the urban planning on the territorial boundaries of the new municipalities by putting the focus at the transport

modes for the 61 new units. Some of the municipalities started the implementation of the local plans during 2018.

In order to guarantee a better transport connection at the local and regional level, the consultancy companies that were chosen, under procurement procedures, worked with the staff of the Municipalities to draft the respective General Local Plan. These consultancy firms were working at the same time for three or four neighbour municipalities. This regional perspective during the process of drafting the General Local Plans for each municipality helped a lot to raise the level of infrastructure and economical solutions at a regional scale and provide road infrastructure planning while having in focus both local and regional transport network. Today, 45 Municipalities have approved their General Local Plans and the 15 remaining Municipalities are under process of drafting and approval. Such planning instruments are very important tools, as they will guarantee sustainable development for the future, based on a broader analytical diagnosis, also for the transport network, in each local territory.

Almost all municipalities have insufficient financial capacities to build or pave roads. Therefore, most municipalities fail to provide proper investments for these roads. Only large municipalities can plan annual funds for the repair and maintenance of roads within their territorial administrative boundaries. However, these funds are never enough to offer all the necessary maintenance services for the roads under their administration.

2.1.5. Future perspectives

The approximation based on the territorial and transport systems implies the acknowledgement and organization of the territory through networks, corridors, spaces, areas, nodes of communication, interlinks of dependency and communication flows. In order to identify the basics of territorial development in Albania, it is necessary to understand how the territorial structure of Albania has changed in the last 10-15 years and how this structure is likely to be developed in the next 15 years.

A valuable contribution to this identification has been given by INSTAT with the processing of data from the Census 2011, as well as the publications "A new urban rural classification of Albanian population", "Commuting for work purposes", "Typology of communes and municipalities", May 2014. On 31 July 2014 the Parliament of Albania approved the Law 115/2014 "On administrative - territorial division of the local government units in the Republic of Albania".

As for the General National Plan and other planning instruments drafted after the implementation of the Territorial and Administrative Reform, the administrative territorial structure is of special relevance to the territorial organization of the country, because this structure is associated with the establishment of key functions regarding healthcare, educational, social, transport infrastructure, economic, administrative and other related services, which are closely linked to the enhancement of citizens' quality of life, smart urban development (efficient, cohesive) and mitigation of regional disparities.

The consolidation of the newly established 61 municipalities resulting from the administrative and territorial reform is an immediate and pressing priority to be addressed for ensuring a well-functioning local government and increasing service delivery, service expansion to rural and suburban areas, as well as better transport network that will facilitate the circulation of people and goods.

2.2. ECONOMIC OVERVIEW

2.2.1. Summary

In the past decades Albania reoriented its economy from a centrally planned to a market-oriented, transitioning from one of the most economically weak nations in Europe in the early 1990s to middle-income status nowadays, lowering the poverty and financial weaknesses indicators.

Albania has experienced a slight deceleration in the GDP growth, from 5% in the previous decade to the actual 3%, although the indicators show a year-over-year growth since 2014 (see Table II - 2).

According to 2016 informs (semi-final data), the highest value in GDP was in prefecture Tirana with around 596.4 billion ALL or 40.4 % of total GDP. The lowest value of GDP was in prefecture Kukes with 25.25 billion ALL or 1.7 % of total GDP. This gap between prefectures is becoming bigger, with the main cities gradually attracting more enterprises and resources.

According to the IMF, projections of growth are expected to increase in the coming years, maintaining an average 4% GDP growth until 2020, compared to the 2.2% average of the period 2010-2016.

As the economy continues to accelerate and labour markets improve, further gains in poverty reduction are expected. Continued fiscal consolidation and other reform efforts are expected to gradually reduce the debt-to-GDP ratio below 60% of GDP by 2021.

While the Albanian economy is growing, structural measures must be implemented to ensure the country's equitable growth, being able to enhance productivity and competitiveness in the economy, create more jobs, and improve governance and public service delivery. This Plan will focus its proposals on promoting regional connectivity and universal access to basic resources, after the following analysis of the socioeconomic situation of Albania.

2.2.2. Economic Growth

Albania was affected by the consequences of the global financial crisis and its impact has highlighted the weaknesses of the post-communist economic model. Increasing figures of this development model concealed speculative markets, negative trade deficit, dependency on remittances, employment depending on foreign investments and businesses in Albania, lack of a clear and competitive economic profile, etc. Decrease in remittances due to the impact of the crisis in the neighbouring countries and a large number of returned migrants have eliminated the balance to high import figures and increased unemployment.

In order to accelerate the pace of equitable growth, Albania needs to implement structural reforms that will raise productivity and competitiveness in the economy, create more jobs, and improve governance and public service delivery.

Significant progress propelled by the ongoing reforms has created the conditions for rebounding business confidence and domestic demand, including early signs of increased investment and an export-led recovery. Maintaining the reform momentum and implementation is critical for Albania's continued economic growth and its aspirations for European Union integration.

According to INSTAT reports, in 2016 Albania experienced an increase of 3.35% of the real GDP at constant prices. This growth implies an acceleration of the economy compared to previous years, where the GDP had experienced a slight deceleration.

Table II - 1. GDP – at current and constant prices

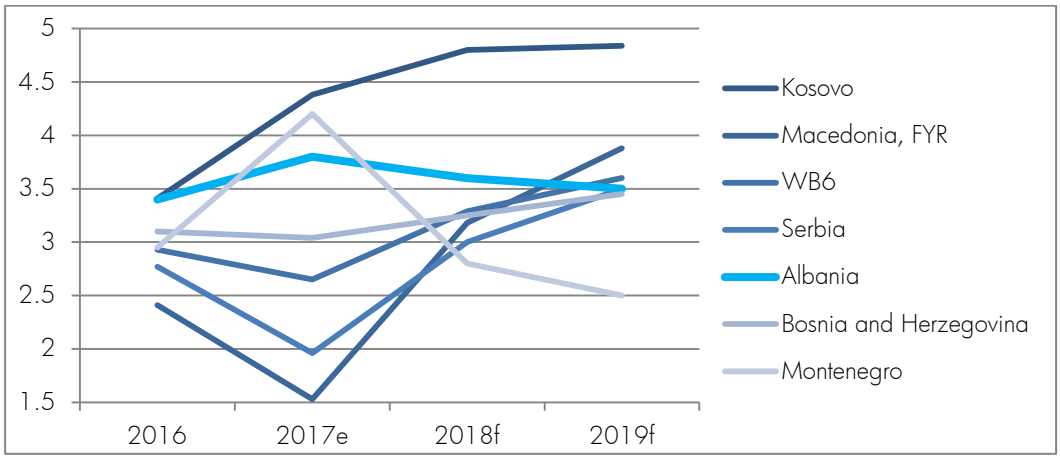
Year	Output (in million ALL)	Intermediate Consumption (in million ALL)	Gross Value Added (in million ALL)	Net taxes on products (in million ALL)	Gross domestic product at current prices (in million ALL)	Annual real growth of GDP at constant prices compared to previous year, in %	Gross Domestic Product per capita		
	1	2	3=1-2	4	5=3+4		Thousands ALL	EURO	USD
2010	2,039,101	961,616	1,077,485	162,160	1,239,645	3.71	426	3,088	4,094
2011	2,190,133	1,059,012	1,131,121	169,503	1,300,624	2.55	448	3,191	4,438
2012	2,191,310	1,036,563	1,154,747	178,064	1,332,811	1.42	460	3,305	4,248
2013	2,246,280	1,068,582	1,177,698	172,354	1,350,053	1.00	466	3,323	4,411
2014	2,252,545	1,034,701	1,217,843	177,461	1,395,305	1.77	483	3,450	4,579
2015	2,334,762	1,075,036	1,259,726	174,580	1,434,307	2.22	498	3,563	3,953
2016	2,402,493	1,108,519	1,293,975	181,276	1,475,251	3.35	513	3,734	4,132
2017					1,552,983	3.84	540	3,780	4,545
2018					1,653,508	3.99	575	4,025	5,261

Source: Instat

(*)Information from 2017 and 2018 could not be completely gathered, so the table only shows those cells where official data were obtained.

Countries in the Western Balkans are seeing an increase in jobs, as growth is picking up throughout the region. According to the World Bank economic forecast (Figure II - 1), regional growth is expected to reach 2.6 percent in 2017, resulting in the creation of 230,000 jobs through June 2017. Albania is estimated to grow 3.8 percent in 2017, before growing 3.6 percent in 2018 and 3.5 percent in 2019

Figure II - 1. Real GDP growth forecasts, percentage



Source: World Bank. e= estimated; f=forecasted

The estimation of GDP growth rates differs between the World Bank and IMF, with forecasts of the latter slightly larger, shown below:

Table II - 2. IMF forecast of GDP through 2016-midterm

	Units	2014	2015	2016	2017	2018	2019	2020
GDP	mlln. ALL	1,395,305	1,434,307	1,475,251	1,531,311	1,586,438	1,645,136	1,709,296
Real GDP Growth	Annual percent	1.77	2.22	3.35	3.8	3.6	3.7	3.9

Source: IMF/INSTAT

The inflation has maintained moderate stability, as reflected in Table II - 3.

Table II - 3. Main Macroeconomic Indicators - %

	2013	2014	2015	2016	2017 proj.
GDP growth	1.0	1.77	2.2	3.35	3.7
Inflation (average)	1.9	1.6	1.9	1.3	2.1
Government balance/GDP	-5.2	-5.5	-4.1	-1.8	-1.2
Current account balance/GDP	-9.3	-10.8	-8.6	-7.6	-9.2
Net FDI/GDP [neg. sign = inflows]	-9.5	-8.1	-8.0	-8.7	-9.3
External debt/GDP	60.5	56.1	63.3	62.0	n.a.
Gross reserves/GDP	21.6	20.4	27.6	26.2	n.a.
Credit to private sector/GDP	39.8	39.4	37.3	33.5	n.a.

Source: EBRD

2.2.3. Structure of the Economy

The transition from a centrally planned to a market-oriented economy, together with international aid and other strategic assistance over the past decades, has helped Albanian economy reach economic progress and modernization. The country's economic transformation, initiated in the 1990s, continues to build on its opportunities, moving away from agriculture, mineral extraction and traditional industry sectors.

However, the global financial crisis unveiled the vulnerabilities of its growth model and highlighted the need to implement even more structural reforms that will raise productivity and competitiveness in the economy, focusing on helping those with less access to economic opportunities to contribute to and benefit from economic growth.

Build up on regional connectivity and access to regional and global markets, along with export and market diversification, will also help to promote faster growth.

2.2.3.1. By Sectors

Services represent the biggest sector of Albanian economy, but with decreases compared to the previous decade. It is followed by *Industry and Construction* (21.1%) and *Agriculture, hunting and forestry* (19.9%).

Table II - 4. Structure of GDP by economic activities between 2011 and 2016 (%)

Economic activities	2011	2012	2013	2014	2015	2016
Agriculture, hunting and forestry	18.23	18.77	19.57	19.99	19.8	19.9
Mining and quarrying industry; Manufacturing; Electricity & Gas	13.03	13.36	12.76	12.9	12.9	12.2
Industry and Construction	24.48	22.92	23.06	21.51	21.8	21.1
Service	44.26	44.95	44.61	45.78	46.3	46.7

Source: Instat
2016 Semifinal data*

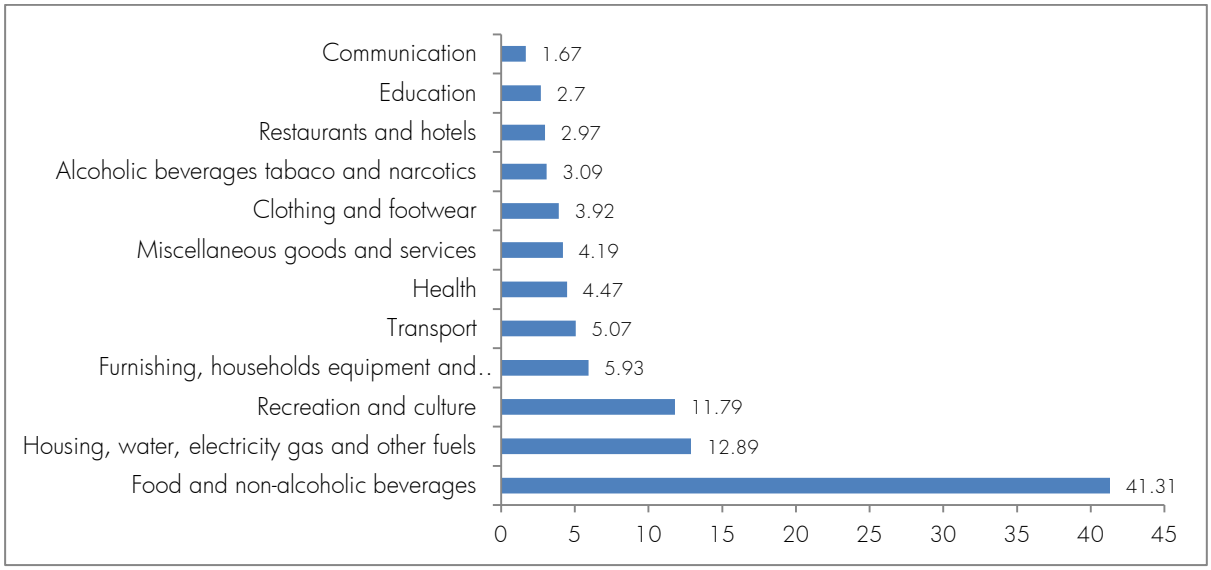
Table II - 5. Share of GVA by branches and by Qarks for year 2016

Sector	ALBANIA	Berat	Diber	Durres	Elbasan	Kukes	Lezha	Shkoder	Tirana	Fier	Gjirokaster	Korça	Vlora
Agriculture, forestry and fishing	100	8.6	6.2	7.7	12.6	3.2	4.9	7.4	7.6	21.5	3.3	10.5	6.6
Mining and quarrying; manufactured products; electricity, gas, water and waste management	100	3.6	5.8	12.6	7.3	1.9	2.2	6.5	33.9	13.5	1.9	3.8	7.0
Construction	100	3.0	1.4	11.2	4.6	0.8	5.7	4.5	49.5	7.1	1.9	4.2	6.0
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	100	2.2	1.4	13.5	5.0	0.7	2.8	4.4	47.8	8.1	2.7	5.1	6.3
Information and communication	100	2.3	1.7	5.2	4.2	1.4	1.8	4.9	67.0	3.3	2.1	3.4	2.8
Financial and insurance activities	100	1.9	1.8	5.6	4.9	1.3	3.5	4.1	54.9	7.9	3.0	5.4	5.6
Real estate activities	100	1.9	1.5	13.9	5.5	1.0	3.1	5.1	47.8	6.9	1.6	4.3	7.4
Professional. scientific and technical activities; administrative and support service activities	100	0.9	0.5	7.8	2.0	0.6	1.1	2.8	75.0	4.7	0.7	1.5	2.4
Public administration an defense; compulsory social security; education; human health and social work activities	100	3.2	3.2	6.4	6.6	2.3	3.3	5.6	50.2	6.1	2.6	5.5	5.1
Arts. Entertainment and recreation. repair of household goods and other services	100	1.8	0.8	5.9	3.8	1.2	2.1	3.6	65.8	3.5	1.7	6.0	3.9
GVA at basic prices	100	3.9	3.3	9.8	7.0	1.7	3.4	5.4	40.4	10.9	2.4	5.8	5.9

Source: Instat

The graph below gives the structure of the household's final consumption expenditure by main groups, for 2015. It is noted that the group *Food and non-alcoholic beverages* has the highest share among the other groups and *Communication* has the lowest one. In a more general perspective, it is noted that expenditures for services make up 41.56 %, expenditures on food products 41.31 % and expenditures on non-food products 17.13 %.

Figure II - 2. The structure of household final consumption expenditure in %, year 2015



Source: Statistical Yearbook, 2017

2.2.3.2. By Regions

Social and economic territorial disparities are still notable in Albania. Institutions and society have attempted to address them through sectorial policies, but this vertical approach, where sectors do not equally address every individual, has increased inequalities. This trend is also European, and for the last 25 years Europe has been trying to integrate in the development and policies the horizontal approach, where the territorial development serves as the source and basis upon which sectors compete.

The territorial dimension has not yet been integrated into sectorial policies in Albania, so a previous socioeconomic analysis has been held in order to indentify the principal demanding areas and tasks, in order to guarantee stability and territorial, social and economic cohesion.

Table II - 6. Structure of GVA by Regions between 2011 and 2016 (in mlln. ALL)

Region	2011	2012	2013	2014	2015	2016
Berat	45,682	42,472	43,760	45,976	48,034	50,909
Diber	32,311	36,759	37,161	38,431	41,148	42,624
Durres	108,297	110,082	112,812	112,723	123,188	127,350
Elbasan	84,744	83,040	88,627	90,211	88,004	90,146
Fier	132,415	148,034	156,621	164,753	148,814	141,165
Gjirokaster	29,122	31,316	30,723	31,656	30,133	30,643
Korça	66,009	67,405	69,028	70,053	70,988	75,009
Kukes	26,063	25,301	26,873	23,719	22,843	22,148
Lezha	35,091	37,764	36,325	40,731	41,730	44,201
Shkoder	68,509	66,855	65,387	64,215	67,947	70,331
Tirana	427,245	434,305	439,828	463,830	505,658	523,136
Vlora	75,633	71,413	70,552	71,544	71,240	76,314
ALBANIA	1,131,121	1,154,747	1,177,698	1,217,843	1,259,726	1,293,975

Source: Instat
2016 Semifinal data*

The highest contribution to the real growth rate is the Prefecture Tirana, with increasingly notoriety every year, reaching 40% of the national GDP in 2016. As shown in the Figure II - 3, Tirana is followed by Durres and Fier Prefectures.

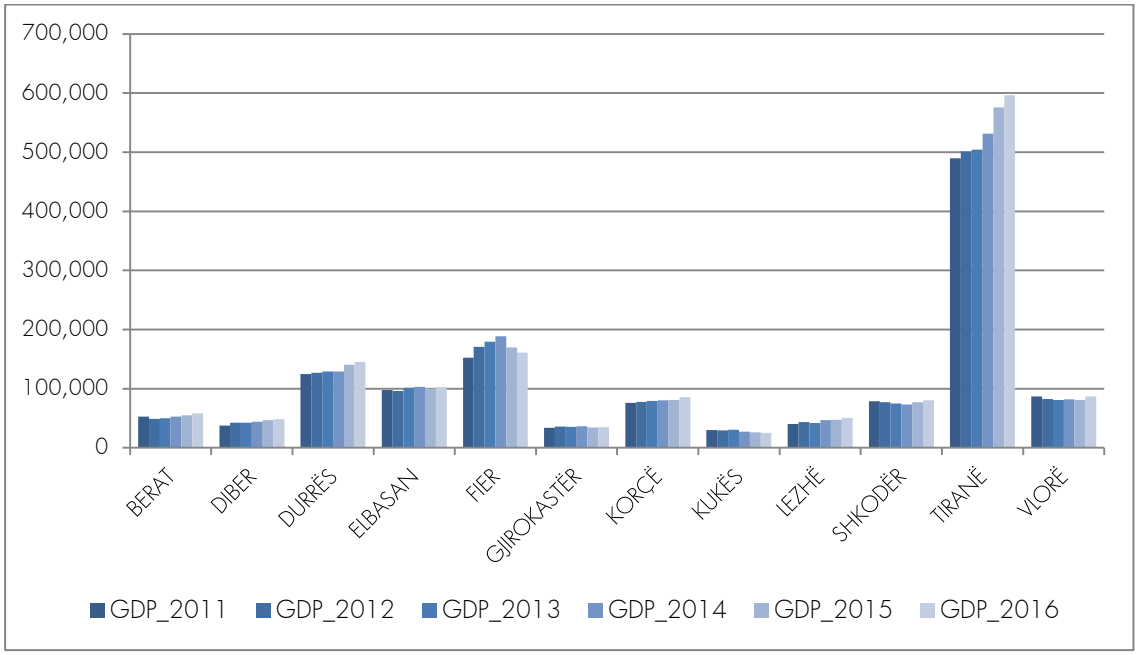
Table II - 7. Structure of GDP by Regions between 2011 and 2016 (in mlln. ALL)

Region	2011	2012	2013	2014	2015	2016
Berat	52,604	49,021	50,164	52,676	54,691	58,041
Diber	37,437	42,428	42,600	44,031	46,850	48,595
Durres	124,785	127,057	129,322	129,149	140,260	145,190
Elbasan	97,784	95,845	101,598	103,357	100,200	102,775
Fier	152,294	170,861	179,542	188,760	169,437	160,941
Gjirokaster	33,557	36,145	35,219	36,269	34,309	34,936
Korça	76,129	77,799	79,130	80,261	80,826	85,518
Kukes	30,033	29,202	30,806	27,176	26,008	25,250
Lezha	40,476	43,587	41,642	46,666	47,513	50,393
Shkoder	78,860	77,164	74,956	73,573	77,364	80,184
Tirana	489,632	501,276	504,196	531,419	575,735	596,423
Vlora	87,032	82,425	80,877	81,970	81,112	87,005
ALBANIA	1,300,623	1.300.624	1.332.811	1.350.053	1.395.305	1,475,251

Source: Instat
2016 Semifinal data*

The upward trend of GDP at the national level is reflected in almost all regions, although growth is concentrated, exponentially, in the Prefecture of Tirana. The decreases take place mainly in Fier, and more slightly in Gjirokaster and Kukes.

Figure II - 3. GDP by Regions (in mlln. ALL)



Source: Instat

The main economic indicators continue showing how Tirana predominate in every field, although the GDP per capita shows bigger differences in the poorest Regions, since its agricultural economy and population levels produce deeper gaps.

Table II - 8. Main Economic Indicators, Year 2015 and 2016

Region	GDP Current price mlln ALL	Share of AL %	Contribution to real Growth %	GDP per capita (thousand ALL)	GDP per Capita Index (AL = 100) %	2016 GDP per Capita Index (AL = 100) %
Berat	54,349	3.8	0.07	397	80.1	84.6
Diber	47,170	3.3	0.36	363	73.2	74.4
Durres	138,616	9.7	0.76	497	100.2	100.2
Elbasan	101,502	7.1	-0.21	351	70.8	70.1
Fier	168,641	11.8	-0.81	550	111.0	103.3
Gjirokaster	34,569	2.4	-0.15	503	101.4	101.7
Korça	81,504	5.7	0.06	372	75.2	77.2
Kukes	26,092	1.8	-0.11	319	64.3	61.2
Lezha	47,328	3.3	0.03	361	72.9	75.8
Shkoder	77,428	5.4	0.18	366	73.8	74.8
Tirana	569,517	39.9	2.10	679	137.0	136.4
Vlora	81,084	5.7	-0.05	431	86.0	90.0
ALBANIA	1,427,799	100	2.23	496	100	100

Source: Instat

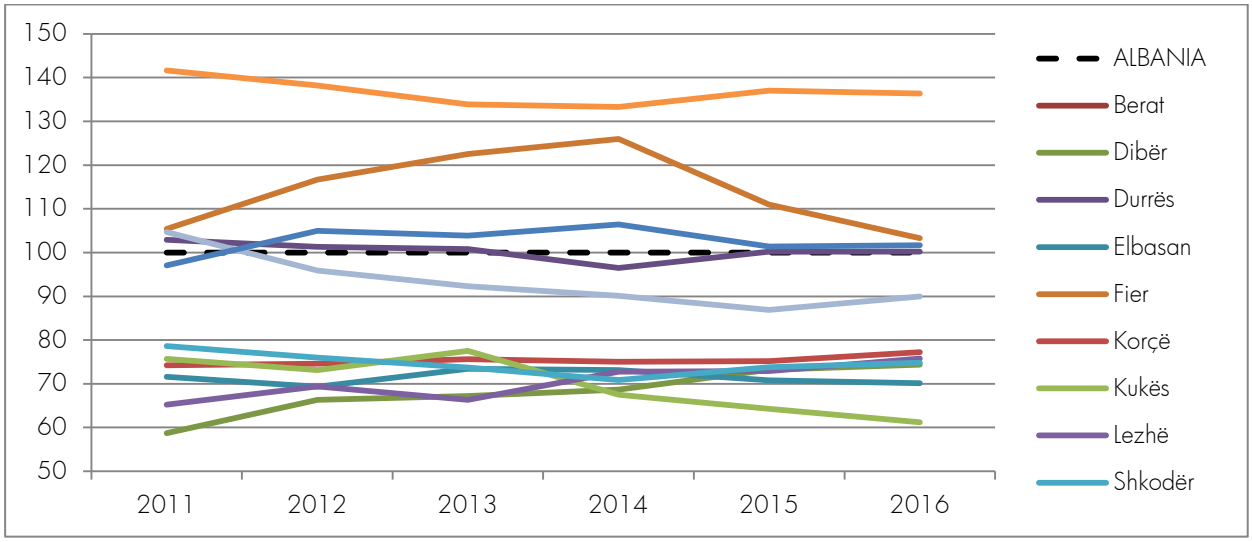
Undoubtedly, the GDP per capita is one of the main indicators correlated with the territorial cohesion and socioeconomic equal development. Breaking down this statistic, there is a need for further policies directed towards improving the wealth distribution among Prefectures.

Table II - 9. Gross Domestic Product per Capita

Region	2011		2012		2013		2014		2015		2016	
	GDP per capita	%	GDP per capita	%	GDP per capita	%	GDP per capita	%	GDP per capita	%	GDP per capita	%
Berat	354,944	79	337,380	73	352,061	85	376,954	78	396,984	80	436,071	85
Diber	262,575	59	304,493	66	313,173	74	331,821	69	362,688	73	379,639	74
Durres	460,687	103	465,430	101	470,185	100	466,201	97	496,660	100	513,025	100
Elbasan	320,704	72	318,496	69	342,117	70	352,991	73	351,050	71	359,118	70
Fier	471,751	105	536,127	117	571,017	103	608,644	126	550,106	111	528,416	103
Gjirokaster	434,521	97	482,547	105	484,715	102	513,990	106	502,540	101	523,286	102
Korça	332,166	74	342,911	75	352,738	77	362,167	75	372,488	75	395,029	77
Kukes	339,052	76	335,961	73	361,596	61	325,978	68	318,730	64	312,945	61
Lezha	291,698	65	318,753	69	309,084	76	351,431	73	361,160	73	389,899	76
Shkoder	351,928	79	349,031	76	343,814	75	342,496	71	365,815	74	384,769	75
Tirana	634,047	142	634,860	138	624,589	136	643,997	133	679,154	137	697,714	136
Vlora	468,554	105	440,693	96	430,264	90	435,137	90	430,800	87	461,723	90
ALBANIA	447,689	100	459,526	100	466,325	100	482,954	100	495,643	100	513,025	100

Source: Instat

Figure II - 4. GDP per capita - % compared to Albanian average GDP (2011-2016)



Source: Instat

2.2.4. Population

Albania has experienced a decrease in population since 2001, but in the last decade the diminution rate has dropped. This population decrease has been impacted more from net migration rather than the population natural increase. While the first component, net migration, continues to be negative, the second one, natural increase, has been decreased during the given period.

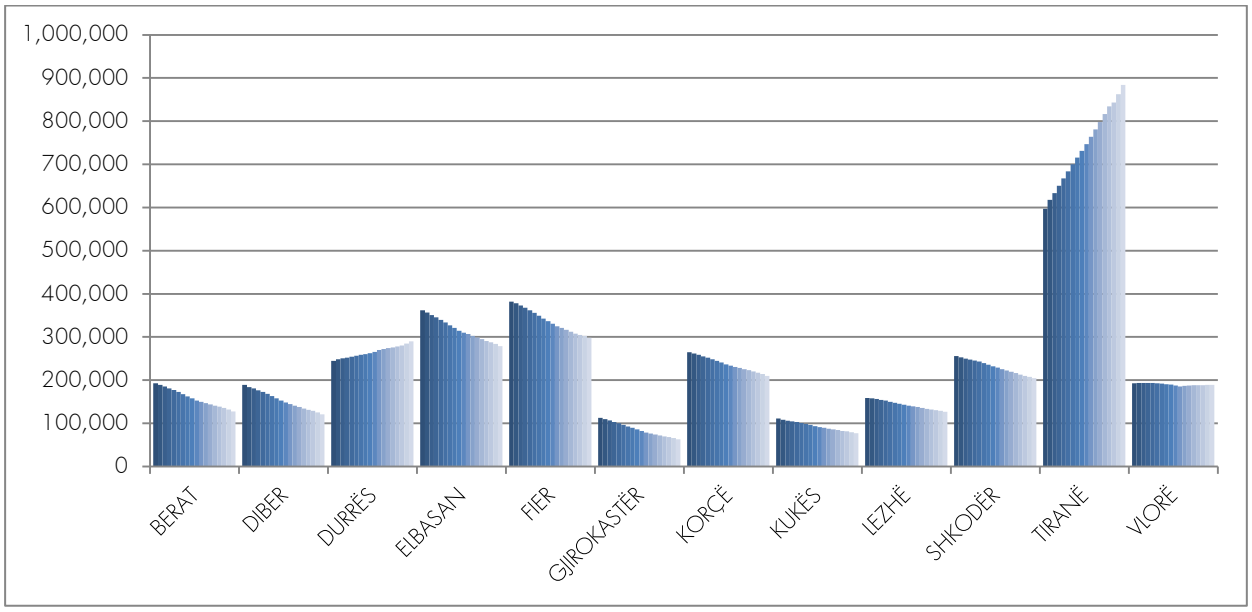
Table II - 10. Evolution of population in Albania, by Regions.

Region	2011	2012	2013	2014	2015	2016	2017	2018
Berat	149,671	146,736	143,856	141,114	138,365	135,441	131,942	127,431
Diber	144,198	140,956	137,722	134,332	131,054	129,056	125,579	120,978
Durres	269,784	271,947	274,029	276,058	277,989	280,205	284,823	289,628
Elbasan	306,941	302,863	298,995	294,938	290,666	287,606	283,822	278,547
Fier	324,865	320,789	316,599	312,248	308,014	305,108	302,507	298,144
Gjirokaster	78,402	76,054	73,753	71,567	69,557	68,020	65,939	62,952
Korça	230,261	228,118	225,634	223,029	220,196	217,422	214,321	210,178
Kukes	89,397	87,762	86,082	84,306	82,428	81,294	79,559	77,394
Lezha	139,735	137,782	135,703	133,748	131,829	130,258	129,019	126,800
Shkoder	225,549	222,611	219,548	216,477	213,148	210,168	207,924	204,994
Tirana	763,561	780,905	798,263	816,222	834,151	842,981	862,361	883,996
Vlora	185,004	186,485	187,586	188,355	188,399	188,033	188,795	189,282
ALBANIA	2,907,368	2,903,008	2,897,770	2,892,394	2,885,796	2,875,592	2,876,591	2,870,324

Source: Instat

This negative tendency cannot be generalized to every prefecture, since there have also been internal migration movements, directed from rural areas to the bigger and urban cities, such as Tirana or Durres. Vlora has experienced some fluctuations since 2012, but remains stable.

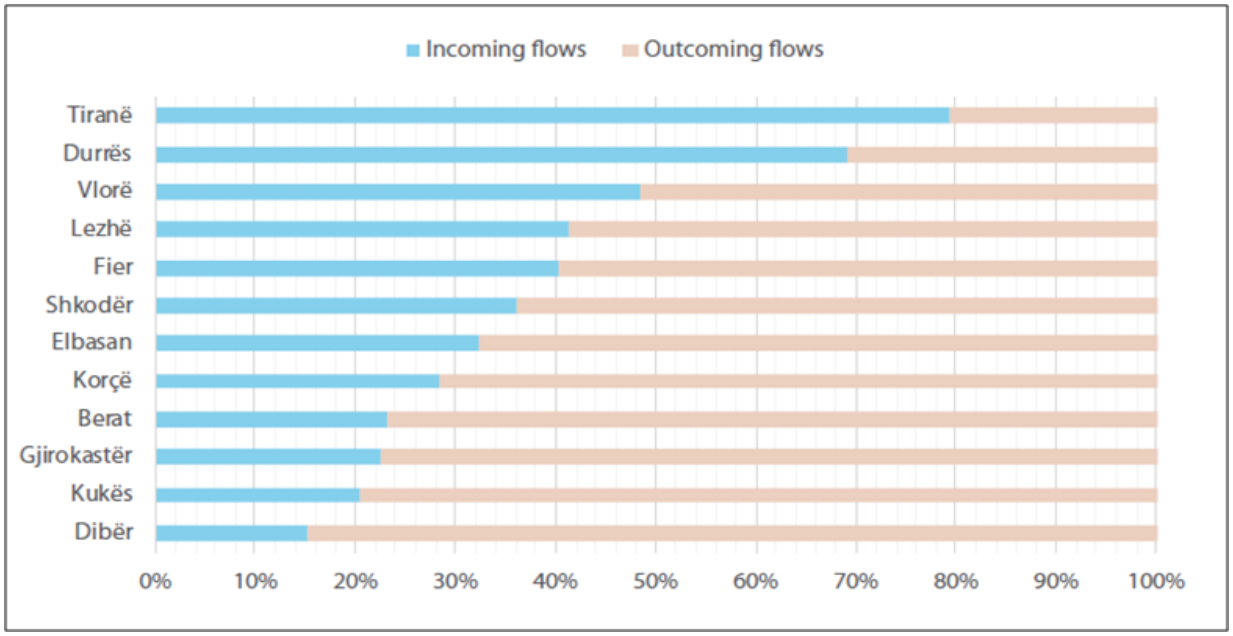
Figure II - 5. Population in Albania (2001-2018)



Source: Instat

The internal movements can be easier analyzed with the following chart, taken from the "*Regional Statistical Yearbook 2018*" that shows the flows for the year 2017. The tendency displayed is typical from the emerging countries, clustering population in the big urban nucleus.

Figure II - 6. Internal movements of population, 2017



Source: Regional Statistical Yearbook, 2018

The Albanian population is immersed in an ageing process, caused by high emigration flows involving a relative young population on one hand and decreasing of fertility and increasing in life expectancy on the other hand. The following table shows the distribution of Population by Prefectures, divided by sex and broad age groups.

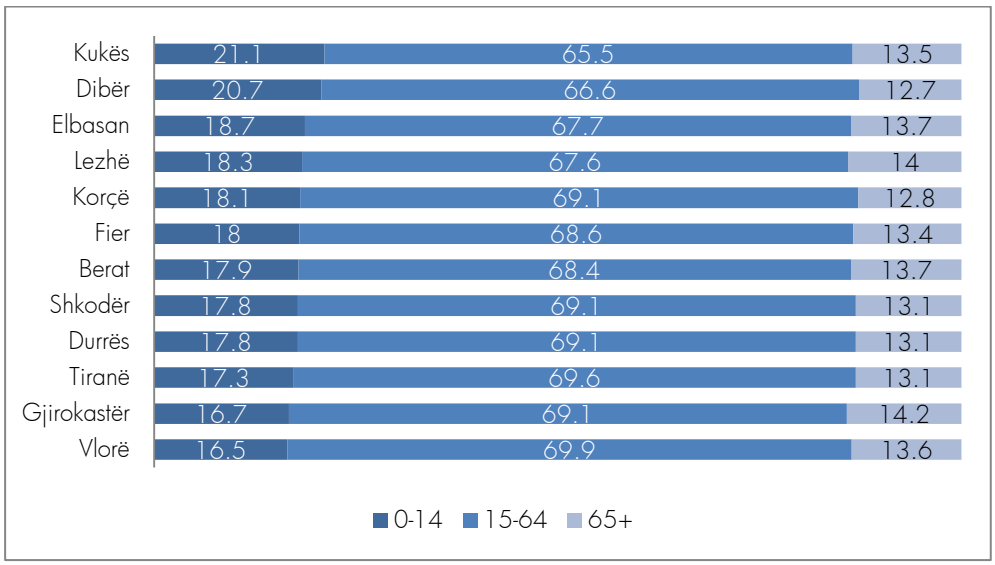
Table II - 11. Population by Region, broad age groups and sex, 2016

Region	Total			Male			Female		
	0-14	15-64	65+	0-14	15-64	65+	0-14	15-64	65+
Berat	24,571	91,534	17,588	12,826	47,008	8,596	11,745	44,526	8,992
Diber	26,476	85,340	15,503	13,944	44,847	7,735	12,532	40,493	7,768
Durres	51,272	193,551	37,693	26,716	99,442	18,346	24,556	94,109	19,347
Elbasan	54,450	193,689	37,577	28,265	98,984	18,298	26,185	94,705	19,279
Fier	56,056	208,286	39,467	29,378	107,859	19,342	26,678	100,427	20,125
Gjirokaster	11,538	46,407	9,036	6,059	23,488	4,358	5,479	22,919	4,678
Korça	40,134	149,018	26,721	21,048	75,422	12,939	19,086	73,596	13,782
Kukes	16,990	53,040	10,398	8,935	27,279	5,087	8,055	25,761	5,311
Lezha	24,276	87,773	17,591	12,643	45,063	8,454	11,633	42,710	9,137
Shkoder	38,386	144,081	26,580	19,849	71,708	12,641	18,537	72,373	13,939
Tirana	150,531	592,091	110,049	78,023	293,181	52,429	72,508	298,910	57,620
Vlora	32,183	131,501	24,731	16,889	66,936	11,988	15,294	64,565	12,743
ALBANIA	526,862	1,976,308	372,931	274,574	1,001,215	180,211	252,288	975,094	192,720

Source: Instat

A better visual distribution is shown in the next graphic, showing that those Prefectures with more pronounced negative tendencies (Kukes, Diber, Elbasan, Lezha) are also those that have a higher percentage of population in the young fringe (0-14).

Figure II - 7. Population by Regions and age groups (2017)

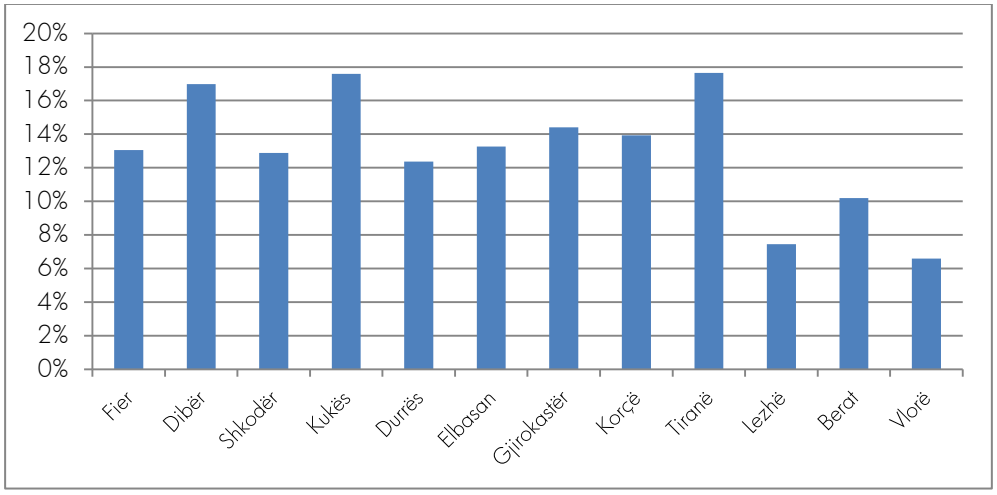


Source: Instat

2.2.5. Review of the labour market

According to the *Regional Statistical Yearbook, 2018*, the employment in the public sector increased 0.15% from 2016 to 2017. Employment in the private non-agricultural sector during 2016-2017 showed a growing trend, being the prefecture Tirana the one with the largest increase in the number of employees in the non-agricultural private sector (17.7%), while the prefecture of Vlora had the lowest growth (6.6%).

Figure II - 8. Employment growth in non-agricultural private sector, 2016-2017



Source: Regional Statistical Yearbook, 2018

In 2017, the unemployment of the age group 15-29 constituted 25.9% of the total number of registered jobseekers. However, this rate has been gradually reduced since 2014, motivated by two factors: the progressive economic recovery after the financial crisis and the migration flows, mainly of young population.

Table II - 12. Unemployment rates by gender and age

Unemployment rate					
Gender/Age	2013	2014	2015	2016	2017
Total					
15-29	27.2	32.5	33.2	28.9	25.9
30-64	13.1	13.3	12.5	11.8	10.8
15-64	16.4	17.9	17.5	15.6	14.1
15+	15.9	17.5	17.1	15.2	13.7
Male					
15-29	29.7	35.6	32.3	29.7	27.0
30-64	14.6	14.0	12.2	12.2	11.3
15-64	18.3	19.7	17.5	16.4	15.1
15+	17.8	19.2	17.1	15.9	14.6
Female					
15-29	23.6	27.4	34.7	27.8	24.0
30-64	11.2	12.3	12.9	11.2	10.1
15-64	13.8	15.5	17.4	14.6	12.8
15+	13.5	15.2	17.1	14.4	12.6

Source: Instat

The distribution of registered unemployed jobseekers, analyzed by their educational level, shows that those prefectures with more rural economy present lower levels of jobseekers with primary educational level and higher levels of jobseekers with tertiary education.

This information could not be found disaggregated for 2017, but national figures shows how the unemployment rates are decreasing in every category.

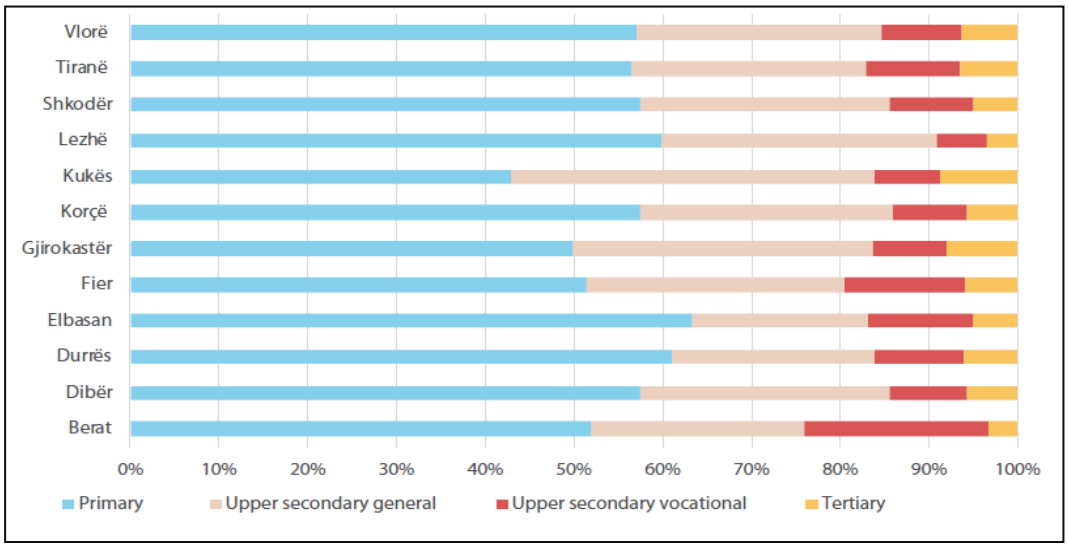
Table II - 13. Registered unemployed jobseekers, 2016 and total 2017

					Educational Level			
Region	Total	Male	Female	Youth Aged 15-24	Primary	Upper Secondary General	Upper Secondary Vocational	Tertiary
Tirana	18,941	9,500	9,441	3,161	10,835	4,647	2,524	936
Elbasan	13,700	6,913	6,787	1,721	8,075	3,197	1,580	848
Fier	13,537	6,238	7,299	2,048	6,940	3,447	2,183	967
Vlora	11,576	5,950	5,626	2,394	5,276	3,744	959	1,597
Durres	10,500	5,017	5,483	1,160	6,038	2,726	1,019	717
Shkoder	10,298	5,564	4,734	1,289	5,712	2,893	1,078	615
Kukes	10,053	4,959	5,094	1,901	4,162	4,184	812	895
Korça	8,981	4,540	4,441	1,073	4,917	2,533	891	642
Lezha	7,143	3,353	3,790	677	4,035	2,310	452	345
Diber	5,676	2,963	2,713	1,054	3,196	1,443	624	413
Berat	4,936	2,580	2,356	427	2,717	1,119	952	147
Gjirokaster	4,370	2,213	2,157	553	1,998	1,491	378	502
ALBANIA	119,710	59,790	59,920	17,457	63,901	33,735	13,452	8,623
ALBANIA TOTAL 2017	89,780	42,386	47,394		50,250	34,260		5,270

Source: Instat

Inversely, prefectures with higher industrial and socioeconomic development (Tirana, Durres) have fewer jobseekers with tertiary education, and more percentage of primary educated unemployed population.

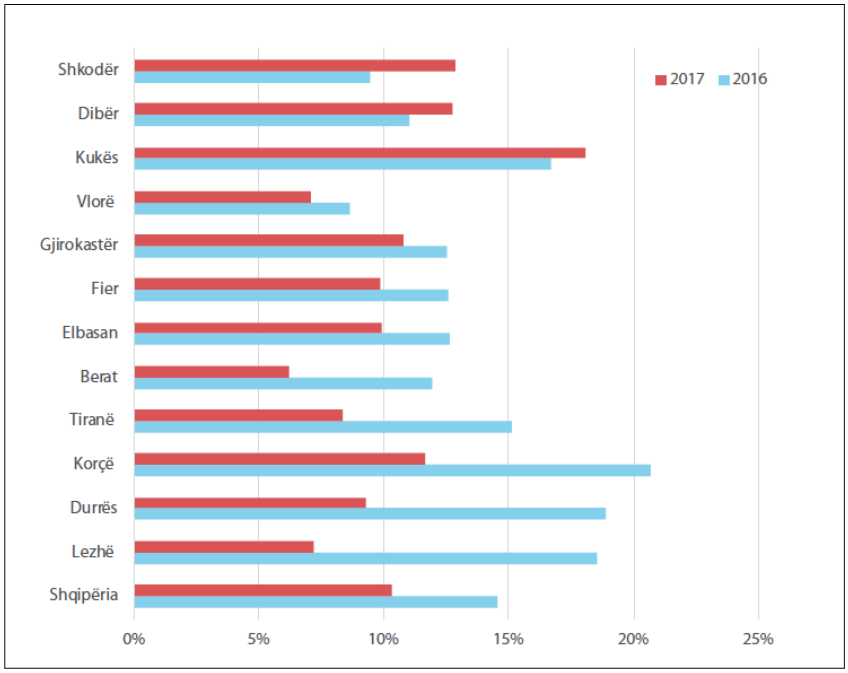
Figure II - 9. Distribution of registered unemployed jobseekers by educational level, 2017



Source: Regional Statistical Yearbook, 2018

The percentage of youth in the total number of registered unemployed jobseekers in each prefecture is higher in prefecture of Kukes (average 18%) and lower in the prefecture of Berat (on average 6%). In the prefecture of Lezha the percentage of youth over the total number of registered unemployed jobseekers shows a decreasing trend from 19% in 2016 to 7% in 2017, while in the Shkoder and Diber districts there is a growing tendency of 9.5% and 11.5% in 2016, 12.5% and 12% in 2017.

Figure II - 10. Share of youth to the total registered unemployed jobseekers, 2016 and 2017



Source: Regional Statistical Yearbook, 2018

2.2.6. Review and analysis of the fiscal accounts

Albania has made significant efforts to reduce fiscal deficits in the past decades, improving revenue administration and reducing the public debt. The previous Plan (ANTP2) showed positives trends towards reversing the negative cash balance, which has occurred in the years in between both Plans.

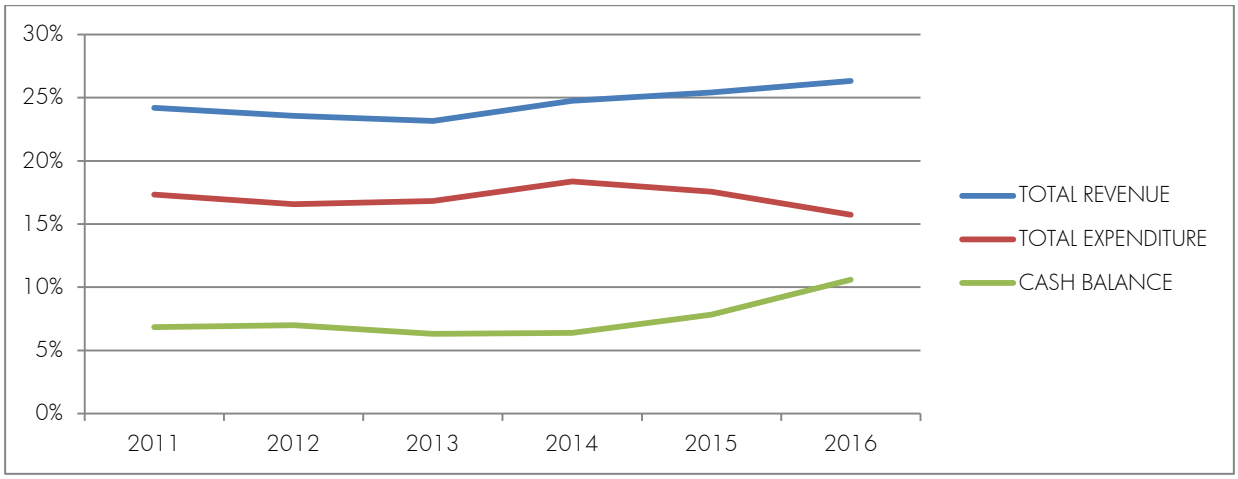
Table II - 14. Fiscal accounts (in mlln. ALL)

	2011	2012	2013	2014	2015	2016
GDP	1,300,624	1,332,811	1,350,053	1,395,305	1,434,307	1,475,251
REVENUE	314,510	313,869	312,418	345,306	364,264	388,332
EXPENDITURE	225,438	220,740	227,099	256,177	251,802	231,932

Source: Ministry of Finances, Albania

The total revenues have increased every year since 2014, largely covering the expenditures, which have been reduced compared to previous decades. This trend has produced a positive balance, increasing the volume every year.

Figure II - 11. Evolving fiscal deficit 2011-2016



Source: Ministry of Finances, Albania

Table II - 15. Fiscal accounts 2011-2016 in percent of GDP

Description	2011	2012	2013	2014	2015	2016
TOTAL REVENUE	**24.18**	**23.55**	**23.14**	**24.75**	**25.40**	**26.32**
Own funds	0.29	0.41	0.42	0.72	0.77	0.99
Third-party accounts	3.96	3.99	4.09	4.36	4.66	6.28
State, social insurance and other social organizations	3.96	3.99	4.09	4.36	4.66	5.06
Miscellaneous debtors and creditors	0.00	0.00	0.00	0.00	0.00	1.22
Revenues	19.93	19.15	18.63	19.67	19.96	19.05
Taxes and mandatory contributions	17.95	17.49	17.02	18.19	18.03	17.45
Non-tax revenues	1.85	1.50	1.46	1.30	1.79	1.49
Grants	0.08	0.11	0.09	0.13	0.11	0.11
Financial revenue	0.05	0.04	0.04	0.05	0.04	-0.02
Extraordinary revenue	0.00	0.00	0.02	0.00	0.01	0.01
TOTAL EXPENDITURE	**17.33**	**16.56**	**16.82**	**18.36**	**17.56**	**15.72**

Description	2011	2012	2013	2014	2015	2016
Fixed assets	5.06	4.30	4.55	4.76	4.54	4.30
Expenditure for acquisition of fixed assets	5.06	4.30	4.55	4.76	4.54	4.30
Expenses by nature	12.27	12.26	12.27	13.60	13.01	11.42
Current expenditures	9.11	9.15	9.06	9.81	9.92	8.99
Interest on domestic loans	2.63	2.55	2.66	2.27	1.91	1.73
Interest on foreign loans	0.53	0.56	0.55	0.59	0.78	0.70
Extraordinary expenses	0.00	0.00	0.00	0.92	0.40	0.00
CASH BALANCE	6.85	6.99	6.32	6.39	7.84	10.60

Source: Ministry of Finances, Albania

2.2.7. Review of Foreign Trade

The structure of Albania's foreign trade has remained unchanged during the period 2013-2017, experimenting gradual growths with small recessions in 2015. The asymmetry of the trade balance continues to grow in favour of the imports, despite of a greater increase in exports in the last year.

Table II - 16. Albania foreign trade between 2013 and 2017 in million ALL

Description	2013	2014	2015	2016	2017
Foreign trade (imp + exp)	763,775	808,040	787,799	822,746	899,174
Export (FOB)	246,397	255,759	243,183	243,498	272,988
Import (CIF)	517,378	552,281	544,616	579,248	626,186
Trade balance	-270,980	-296,522	-301,433	-335,750	-353,198
Exports growth		4%	-5%	0.1%	12%
Imports growth		7%	-1%	6%	8%

Source: Instat

2.2.7.1. Trade by partners

In regards of the main partner countries during this period, exports in absolute terms increased significantly to Italy, Germany and Greece. Compared with five years ago, the map of Albanian exports is significantly diversified.

In 2016 exports from the EU countries occupied 77.9% of exports, having an average annual increase by 6.1% during 5-year period (2012-2016); while exports to Euro zone countries occupied 72.3 % of exports, increasing by 5.3 % on annual average, during 5-year period (2012-2016).

Italy remains as the partner with largest weight in exports, occupying 55.5% in terms of value and 17% in terms of volume. Kosovo is the second largest partner with a 6.7% of weight in value but 21% (the largest) in terms of volume.

Table II - 17. Export's value by Countries of origin (main partners year 2016)

Description	2012		2013		2014		2015		2016	
	Value mlln Lek	Spc Weight %	Value mlln Lek	Spc Weight %	Value mlln Lek	Spc Weight %	Value mlln Lek	Spc Weight %	Value mlln Lek	Spc Weight %
Italy	98,779	50.6	102,908	45.8	123,139	52.1	113,390	50.3	123,032	55.5
Kosovo	16,383	8.4	15,321	6.8	16,723	7.1	19,555	8.7	14,870	6.7
Greece	8,840	4.5	6,866	3.1	8,213	3.5	8,673	3.8	10,048	4.5
Malta	3,251	1.7	16,531	7.4	15,302	6.5	11,205	5.0	7,986	3.6
Germany	6,325	3.2	9,078	4.0	6,506	2.8	7,061	3.1	7,565	3.4
Spain	18,478	9.5	22,918	10.2	15,714	6.7	11,381	5.0	6,568	3.0
China	5,014	2.6	10,312	4.6	8,148	3.4	6,130	2.7	6,176	2.8
FYROM	3,928	2.0	4,137	1.8	5,018	2.1	6,037	2.7	5,876	2.7
Serbia	1,585	0.8	2,148	1.0	1,469	0.6	2,997	1.3	4,019	1.8
Monte Negro	1,646	0.8	2,913	1.3	3,267	1.4	3,065	1.4	3,982	1.8
Others	30,933	15.8	31,460	14.0	32,767	13.9	35,969	16.0	31,562	14.2
Total	195,163	100.0	224,592	100.0	236,266	100.0	225,462	100.0	221,684	100.0

Source: Dogana Customs

The rest of partner's share has remained stable, with exports to Spain the ones that decrease the most (in terms of value). The volume of exports to FYROM and Malt have been increasing, doubling their shares.

Table II - 18. Export's volume by Countries of origin (main partners year 2016)

Description	2012		2013		2014		2015		2016	
	Volume *Ton*	Spc Weight %	Volume *Ton*	Spc Weight %	Volume *Ton*	Spc Weight %	Volume *Ton*	Spc Weight %	Volume *Ton*	Spc Weight %
Kosovo	826,606	24.0	827,558	20.0	911,827	22.0	1,012,314	26.0	760,258	21.0
Italy	744,928	22.0	647,269	16.0	675,009	16.0	571,451	15.0	605,427	17.0
FYROM	229,111	7.0	276,875	7.0	443,473	11.0	360,880	9.0	493,861	14.0
Malta	57,149	2.0	295,549	7.0	293,098	7.0	352,531	9.0	432,059	12.0
China	271,174	8.0	618,717	15.0	423,575	10.0	296,414	8.0	333,232	9.0
Monte Negro	148,381	4.0	190,981	5.0	210,705	5.0	212,994	5.0	257,179	7.0
Greece	172,862	5.0	115,688	3.0	104,532	3.0	114,562	3.0	142,206	4.0
Spain	324,560	9.0	378,103	9.0	254,536	6.0	271,321	7.0	131,366	4.0
Serbia	50,189	1.0	68,155	2.0	84,865	2.0	87,557	2.0	95,480	3.0
Others	634,650	18.0	646,535	16.0	772,436	19.0	658,526	17.0	376,808	10.0
Total	3,459,610	100.0	4,065,430	100.0	4,174,055	100.0	3,938,550	100.0	3,627,877	100.0

Source: Dogana Customs

In 2016 imports from the EU countries occupied 63.2 % of imports, having an average annual increase by 0.8 % during 5-year period (2012-2016); while imports from Euro zone countries occupied 55.2 % of imports, increasing by 0.9 % on annual average, during 5-year period (2012-2016).

Table II - 19. Import's value by Countries of origin (main partners year 2016)

Description	2012		2013		2014		2015		2016	
	Value mlln Lek	Spc Weight %	Value mlln Lek	Spc Weight %	Value mlln Lek	Spc Weight %	Value mlln Lek	Spc Weight %	Value mlln Lek	Spc Weight %
Italy	152,698	31.6	153,632	33.5	147,888	29.4	149,122	30.3	152,956	29.2
Germany	29,598	6.1	26,796	5.8	29,778	5.9	32,122	6.5	49,145	9.4
China	30,377	6.3	31,349	6.8	36,030	7.2	41,938	8.5	45,629	8.7
Greece	46,314	9.6	41,846	9.1	48,068	9.6	39,076	7.9	41,548	7.9
Turkey	27,109	5.6	29,442	6.4	34,822	6.9	38,724	7.9	41,461	7.9
Serbia	20,524	4.3	13,587	3.0	21,208	4.2	19,349	3.9	16,730	3.2
Spain	9,722	2.0	7,345	1.6	7,669	1.5	7,666	1.6	11,780	2.2
Rusia	12,719	2.6	8,937	1.9	10,786	2.1	11,035	2.2	10,316	2.0
France	7,391	1.5	8,393	1.8	14,092	2.8	11,120	2.3	10,277	2.0
USA	10,849	2.2	11,125	2.4	12,875	2.6	7,986	1.6	9,809	1.9
Others	135,238	28.0	126,156	27.5	140,034	27.8	134,089	27.2	134,962	25.7
Total	482,539	100.0	458,607	100.0	503,250	100.0	492,227	100.0	524,614	100.0

Source: Dogana Customs

Imports from Greece decreased during 2012-2016 period, while imports from Italy, China, Turkey and Germany increased during this period. In 2016, partner with the largest weight in imports is Italy with 29.3 %, having an average annual increase by 0.4 % during 5-year period (2012-2016); second partner is Germany occupying 9.5 % of imports, having an average annual increase by 13.6 % during 5-year period (2012-2016); the third largest trade partner in imports is China occupying 8.8 % of the total import, having an average annual increase by 8.1% during 5-year period (2012-2016); the fourth largest trade partner in imports is Greece occupying 7.9 % of total imports, having an average annual decrease by 3.8 % during 5-year period (2012-2016). Other countries with a largest weight in the structure of import in 2016 were: Turkey with 7.9 %, Serbia with 3.1 %, Spain with 2.2 % and France with 2.0 %.

Table II - 20. Import's volume by Countries of origin (main partners year 2016)

Description	2012		2013		2014		2015		2016	
	Volume *Ton*	Spc Weight %	Volume *Ton*	Spc Weight %	Volume *Ton*	Spc Weight %	Volume *Ton*	Spc Weight %	Volume *Ton*	Spc Weight %
Italy	1,059,316	28.6	982,246	27.5	847,910	23.1	890,192	25.5	839,669	22.5
Greece	543,240	14.6	396,958	11.1	474,546	12.9	378,624	10.8	408,865	11.0
Turkey	187,570	5.1	181,824	5.1	221,422	6.0	239,762	6.9	299,622	8.0
Rusia	358,239	9.7	273,023	7.6	364,994	9.9	319,645	9.2	283,362	7.6
Serbia	156,457	4.2	182,781	5.1	234,446	6.4	234,409	6.7	247,458	6.6
China	103,215	2.8	111,065	3.1	121,929	3.3	121,390	3.5	185,348	5.0
Germany	73,374	2.0	73,406	2.1	83,873	2.3	75,783	2.2	174,179	4.7
FYROM	133,109	3.6	162,927	4.6	157,802	4.3	145,195	4.2	130,429	3.5
Spain	99,023	2.7	120,225	3.4	100,056	2.7	76,360	2.2	124,678	3.3
Kosovo	138,388	3.7	184,861	5.2	133,923	3.6	124,114	3.6	110,051	2.9
Others	857,619	23.1	900,835	25.2	930,904	25.4	884,978	25.4	927,010	24.8
Total	3,709,551	100.0	3,570,150	100.0	3,671,804	100.0	3,490,452	100.0	3,730,672	100.0

Source: Dogana Customs

2.2.7.2. Trade by mode of transport

International transport of goods by road is the most common mode of transport for export/importing of goods during 2012-2016. During this period the annual average of the value of goods transported by sea is 71.6 % and by road is 26.3 % of total exports.

Table II - 21. Exports by mode of transport (M Lek)

	2012	2013	2014	2015	2016	2017
Total	213,030	246,397	255,759	243,183	243,498	271,988
Sea transport	159,473	189,266	188,788	164,305	158,226	
Road transport	49,519	50,872	64,564	73,443	78,413	
Air transport	1,673	2,101	1,633	1,095	1,474	
Other mode of transport	2,365	4,158	774	4,339	5,385	

Source: Statistical Yearbook, 2017

While for imports the annual average of the value of goods transported by sea is 53.3 % and by road is 38.1 % of total imports.

The total amount of exports increased in 2017. There is not any disaggregated information by mode, but the total volume for 2017 increased to 272,988.

Table II - 22. Imports by mode of transport (M Lek)

	2012	2013	2014	2015	2016	2017
Total	528,490	517,378	552,281	544,616	579,248	626,186
Sea transport	283,041	289,369	293,381	280,965	301,741	
Road transport	186,821	184,888	203,824	220,317	244,187	
Air transport	17,145	21,358	19,238	20,916	19,953	
Other mode of transport	41,482	21,762	35,838	22,419	13,367	

Source: Statistical Yearbook, 2017

As with the exports, the total amount of imports increased in 2017. There is not any disaggregated information by mode, but the total volume for 2017 increased to 626,186.

2.2.8. Review of Foreign Direct Investments (FDI)

Albania has made a steady progress from 1991 with the liberalization of the market following the democratic changes. In years the Government has worked for a framework to promote the FDI. Today big foreign companies are present in key economic sectors like petroleum industry, mining and quarrying, telecommunication and transport infrastructure. Foreign Direct Investments had a positive impact on economic growth during the period 2013-2017.

In the table below is the situation of the FDI during period 2013-2017 expressed in million USD. The Bank of Albania (BOA) is the main source for data collection of Foreign Direct Investments in the country. The table has combined the data of UNCTAD and BoA, to give a picture of the situation of the inward FDI in Albania by comparing it with GDP.

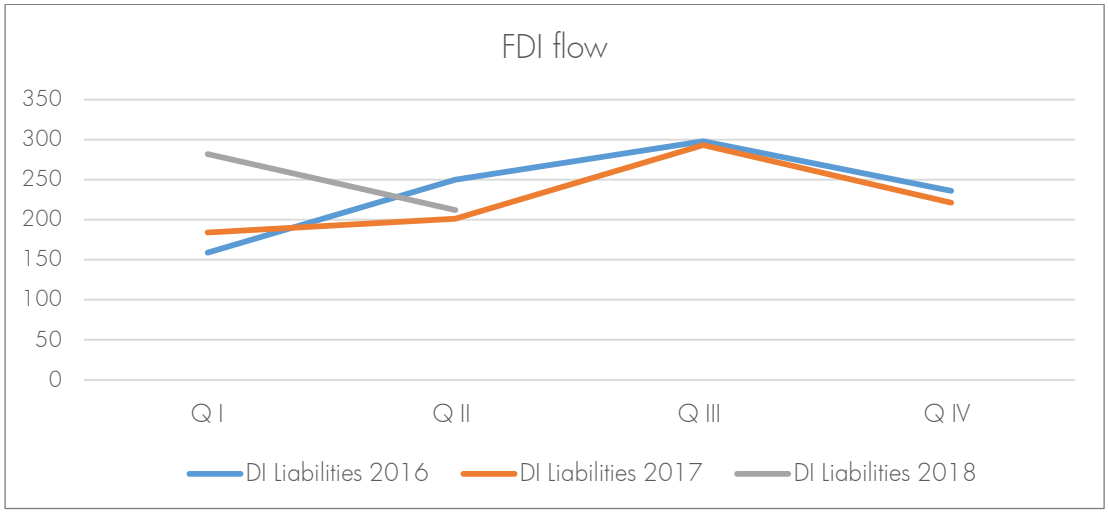
Table II - 23. Situation of the FDI during period 2013-2017 expressed in million USD

Indexes	2013	2014	2015	2016	2017
GDP	12,780	13,220	11,390	11,880	13,040
FDI Flows	1,265.5	1,110	945	1,100	1,119
FDI Flows % to GDP	9.91	8.39	8.3	9.3	8.5
FDI Stock	3,930.7	4,295	4,337	4,985	6,817
FDI Stock % to GDP	30.77	32.47	38.1	41.1	55.4

Source UNCTAD 2018, BoA

Normally the FDI are calculated in quarters of the year by the Bank of Albania. During 2018 is noted a slow down on the second quarter of the inward FDI flow, while the Government believes that will reach 1bln USD at the end of year 2018. One of the reasons of this slowdown is that the main energy projects that are feeding it, like Trans Adriatic Pipeline and Devoll Hydropower plant investment, are on the final phase of their investments. The chart below has compared the last 3 years flow 2016-2018 and will be updated when the new data will be released.

Figure II - 12. Flow of Foreign Direct Investments 2016-2018



2016-2018 FDI source BoA

The institution in charge for the attraction of foreign investment is AIDA, the Albanian Investment and Development Agency founded on 2010 by law 10233/10. AIDA offers to foreign investors the support for their investment projects and provides aftercare services. Albania is attractive for the foreign investors due to the European perspective of the country, dynamic growth rate of the economy, geographical position, low cost labour force, natural resources, etc, while need to address the issues of the informality rate of the economy and the stability of the fiscal and customs system.

Albania has adopted a new law 55/2015 on strategic investment to increase the guarantees and to shorten the registration procedures by providing a "unique window" for the strategic investor. The law foresees as strategic investments the private, the public or public- private investments, in the following sectors:

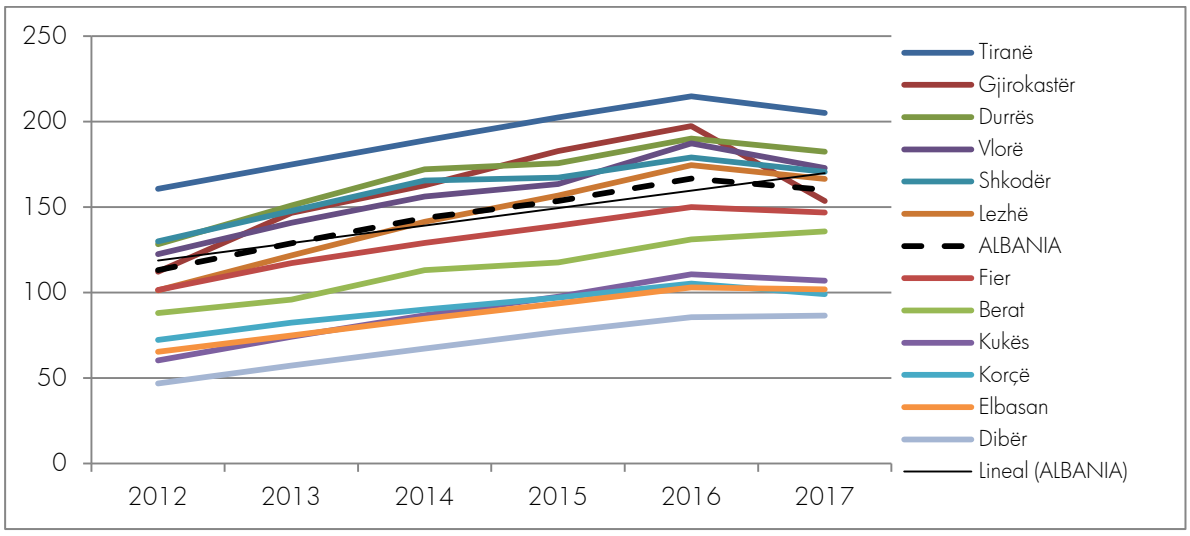
- Energy and mining;
- Transport, telecommunications, infrastructure and urban waste;
- Tourism;
- Agriculture and fishery;

- Technical and Economic Development Areas;
- Priority Development Areas that have impact on the Albanian economy.

2.2.9. Review of Transport indicators

The generalized trend in the country is an increase in the number of registered vehicles. The motorization rate increases in all the prefectures, with a similar cadence. The top rates occur in those prefectures with bigger standards of GDP per capita (see Figure II - 4. GDP per capita - %). Especially remarkable is the prefecture of Gjirokaster, who has experienced the highest rate growth in the studied period (2012-2016), coming from being just in the national mean in 2012 to the second highest rate in 2016.

Figure II - 13. Number of passenger's road transport vehicles by prefectures, per thousand inhabitants



Source: Instat

The following table shows the most detailed and actualized distribution of vehicles for passengers by type, divided in 4 categories: cars, buses & minibuses, motorcycles and camping trailer. This data will be used in the analysis process of the survey campaign, helping to characterize each zone. Information is given for both 2016 and 2017, since 2017 experienced a decrease in every category, which does not relate to the general trend in the Country, with a regular increasing of vehicles.

Table II - 24. Road vehicles for passengers. 2016

Region	2016				
	Total	Cars	Buses & Minibuses	Motorcycles	Camping Trailer
ALBANIA	479,217	436,013	7,050	36,096	58
Berat	17,762	15,005	357	2,394	6
Diber	11,039	10,606	228	205	0
Durres	53,236	49,379	643	3,211	3
Elbasan	29,612	26,155	524	2,929	4
Fier	45,751	41,075	607	4,063	6
Gjirokaster	13,419	12,891	240	288	0
Korça	22,857	21,755	373	729	0
Kukes	8,991	8,763	180	47	1
Lezha	22,720	21,133	346	1,240	1

Region	2016				
	Total	Cars	Buses & Minibuses	Motorcycles	Camping Trailer
Shkoder	37,604	32,108	520	4,968	8
Tirana	181,016	165,141	2,387	13,471	17
Vlora	35,210	32,002	645	2,551	12

Source: Instat

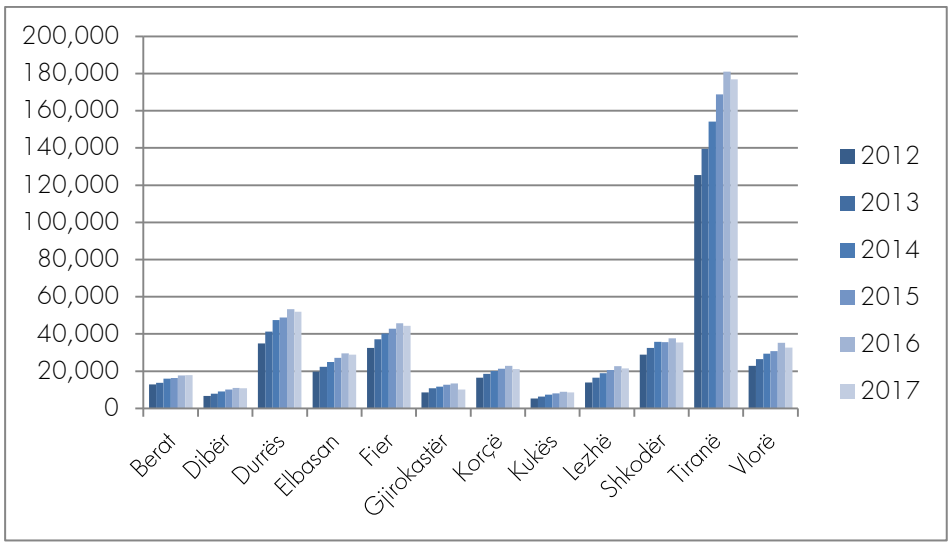
Table II - 25. Road vehicles for passengers. 2017

Region	2017				
	Total	Cars	Buses & Minibuses	Motorcycles	Camping Trailer
ALBANIA	460,299	422,084	6,761	31,399	55
Berat	17,913	15,206	335	2,367	5
Diber	10,859	10,428	248	182	1
Durres	51,959	48,833	717	2,405	4
Elbasan	28,894	26,101	520	2,270	3
Fier	44,413	40,785	615	3,008	5
Gjirokaster	10,122	9,791	175	156	0
Korça	21,216	20,271	349	595	1
Kukes	8,510	8,321	137	51	1
Lezha	21,480	20,212	306	960	2
Shkoder	35,469	31,131	491	3,840	7
Tirana	176,833	161,168	2,309	13,342	14
Vlora	32,631	29,837	559	2,223	12

Source: Instat

The figure below shows the evolution through the past years of passenger vehicles by prefectures, shown in absolute terms. It should be noted that, despite population decreasing in almost every region, the total number of vehicles registered grows in all of them, although 2017 has shown a slight decrease in all the Regions.

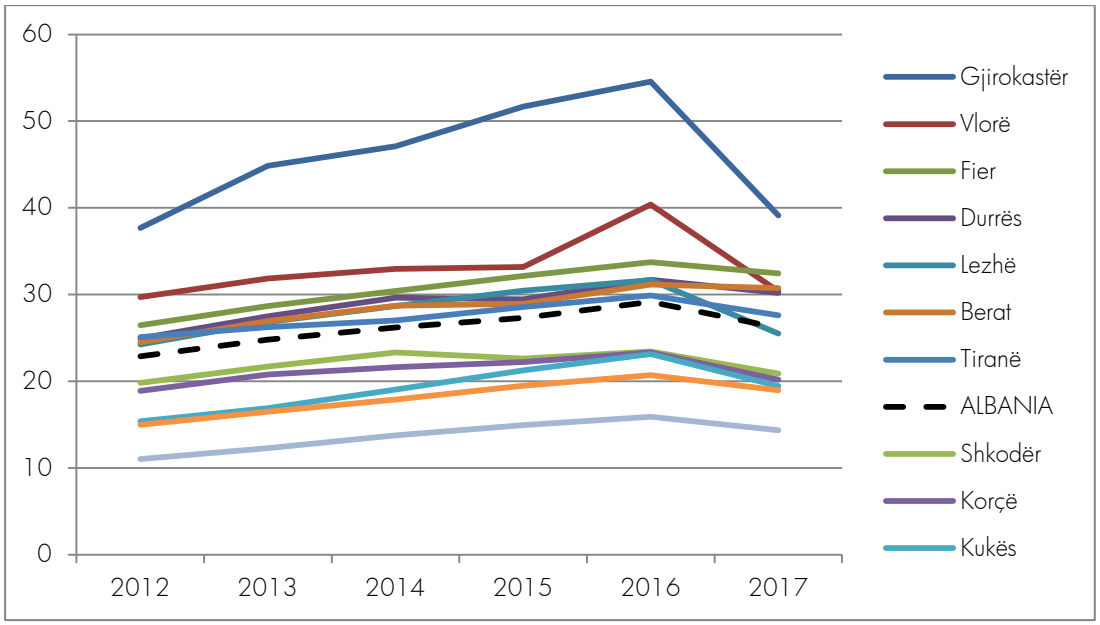
Figure II - 14. Total number of passenger's road transport vehicles by prefectures (2012-2017)



Source: Instat

The Figure II - 15 represents the number of road vehicles of goods per prefecture, per thousand inhabitants. It clearly shows how Gjirokaster has both the bigger rate and pace of growth, followed by Vlora, which experienced a big increment in 2016. In 2017, all the Regions experience a slight decrease in the number of vehicles.

Figure II - 15. Number of goods transport vehicles by prefectures, per thousand inhabitants



Source: Instat

Given the 2017 decrease, the disaggregated information is shown both for 2016 and 2017.

Table II - 26. Road vehicles of goods. 2016

Region	2016				
	Total	Truck & Road Tractors	Agriculture Tractors	Trailers	Technology. Machinery
ALBANIA	83,889	74,973	967	7,504	445
Berat	4,220	3,899	78	241	2
Diber	2,050	1,822	8	208	12
Durres	8,885	7,443	139	1,263	40
Elbasan	5,952	5,361	83	493	15
Fier	10,295	9,199	176	883	37
Gjirokaster	3,710	3,307	58	338	7
Korça	5,067	4,431	64	515	57
Kukes	1,880	1,656	5	213	6
Lezha	4,126	3,710	68	307	41
Shkoder	4,927	4,519	71	335	2
Tirana	25,184	22,634	53	2,283	214
Vlora	7,593	6,992	164	425	12

Source: Instat

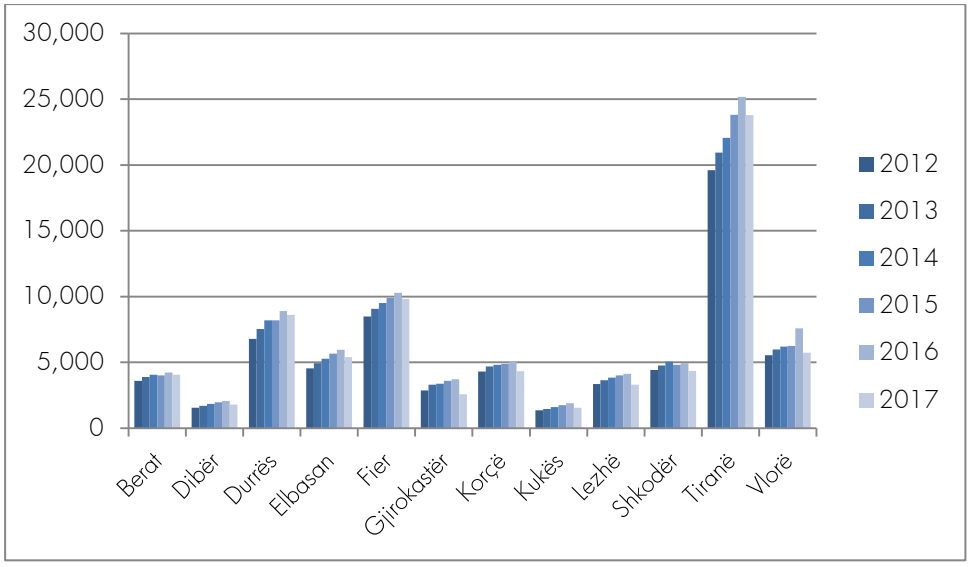
Table II - 27. Road vehicles of goods. 2017

Region	2017				
	Total	Truck & Road Tractors	Agriculture Tractors	Trailers	Technology. Machinery
ALBANIA	75,271	66,593	822	7,326	530
Berat	4,055	3,718	70	245	22
Diber	1,800	1,581	5	201	13
Durres	8,600	6,997	94	1,459	50
Elbasan	5,384	4,807	58	512	7
Fier	9,818	8,728	171	867	52
Gjirokaster	2,580	2,301	25	247	7
Korça	4,327	3,764	71	435	57
Kukes	1,548	1,322	5	211	10
Lezha	3,292	2,918	54	270	50
Shkoder	4,343	3,942	74	325	2
Tirana	23,791	21,202	117	2,231	241
Vlora	5,733	5,308	78	323	24

Source: Instat

In the same way as with passengers, the following figure shows the absolute number of vehicles by Prefecture.

Figure II - 16. Total of goods transport vehicles by prefectures (2012-2017)



Source: Statistical Yearbook 2018

2.2.10. Road safety indicators

The number and distribution of road accidents and casualties has experienced a heterogeneous development over the years. In order to analyze it with the right approach, a brief socioeconomic review will be done. In recent years, Albania has experienced a migratory flow towards large urban centres, such as Tirana or Durres. This trend is closely linked to the economic development of the country, given the natural concentration of industry in large cities. This situation also influences the economic tendency, with Tirana holding over 40% of the national GDP, and the regions of Durres, Elbasan and Fier sharing almost 30% of it.

The economic development of the country implies an increase in both the passenger and goods trips. Regarding the passenger vehicles fleet, the latest available statistics show an overall growth in the 12 Regions, with the increase of the vehicle fleet in the Tirana Region being especially marked. Concerning the road vehicles for goods transportation, the distribution is more uniform, with Tirana keeping a predominant role.

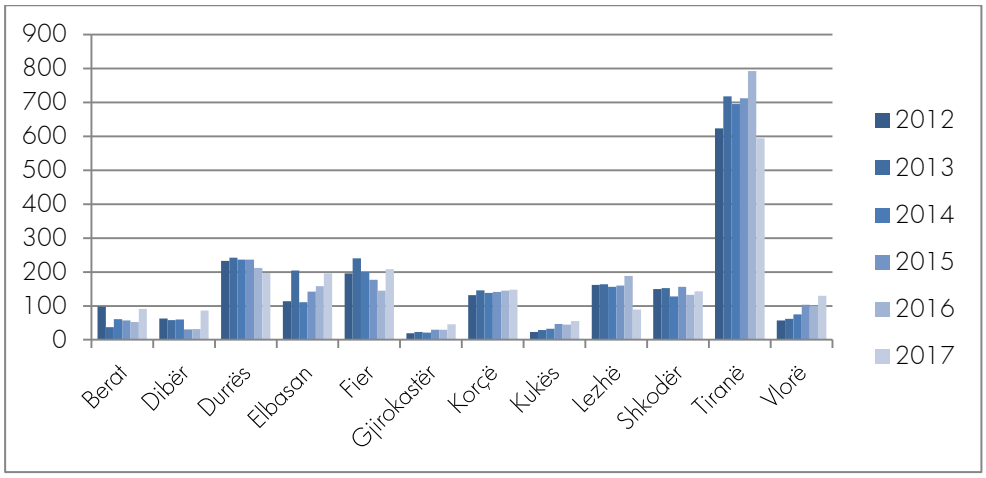
All these trends serve as a preamble to analyze the road accidents and casualties. The rise of Albanian economy implies a greater number of displacements and vehicles, with direct impact on accident statistics. This is one of the main challenges to face, as the national development should not entail a worsening of the safety indicators.

This Plan deals, integrated within its objectives, with the enhancement of the road network, both with new constructions and with the rehabilitation of the current network. As a preliminary evaluation of the different actions and their suitability, this section examines the accidents and casualties statistics.

The graphic below shows how the number of accidents remains stable in the regions of mid-high volume of vehicles (Durres, Elbasan, Fier) even with slight drops. Nonetheless, the main area of incident (Tirana) shows a ascendant tendency, which has to be taken into account necessarily in the following sections. However, in 2017 Tirana presented a strong decrease in the number of accidents.

Additionally, despite being lower values, it should be noted the increase of accidents in rural areas, with traditionally lower levels of trips and, as a result, incidents. This Plan will bear in mind this casuistry, as part of the considerations for the territorial cohesion of rural areas and their stimulation, which will imply greater mobility standards.

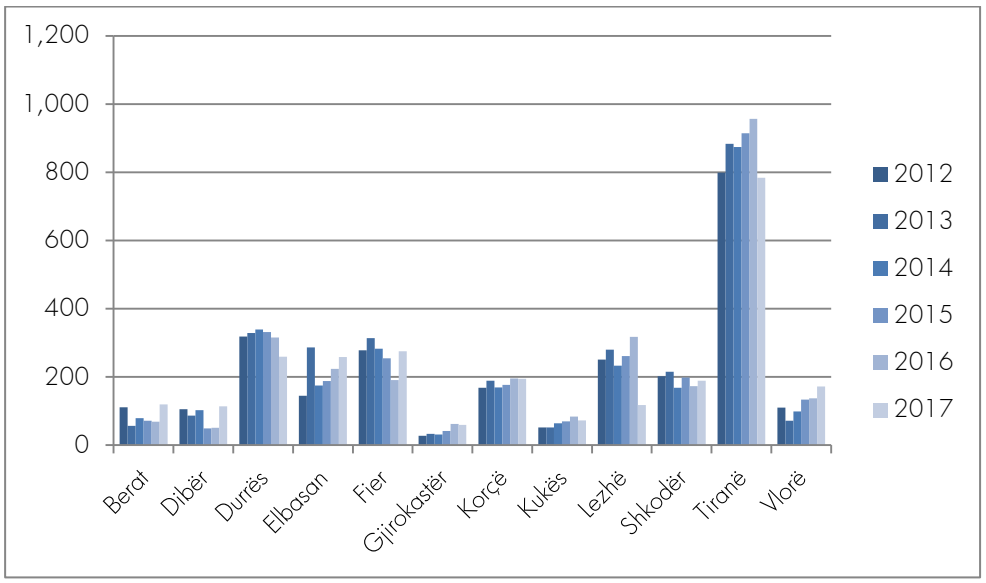
Figure II - 17. Road accidents by Regions (2012-2017)



Source: Statistical Yearbook 2018

The global casualties statistics clearly shows a reduction of the gap between Tirana and the rest of Regions, compared with the previous graphic. This might respond to different reasons, like safer roads and newer cars. Also, in 2017 the reduction of road casualties in Tirana was really significant.

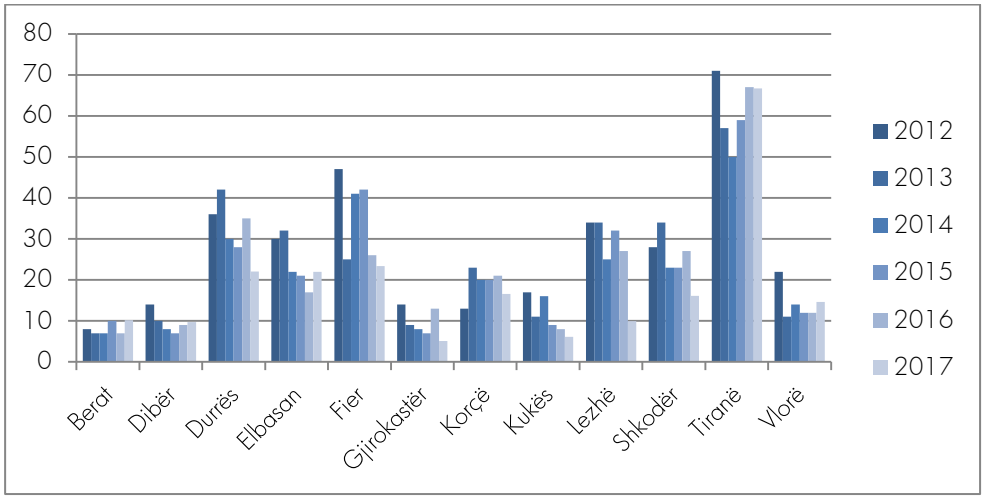
Figure II - 18. Road casualties by Regions (total)



Source: Statistical Yearbook 2018

Furthermore, isolating the casualties that end in decease, the gap nearly disappears, which has to be taken into account in following judgments, such as the priorities in terms of road rehabilitation and maintenance projects, and the primary design of new corridors. The number of persons killed in road accidents has strongly decreased from 2012 to 2017.

Figure II - 19. Road casualties by Regions (killed)



Source: Statistical Yearbook 2018

2.3. FREIGHT AND COMMODITIES

The socioeconomic analysis also includes a characterization of the main commodities transported in the country, as this information is crucial for the following phases of the Plan.

The Freight transport model will use a "surplus and deficit" methodology to analyze present and future demand. The model will attempt to identify the main commodities produced and consumed in Albania at the level of TAZ, to determine the main movements of freight traffic.

As in ANTP2, the smallest TAZ which can be defined taking into account the general country statistical system is the district. In addition there are two special zones (the ports of Durres and Vlora) and external zones and border crossings (three for Greece, one each for Montenegro, Kosovo and FYROM and other major trading countries). Emphasis should be placed in identifying the border crossing for major commodities analyzed.

In ANTP2, over twenty commodities were grouped in five sectors (mineral or ore production, oil and petroleum products or fuels, construction materials, agricultural products and beverages).They included all those considered for ANTP1 plus the ones more significant during the last five years. It would be desirable to include the same, or, at least one type among those listed below.

2.3.1. Regional analysis of freight traffic by Transport Analysis Zones

There are different sources for the data collection of the commodities in Albania. The Institute of Transport has a database created in years by exercising the yearly update of the ANTP with the data collected. However the source of raw data has been different. The main source of data is INSTAT, the Institute of Statistics in Albania, while for the exports and imports in Albania and their entry point we were referred to the raw data the IoT received from the General Directorate of Custom. However all the data are received as raw materials and processed by the Consultant to be included in the model.

The data for the General classification of Freight are collected as follows:

General classification:

- Agriculture Products and Fertilizers – INSTAT, Institute of Statistics and Custom, IoT
- Beverages – GD of Customs, IoT
- Oil and derivates – EITIS, Extractive Industries Transparency Initiative and AKBN National Agency of Natural Resources, GD of Customs, IOT
- Construction Materials – GD of Customs, IoT
- Minerals, ores and concentrates – EITIS, AKBN and GD of Customs, IoT
- Manufactures – GD of Customs, IoT
- Livestock, animal-made products – INSTAT and GD of Customs, IoT

Commodities:

The following classification has been settled according to first stages of the Plan, harmonizing both the socioeconomic information available from previous Plans and works and the Survey Campaign undertaken as part of the ANTP3. Keeping these different groupings in mind, the Consultant has collected data of:

- Vegetables, fruits
- Flour, wheat, corn, etc.
- Prepared foods, beverages, tobacco
- Mineral products, cement
- Chemical industry products
- Plastic, rubber and related products
- Leather and related products
- Wood and wood-made products
- Paper and paper-made articles
- Textile and textile articles
- Footwear
- Stone-made articles, plaster, ceramics, glass
- Pearls, precious stones, precious metals
- Metals and related articles
- Mechanical and electrical equipment
- Vehicles
- Fuel, LPG, etc.
- Other

Also, these groups have been aggregated in bigger clusters, making a general classification as follows:

- Agriculture Products and Fertilizers

- Beverages
- Oil and derivates
- Construction Materials
- Minerals, ores and concentrates
- Manufactures
- Livestock, animal-made products

2.3.2. Review of Foreign Trade

A full review of the national statistics of foreign trade was undertaken, given the importance that this entailed in the characterization of the model. Traffic surveys were designated to several border crossing segments, but the fluctuations of the freight flows require the carrying out of a previous in-depth study, so that no flow is left to characterize.

2.3.2.1. Trade by volume of commodities

The following table shows the volume of commodities, in tons, of the different transport modes, divided by import and export.

Table II - 28. Foreign trade by volume of main groups, in Tons

General classification	Road		Rail		Air		Sea	
	Import	Export	Import	Export	Import	Export	Import	Export
Agriculture Products and Fertilizers	458,505	238,984	16,243	0	60	94	678,250	23,300
Beverages	108,474	19,947	278	0	3	25	51,892	3,198
Oil and derivates	24,661	492,207	12,352	0	340	11,999	1,598,295	1,185,769
Construction Materials	341,017	1,106,873	82,610	4,800	67	3	778,071	454,545
Minerals, ores and concentrates	638	483,724	0	0	0	0	42	426,570
Manufactures	658,400	382,372	8,315	0	1,987	190	1,036,888	184,111
Livestock, animal-made products	18,092	2,620	0	0	34	0	12,061	3,156

Source: Instat

This table can also be showed by commodities disaggregated:

Table II - 29. Foreign trade by volume of commodities, in Tons

General classification	Road		Rail		Air		Sea	
	Import	Export	Import	Export	Import	Export	Import	Export
Vegetables, fruits	76,553	204,740	0	0	8	46	62,697	10,825
Flour, wheat, corn, etc.	133,636	471	0	0	0	0	206,333	0
Prepared foods, beverages, tobacco	310,934	49,314	15,698	0	62	69	349,469	14,275
Mineral products, cement	97,054	1,351,262	0	4,800	1	0	410,706	785,742
Chemical industry products	112,594	53,995	1,648	0	683	4	191,537	10,252
Plastic, rubber and related products	58,310	13,891	14	0	67	5	82,741	8,411
Leather and related products	1,279	2,618	0	0	31	0	11,860	3,059
Wood and wood-made products	162,295	33,648	6,607	0	15	8	121,350	57,844

General classification	Road		Rail		Air		Sea	
	Import	Export	Import	Export	Import	Export	Import	Export
Paper and paper-made articles	41,750	20,282	456	0	86	58	64,265	12,940
Textile and textile articles	30,456	7,024	13	0	138	63	64,136	23,965
Footwear	5,133	4,325	0	0	42	14	15,423	26,193
Stone-made articles, plaster, ceramics, glass	147,631	227,829	9	0	14	6	387,493	24,320
Pearls, precious stones, precious metals	19	0	0	0	4	1	47	91
Metals and related articles	241,571	239,794	82,894	0	66	3	366,941	95,576
Mechanical and electrical equipment	48,735	12,033	0	0	401	18	76,190	14,523
Vehicles	32,014	3,353	0	0	49	0	83,239	3,322
Fuel, LPG, etc.	24,661	492,207	12,352	0	340	11,999	1,598,295	1,185,769
Other	85,162	9,941	107	0	486	15	62,776	3,542
TOTAL	1,609,787	2,726,727	119,798	4,800	2,490	12,310	4,155,499	2,280,650

Source: Instat

Given these volumes, the internal consumption and production can be calculated, as well as the imports and exports.

Table II - 30. Internal production and consumption. Import and Export

General classification	Internal production	Internal consumption	Import	Export
Agriculture Products and Fertilizers	1,637,284	2,527,964	1,136,815	262,378
Beverages	467,968	605,445	160,369	23,170
Oil and derivates	2,069,025	2,014,697	1,623,296	1,689,975
Construction Materials	6,984,806	6,620,351	1,119,156	1,561,421
Minerals, ores and concentrates	1,144,131	234,517	679	910,294
Manufactures	0 (*)	1,138,916	1,697,274	566,673
Livestock, animal-made products	1,324,309	1,348,720	30,188	5,776

(*) At this point, information about internal production of "Manufactures" is missing
Source: Instat

Again, this information is also shown disaggregated:

Table II - 31. Internal production and consumption. Import and Export disaggregated

General classification	Internal production	Internal consumption	Import	Export
Vegetables, fruits	1,637,284	1,560,930.63	139,256.69	215,610.06
Flour, wheat, corn, etc.			339,969.3	470.82
Prepared foods, beverages, tobacco	467,968	1,080,473.67	660,465.11	63,657.49
Mineral products, cement	3,694,162	2,060,120.37	507,761.83	2,137,003.46
Chemical industry products			304,813.89	64,251.72
Plastic, rubber and related products			141,117.84	22,307.16
Leather and related products			13,170.2	5,677.79
Wood and wood-made products			283,659.94	91,500.86
Paper and paper-made articles			106,101.31	33,279.57
Textile and textile articles			94,728.75	31,053.3

General classification	Internal production	Internal consumption	Import	Export
Footwear			20,597.74	30,532.24
Stone-made articles, plaster, ceramics, glass	4,434,806	4,717,797.23	535,137.34	252,155.45
Pearls, precious stones, precious metals			69,78	92,32
Metals and related articles			608,578.08	335,372.49
Mechanical and electrical equipment			125,326.93	26,573.49
Vehicles			115,302.04	6,675.35
Fuel, LPG, etc.	2,069,025	2,014,697.49	1,623,295.8	1,689,974.87
Other	1,324,309	1,459,341.45	148,424.35	13,498.54
TOTAL	13,627,554	12,893,360.84	5,767,776.91	5,019,686.98

Source: Instat

2.3.2.2. Trade by value of commodities

The main commodities imported have increased their demand in the past years, being the *machineries, equipment and spare parts* the ones with greater increase. Nevertheless, *minerals, fuels and electricity* imports has suffered a big reduction, although the exports have also been heavily reduced, which indicates an internal adjustment in the balance between supply and demand.

Table II - 32. Main commodities imported in millions of Leks between 2013 and 2017

Import CIF	2013	2014	2015	2016	2017
Total	517,378	552,281	544,616	579,248	626,186
Food, beverages, tobacco	93,424	93,971	96,897	100,365	106,738
Minerals, fuels, electricity	92,657	90,225	60,164	49,842	65,963
Chemical and plastic products	68,258	72,921	74,926	80,008	86,887
Leather and leather manufactures	11,395	14,320	15,916	17,378	18,983
Wood manufactures and articles of paper	20,300	22,922	21,736	23,357	23,692
Textile and footwear	54,130	63,004	69,300	79,971	87,123
Construction materials and metals	63,323	70,805	67,541	76,002	76,624
Machineries, equipments and spare parts	98,517	105,692	117,291	130,953	134,060
Others	15,374	18,421	20,846	21,372	26,117

Source: Instat

The past lustrum has seen a significant change in export weights, with large decrease in *Minerals and fuels* (although balanced with imports) and a 70% growth in the *textile and footwear* subsector. The rest of subsectors remain under similar paths, with steady increments, with the increase of *Construction materials and metals* and *Food, beverages and tobacco* standing out.

Table II - 33. Main commodities exported in millions of Leks between 2013 and 2017

Export FOB	2013	2014	2015	2016	2017
Total	246,397	255,759	243,183	243,497	272,988
Food, beverages, tobacco	14,651	16,747	21,066	25,347	30,081
Minerals, fuels, electricity	99,418	85,885	64,505	46,563	43,088
Chemical and plastic products	2,887	3,394	3,961	4,358	4,732
Leather and leather manufactures	3,195	3,076	2,897	2,596	2,966
Wood manufactures and articles of paper	8,000	9,181	8,336	7,764	8,309
Textile and footwear	69,374	85,936	90,091	106,608	117,389
Construction materials and metals	36,191	37,103	35,280	31,891	43,802
Machineries, equipments and spare parts	8,246	9,235	10,789	11,272	15,079
Others	4,436	5,204	6,257	7,098	7,543

Source: Instat

The following table shows the difference between exports and imports in the main commodities groups, with the bigger imbalance, in the *machineries, equipments and spare parts*, getting even bigger. The *textile and footwear* subsector remains as the only one with bigger volumes of exports, even though the *minerals, fuels and electricity* showed back and forth tendencies during the 2013-2017 period.

Table II - 34. Trade balance of main commodities, in millions of Leks between 2013 and 2017

Trade balance (Exp - Imp.)	2013	2014	2015	2016	2017
Total	-270,981	-296,522	-301,433	-335,751	-353,198
Food, beverages, tobacco	-78,773	-77,225	-75,830	-75,018	-76,657
Minerals, fuels, electricity	6,761	-4,341	4,341	-3,279	-22,875
Chemical and plastic products	-65,370	-69,527	-70,965	-75,650	-82,156
Leather and leather manufactures	-8,200	-11,243	-13,018	-14,782	-16,017
Wood manufactures and articles of paper	-12,300	-13,741	-13,400	-15,592	-15,383
Textile and footwear	15,244	22,932	20,791	26,637	30,266
Construction materials and metals	-27,133	-33,703	-32,261	-44,111	-32,822
Machineries, equipments and spare parts	-90,271	-96,457	-106,502	-119,681	-118,981
Others	-10,938	-13,218	-14,589	-14,274	-18,573

Source: Instat

2.3.2.3. Trade by Border Cross Points

Foreign trade by border cross points is shown in the following table.

Table II - 35. Foreign Trade by Border Cross Points, in Tons

No.	Type BCP	Exit customs	Entry customs
1	Bajze	4,800	119,798
2	Bllade	4,291	12,503
3	Durres port	1,204,523	2,413,729
4	Gorice	734	5,113
5	Hani i Hotit	498,638	398,773
6	Kakavije	69,015	178,253
7	Kapshtice	66,742	304,565
8	Lezha, Shengjin port	15,107	232,621
9	Morine	1,467,170	343,097
10	Morine-Tropoje		34
11	Muriqan		7,994
12	Qafe Bote	2,838	10,406
13	Qafe Prush	39,587	18
14	Qafe Thane	575,839	339,639
15	Rinas, Airport TIA	12,310	2,490
16	Saranda Port	14,301	16,068
17	Tirana	0	0
18	Tre Urat	1,872	1,648
19	Tushemisht		32
20	Vermosh		
21	Vlora Port	1,046,718	115,652
	Total	**5,024,487**	**4,502,434**

Source: Instat

Information about external flows than travel through the Albanian territory in their itinerary is also important to collect. A brief analysis of this data shows the biggest share coming from the relation between the Port of Durres and the Morine border cross.

Table II - 36. External flows through Albania, in Tons

	Bllada	Han i Hotit	Kakavia	Kapshtica	Morine	Morine-Tropoje	Port of Durres	Port of Saranda	Port of Shengjin	Port of Vlora	Qafe Bota	Qafe Thana	Rinas	Grand Total
Bllada		119.8			24.9									144.8
Han i Hotit			1,233.4	1,729.5	8,037.0		5,311.4		6.7	12.3	1.7	9,746.4		26,078.4
Kakavia		11,421			343.2		843.8			16.9		1.5		12,626.4
Kapshtica		11,458.5			5,186.3		112.1					114.8		16,871.7
Morine	1.4	13,217	22.7	118.3	16,084.5	1.5	184,645.1		289.3	1,967.9		10.1	2.4	216,360.0
Muriqan	1.7		11.1	13.5	480.8		41.6		7.3	12.7		30.1		598.8
Port of Durres	12.7	32,871.2	89.5	1,236.6	718,151.0		1.2	8,943.8	5.0	316.7		60,570.5	0.1	822,198.2
Port of Shengjin		451.1			0.3							999.1		1,450.4
Port of Vlora		6.4	772.5	126.4	9,237.6		46.0					2,261.6		12,450.6
Qafe Bota					33.1									33.1
Qafe Thana		26,508.5			56.6		25,824.9			11.4				52,401.5
Rinas		0,0					1.1	0.3		1.0				2.4
TOTAL	15.8	96,053.6	2,129.2	3,224.3	757,635.4	1.5	216,827.1	8,944.1	308.2	2,338.8	1.7	73,734.1	2.5	1,161,216.3

3. TRAFFIC SURVEY CAMPAIGN

3.1. EXISTING SURVEYS

According to the IoT, traffic surveys in the national road network have been realized 3 times since 2004, respectively from:

- Louis Berger (2004), for the Albanian National Transport Plan framework implementation.
- Institute of Transport (2005) for the "National Traffic Plan Draft" study, funded by the Ministry of Transport.
- Louis Berger (2009) for the Albanian National Transport Plan 1st Five-Year Review framework.

Additionally, ARA carried out traffic measurements during 2017, divided in 3 phases with each phase undertaking 17, 23 and 18 traffic counts, respectively. This information has been used by the Consultant to analyze the evolution of traffic volumes in the main Albanian corridors. The following table shows the different OD segments counted in the 2017 ARA traffic campaign, divided by the 3 phases undertaken:

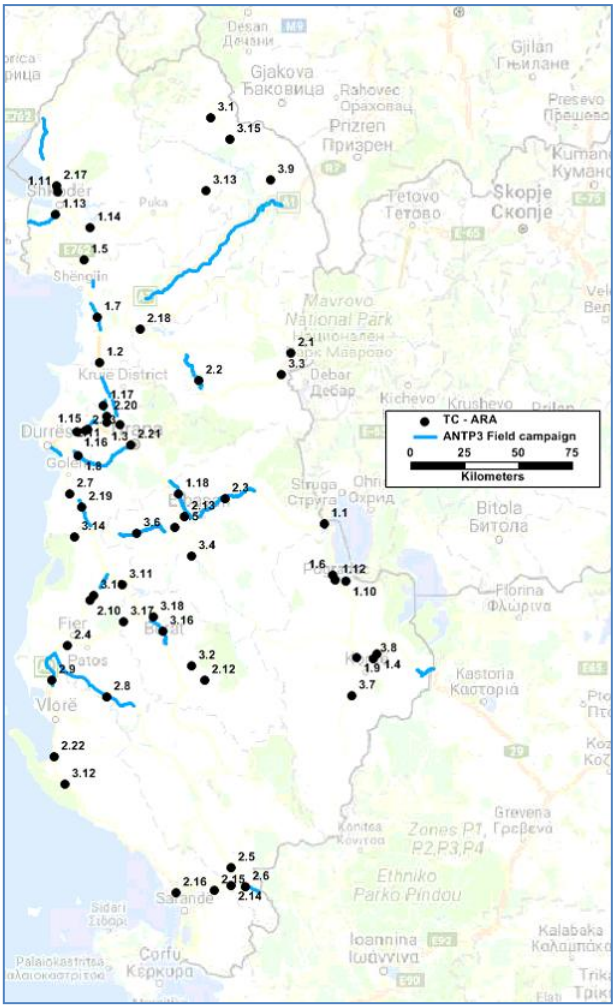
Table II - 37. ARA traffic counts - 2017

Code	From	To	Categories	ANTP3 correlation	days	Code	From	To	Categories	ANTP3 correlation	days
1.1	Dogana	Qafe Thane	15	23	9	2.13	Rrotondo Bradash	Rrotondo Lulet	15	-	6
1.2	Fushe Kruje	Milot	9	1	29	2.14	Saranda	Jergucat	15	-	7
1.3	Kamez	Fushe Kruje	9	15	6	2.15	Saranda	Muzine	15	-	14
1.4	Korça	Kapshtice	15	10	8	2.16	Saranda	Shen Vasil	15	-	14
1.5	Lezha	Shkoder	15	13	4	2.17	Shkoder	Koplik	8	-	10
1.6	Lin	Pogradec	15	-	8	2.18	Skuraj	Burrel	15	-	4
1.7	Milot	Lezha	9	14	26	2.19	Kavaje Station	Rrogozhina	8	4	10
1.8	Plepa	Ndroq	15	-	7	2.20	Tirana	Rinas njeri sens	15	-	7
1.9	Pogradec	Korça	15	-	8	2.21	Unaza	Elbasan	15	-	9
1.10	Pogradec	Tushemisht	15	-	10	2.22	Vlora	Orikum	15	-	7
1.11	Shkoder	Koplik	9	-	7	2.23	Vora	Skuth (Durres)	9	-	8
1.12	Rruga Unaza	Rruga Unaza	15	-	9	3.1	Bajram Curri	Morine	15	-	9
1.13	Ura e Bunes	Ura e Bunes	9	-	7	3.2	Berat	Polican	15	-	12
1.14	Vau i Dejes	Mjede	15	-	10	3.3	Bulqize	Maqellare	15	-	12
1.15	Vora	Durres	9	-	33	3.4	Cerrik	Gramsh	15	-	8
1.16	Tirana	Durres	9	2	11	3.5	Elbasan	Cerrik	15	-	8
1.17	Vora	Fushe Kruje	9	16	29	3.6	Elbasan	Rrogozhina	15	20	8
1.18	Tirana	Elbasan	9	7	335	3.7	Korça	Erseke	15	-	8
2.1	Bulqize	Peshkopi	15	-	10	3.8	Korça	Kapshtice	15	10	8
2.2	Burrel	Bulqize	15	11	10	3.9	Kukes	Krume	15	-	7
2.3	Elbasan	Librazhd	8	7	7	3.10	Lushnje	Fier	15	5	9
2.4	Fier	Levan	15	-	3	3.11	Lushnje	Ura Vajgurore	15	-	7
2.5	Gjirokaster	Jergucat	15	-	7	3.12	Orikum	Himare	15	-	12
2.6	Gjirokaster	Kakavije	15	9	6	3.13	Qafe Mali	Bajram Curri	15	-	10
2.7	Shkozet	Plepa	1	17	8	3.14	Rreth rrotullimi	Divjake	15	-	8
2.8	Levan	Tepelena	15	19	6	3.15	Tropoje	Kukes	15	-	9
2.9	Levan	Vlora	15	18	5	3.16	Ura Vajgurore	Berat	15	12	10
2.10	Lushnje	Fier	8	5	9	3.17	Ura Vajgurore	Patos	15	-	9
2.11	Mbikalimi i Kash	Tirana Aeroport	15	-	8	3.18	Ura Vajgurore	Kucove	15	-	6
2.12	Polican	Skrapar	15	-	8						

The column named "ANTP3 correlation" shows, if existing, the point number of the ANTP3 traffic survey campaign that covers the same segment of road. This information was subsequently used to compare results and its evolution through the years.

These traffic counts were included in the GIS database, in order to facilitate its breakdown and correlation with the 2018 ANTP3 survey campaign, as follows:

Figure II - 20. ARA traffic counts - 2017



3.2. THE ANTP3 TRAFFIC SURVEY

The Traffic Survey Plan was designed according to the following characteristics:

- Location and type of counts:

  The amount and location of the count points were closely determined by those included in the ANTP2 and the permanent automatic traffic counts managed by ARA. From these assumptions the objective was double: to add more count points with regard to ANTP2 and to take advantage of the points where automatic traffic counts are operating.

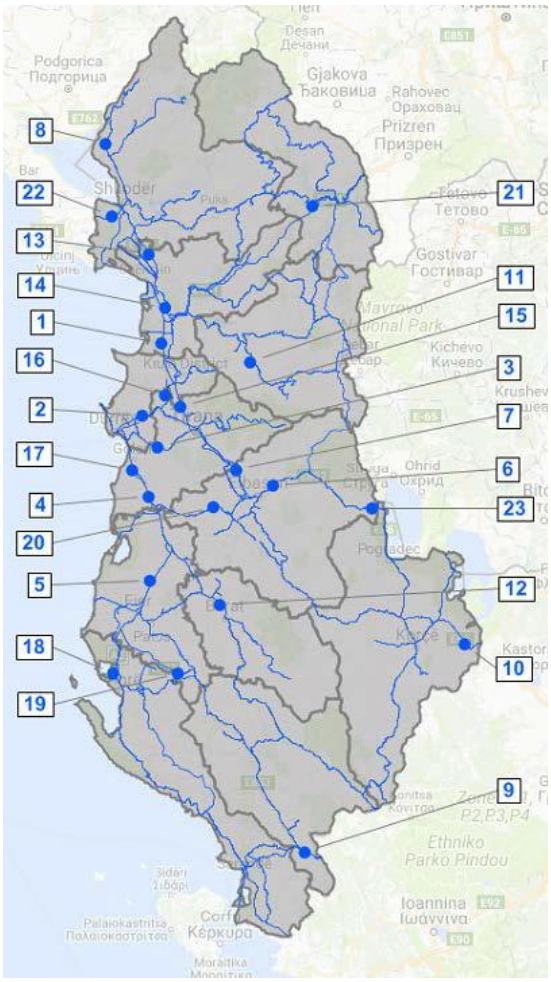
  The Terms of Reference proposed a set of counts to be carried out by the Consultant with specifications of the type of counts:

  - ATC (Automatic Traffic Count): collects classified traffic data in both directions over a period of 7 days, 24 hours/day.

- MTC (Manual Traffic Count): collects traffic data over a period of 2 consecutive days, 12 hours/day, and are necessary to adjust the data collected by the ATC.
- RSI (Road Side Investigation): collects classified traffic data over a period of 2 consecutive days, 12 hours/day, at the same days when MTC took place.

The location of the points is shown in the following figure:

Table II - 38. Traffic Survey Campaign



No	Road segment	ATC	MTC	RSI
1	Fushe Kruje – Milot			
2	Tirana – Durres			
3	Tirana -Durres Plepa			
4	Plepa – Rrogozhina			
5	Lushnje – Fier			
6	Elbasan – Librazhd			
7	Tirana - Elbasan			
8	Shkoder-Hani i Hotit Cross Border			
9	Gjirokaster – Kakavije Cross Border			
10	Korça -Kapshtice Cross Border			
11	Burrel - Klos			
12	Ura Vajgurore – Berat			
13	Lezha – Shkoder			
14	Milot – Lezha			
15	Kamez – Fushe Kruje			
16	Vora – Fushe Kruje			
17	K. Shkozet – Plepa			
18	Levan – Vlora			
19	Levan – Tepelena			
20	Elbasan – Rrogozhina			
21	Milot - Morine			
22	Shkoder Muriqan Cross Border			
23	Perrenjas - Qafe Thane Cross Border			

Source: the Consultant

Proposed in the Terms of Reference

ATC Added by the Consultant since there are not ATC of ARA at these points

MTC Added by the Consultant as necessary to adjust data of ATC counts

Cross Border Point

As stated above, the Consultant added information with regard to the ToR table:

- Location of the 23 points with the aim of helping the understanding of the road network coverage.
- Addition of extra ATC at those points where there are not ATCs of ARA. For this reason the Consultant considered necessary the inclusion of this kind of counts at these points, marked in blue.

- Addition of extra MTC at those points where an adjustment of the ATC was considered necessary. They are marked in brown.
- According to the Terms of Reference statement: "The Consultant needs to have some additional location, close to the border crossings, at least 5 locations, 2 Greece border crossings, 1 with FYROM, 2 with Montenegro". Cross border points are marked in red, whose boundaries are:
  - 8 (Shkoder-Hani i Hotit Cross Border): border with Montenegro.
  - 9 (Gjirokaster – Kakavije Cross Border): border with Greece.
  - 10 (Korça -Kapshtice Cross Border): border with Greece.
  - 22 (Shkoder Muriqan Cross Border): border with Montenegro.
  - 23 (Perrenjas - Qafe Thane Cross Border): border with FYROM.

The other characteristics of the Survey Campaign are:

- Interviews

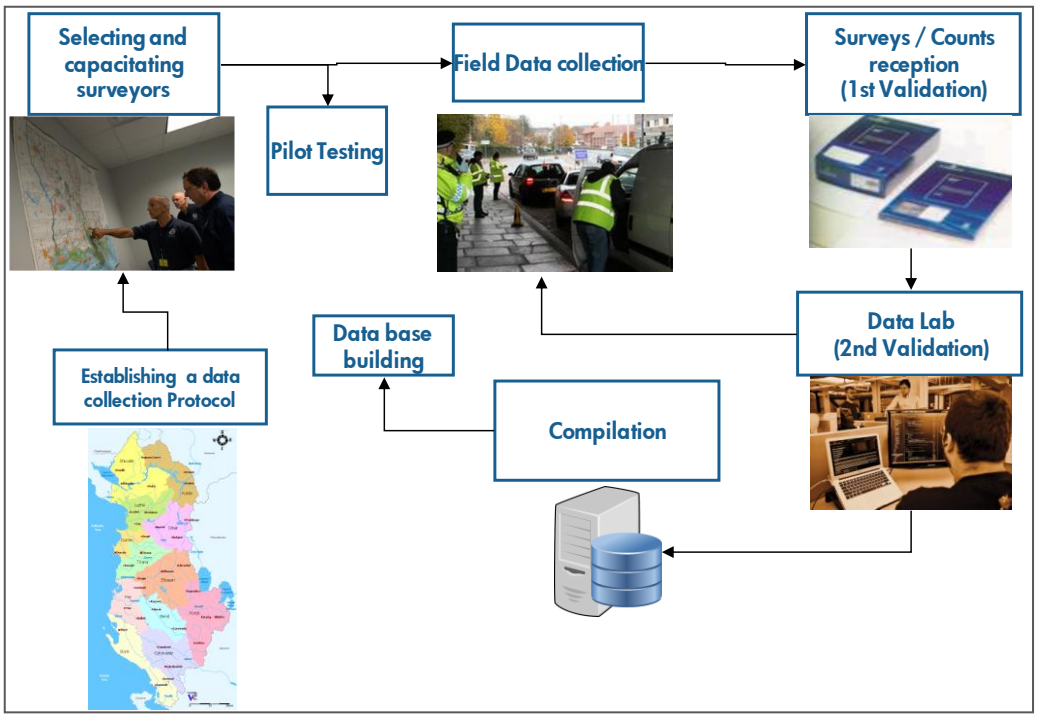
  Additionally to traffic counts, an amount of interviews were carried out at those road segments marked in the main table with 'RSI'. In particular, at points: 1, 2, 4, 5, 6, 7, 8. 9, 10, 11, 12, 15, 18, 19, 21, 22, 23. As stated in the Terms of Reference the amount of interviews will be higher than 35% of total daily traffic to have a representative sample. The results of the campaign are shown in this section.

  To enrich the sample and considering the two dimensions of the ANTP3, different questionnaires were designed for drivers of private cars, buses and freight. Thereby, the further analyses concerning O/D matrixes and the rest of transport characteristics will have an improved quality. Generally, questionnaires contain information regarding: driver information, number of passengers/type and weight of cargo, origin and destination, purpose of trip, frequency of the trip, trip duration, possible modal change and necessary improvement of transport infrastructures. In this particular survey campaign, due to the fact that toll infrastructures have been implemented recently and will continue being implemented in the short and medium time, specific questions regarding willingness to pay for using better infrastructures were included.

- Quality and Management

  Based on previous international experiences in the development and management of traffic survey campaigns, TYPSA has implemented a specific procedure of quality and management which consists of:

  - Selecting and capacitating surveyors: the staff conformation will not consist of a mere selection of workers. After a proper selection, counters and surveyors were trained focusing on the different characteristics of work.
  - Pilot testing: technical proof to check the validity of gathered information and the previous training. The Consultant also proved the validity of previous arrangement to carry out the works: permissions, administrative support. During the survey campaign, collaboration of the Ministry of Interior trough Traffic Police was obtained. Otherwise, it had been impossible to stop vehicles in the roadside. However, in some particular points, Police could not stop all the vehicles requested by the Consultant in order not to create serious congestion problems in the road network.
  - Field data collection: deployment of all the human and material resources to carry out the counts and interviews of the Traffic Survey Plan, according to the agreed schedule and program of Task 1.
  - 1st and 2nd Validation: two validations of data were undertaken. The first one was based on the correct implementation of means and procedures, according to templates and standards. The second one consisted of a statistical validation to check that there were not invalid deviations or illogical data.
  - Compilation and database building: once data was checked, the information was properly compiled for further database building.



- Logistics, health and safety

  Every ground team had their transportation mode and their logistics needs were planned, ground team was supported in every stage of field works by the project management team through the Field Work Coordinator. Besides, every worker was trained in the safety and health standards, not only theoretically but also including precise information about the need materials to work on the field: special jackets with reflective stripes, special ID provided by the public administrations, instructions by the Field Work Coordinator…

- Work Program

  The Traffic Survey Plan was foreseen to be developed over a maximum period of 3 months, including the data processing of them, as stated in the ToR.

  According to the initial Work Programme prepared by the Consultant, the Survey Campaign was going to start on February 2018. However, the starting of the Survey Campaign suffered from some delay due to the following reasons:

  - Request of coordination with the Survey Campaign of another project (Feasibility Study of Adriatic-Ionian Highway project): The Consultant in charge of this project was also performing a survey campaign in similar areas to the campaign proposed. Coordination meetings and contacts took place; however, due to the uncertainty of having results by the dates needed for the Project, and also due to the lack of information of exact locations of counts and surveys, it was decided to perform the Campaign as originally planned and the results will be shared with the other project (and vice versa). As a consequence of that coordination, the approval of the survey campaign was postponed some time.
  - Time needed to coordinate with Traffic Police
  - Bad weather conditions during march and beginning of April

  In any case, the Survey Campaign took place from 24th April to 10th June. The data processing took one additional month, until mid July. Therefore, the total time spent in the Survey Campaign was similar to the total time foreseen in the ToRs.

Manual traffic counts (MTC) and Road Side Interviews (RSI) were carried out in "normal" weekly days (Tuesdays, Wednesdays and Thursdays), to avoid traffic distortion data that occur on Mondays and Fridays. Automatic traffic counts (ATC) took place during complete weeks (7 days).

The program carried out during the execution of the Survey Campaign is included in the following pages.

ROAD SIDE INTERVIEWS

Section	April							May																															June									
	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10
Shkoder - Hani i Hotit																																																
Shkoder - Muriqan																																																
Milot - Morine																																																
Lezhe - Shkoder																																																
Milot - Lezhe																																																
Burrel - Klos																																																
Fushe Kruje - Milot																																																
Kamez - Fushe Kruje																																																
Vore - Fushe Kruje																																																
Tirane - Durres																																																
Tirane - Durres (Ndroq, Plepa)																																																
K/Shkozet - Plepa																																																
Plepa - Rrogozhine																																																
Lushnje - Fier																																																
Gjirokaster - Kakavije																																																
Levan - Tepelene																																																
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Ura Vajgurore - Berat																																																
Tirane - Elbasan																																																
Elbasan - Librazhd																																																
Elbasan - Rrogozhine																																																
Perrenjas - Qafe Thane																																																
Korce - Kapshtice																																																

AUTOMATIC TRAFFIC COUNTS

Section	April							May																															June									
	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10
Shkoder - Hani i Hotit																																															
Shkoder - Muriqan																																															
Milot - Morine																																															
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Burrel - Klos																																															
Fushe Kruje - Milot																																														
Kamez - Fushe Kruje																																														
Vore - Fushe Kruje																																															
Tirane - Durres																																															
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K/Shkozet - Plepa																																															
Plepa - Rrogozhine																																															
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Gjirokaster - Kakavije																																															
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Elbasan - Rrogozhine																																															
Perrenjas - Qafe Thane																																															
Korce - Kapshtice																																															

MANUAL TRAFFIC COUNTS

Section	April							May																																June									
	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10
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Milot - Morine																																																
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Elbasan - Rrogozhine																																																
Perrenjas - Qafe Thane																																																
Korce - Kapshtice																																																

Below, the proposed traffic survey forms used in the traffic survey campaign are shown. For the Road Side Interviews, two separated forms were prepared. One of them was aimed to obtain cargo data form lorries and other freighters and the other one was for passengers and buses of inter-city transit.

Manual Classified Traffic Counts

SECOND FIVE YEARS REVIEW OF THE ALBANIAN NATIONAL TRANSPORT PLAN (ANTP3)
CLASSIFIED TRAFFIC COUNT

PROVINCE: _____ LOCATION: _____
ROAD NO.: _____ DAY OF THE WEEK: _____
POINT NO.: _____ DATE (dd-mm-yy): _____
DIRECTION (N/S/E/W)): _____ SURVEYOR: _____

	TIME	6:00 - 7:00	7:00 - 8:00	8:00 - 9:00	9:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00
MOTORCYCLE and SCOOTER													
PASSENGER CAR Cars, taxis, station wagons, landrovers													
PICK UP, VANS & LIGHT DELIVERY VEHICLE Vanettes, pickups, small vans, medium vans													
TRUCKS Large vans Small trucks (max. 5t.)													
CARS/VANS OR PICKUP WITH TRAILER/CARAVAN													
LIGHT LORRIES 2 axles													
MEDIUM LORRIES Rigid trucks 3 and 4 axles Horse + semi trailer 3 and 4 axles													
HEAVY LORRIES Horse + semi trailer 5, 6 or 7 axles Horse + two semi trailers (any no. Axles) Rigid truck + drawbar trailer (any no. Axles)													
BIG BUS approx. 50-70 seats													
MINI BUS approx. 25-40 seats													
OTHER VEHICLES Tractor, Graders and other vehicles not included in other groups													

Road Side Interviews - Freight

SECOND FIVE YEARS REVIEW OF THE ALBANIAN NATIONAL TRANSPORT PLAN (ANTP3)

ORIGIN DESTINATION SURVEY - FREIGHT TRANSPORT

1. SECTION
☐ 1.1 POINT OF SURVEY
☐ 1.2 DIRECTION (N/S/E/W)

2. SURVEYOR:

3. DATE __/__/

4. FORM No.:

5.-	6.-	7.-	8.-	9.-	10.-	TRIP DATA				15. TRIP FRECUENCY	16. How much money (ALL) would you pay to save an hour of travel in better conditions of safety, comfort, etc.?	17. CARGO TYPE	18. % LOAD			19. CARGO CATEGORY	
No.	TIME	VEHICLE TYPE	No. OF TRAVELLERS	VEH. PROPERTY (1. Company; 2. Driver; 3. Other)	DRIVER'S GENRE (M: Male/ F: Female)	11. ORIGIN	12. Departure hour	13. DESTINATION	14. Arrival hour (estimated)	1. EVERY WORKING DAY 2. TO TIMES A WEEK 3. ONCE A WEEK		1. FARMING PRODUCTS 2. MANUFACTURES 3. CONTAINERS WITH PERISHABLES 4. CONTAINERS WITH IMPERISHABLES 5. DIVERSE CARGO 6. LIQUID BULK 7. SOLID BULK	1. FULL LOADED	2. HALF FULL	3. EMPTY	No.	LEGEND
		1 Vans & light delivery vehicle 2. Small trucks 3 Lorries (2 axles) 4. Lorries (3-4 axles) 5. Lorries (5-7 axles) 6. Horse+2 trailers				Factory, Municipality, Province	(hh:mm)	Factory, Municipality, Province	(hh:mm)	4. OCASIONAL							1 Livestock, animal-made products 2 Vegetables, fruits 3 Flour, wheat, corn, etc. 4 Prepared foods, beverages, tobacco 5 Mineral products, cement 6 Chemical industry products 7 Plastic, rubber and related products 8 Leather and related products 9 Wood and wood-made products 10 Paper and paper-made articles 11 Textile and textile articles 12 Footwear 13 Stone-made articles, plaster, ceramics, glass 14 Pearls, precious stones, precious metals 15 Metals and related articles 16 Mechanical and electrical equipment 17 Vehicles 18 Fuel, LPG, etc. 19 Other (specifiy)
1																	
2																	
3																	
4																	
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18																	
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20																	
21																	

Road Side Interviews - Passengers (Vehicles and buses)

POINT OF SURVEY ☐☐ (1 2) DIRECTION (N/S/E/W) ☐ (3)
DATE ☐☐☐☐ (4 5 6 7) TIME ☐☐☐☐ (8 9 10 11)
SURVEY No. ☐☐☐ (12 13 14) SURVEYOR _____ (15 16)

PRIVATE VEHICLE (CAR)

1 TRIP ORIGIN
CITY/VILLAGE/SETTLEMENT: _____ (17 18 19)
If Tirana City:
Address:_____ (20 21 22)

2 TRIP DESTINATION
CITY/VILLAGE/SETTLEMENT: _____ (23 24 25)
If Tirana City:
Address:_____ (26 27 28)

3 WHICH IS THE PURPOSE OF THE TRIP? (29 / 30)

ORIGIN		DESTINATION
1	HOME	1
2	WORK	2
3	WORK ISSUES	3
4	SCHOOL/UNIVERSITY	4
5	SHOPPING	5
6	MEDICAL	6
7	PERSONAL ISSUES	7
8	LEISURE	8
9	ACCOMPANIMENT	9
0	OTHERS	0

4 HOW MANY TIMES DO YOU MAKE THIS TRIP? (31)
1 Every work-day
2 2-4 times per week
3 Once a week
4 1-3 times per month
5 Less than 1 time per month
6 Occasionally

5 HOW MANY PASSENGERS ARE TRAVELLING? (including the driver)
Number: _____ (32)

6 WHY YOU DID NOT USE PUBLIC TRANSPORT IN THIS TRIP? (33)
1 Car is more confortable
2 Car is faster
3 Car is cheaper
4 Public transport stops are far away from my origin or destination
5 Public transport shedules are not compatible with my trip
6 I need the car during the rest of my journey
7 Other: _____

7 FUEL (34)
1 Gasoline
2 Diesel
3 Hybrid
4 Electric
5 Other:_____

8 VEHICLE TYPE (35)
1 Car
2 Station Wagon
3 Van

9 DEPARTURE TIME (hh:mm) (36)

10 ARRIVAL TIME (estimated) (hh:mm) (37)

11 How much money (ALL) would you pay to save an hour of travel in better conditions of safety, comfort, etc.? (38)

PUBLIC VEHICLE (Bus Driver)

1 NUMBER PLATE

2 VEHICLE TYPE (17)
1 Microbus
2 Bus
3 Other:_____

3 TRANSPORT COMPANY

4 BUS LINE TRIP ORIGIN
CITY/VILLAGE/SETTLEMENT: _____ (18 19 20)
If Tirana City:
Station:_____ (21 22 23)

5 BUS LINE TRIP DESTINATION
CITY/VILLAGE/SETTLEMENT: _____ (24 25 26)
If Tirana City:
Station:_____ (27 28 29)

6 VEHICLE SEATS
Number: _____ (31)

7 PUBLIC TRANSPORT SERVICE TYPE (32)
1 Schedule Service
2 Tourist Service
3 School Service
4 Working Service
5 Social Service
6 Occasional Service
7 Other: _____

8 FUEL (33)
1 Gasoline
2 Diesel
3 Hybrid
4 Electric
5 Other:_____

9 IS THERE ANY PASSENGER ON THE VEHICLE? (34)
1 Yes
2 No
3 Other:_____

10 HOW MANY PASSENGERS ARE THERE ON THE VEHICLE?
Number: _____ (35)

11 HAS THIS SERVICE ANY INTERMEDIATE STOPS (36)
1 Yes
2 No
3 Other:_____

12 DEPARTURE TIME (hh:mm) (37)

13 ARRIVAL TIME (estimated) (hh:mm) (38)

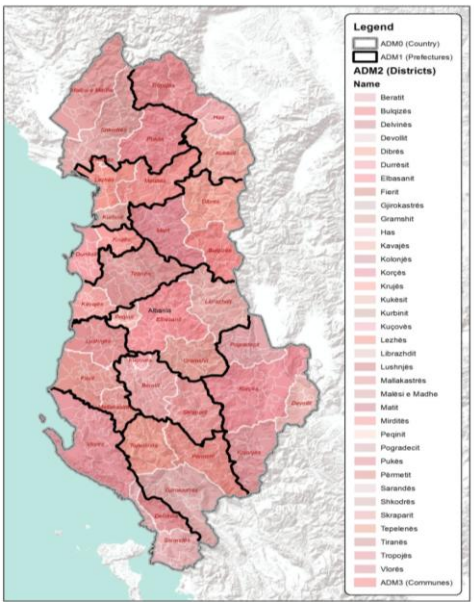
14 How much money (ALL) would you pay to save an hour of travel in better conditions of safety, comfort, etc.? (39)

3.3. TRANSPORT CONCEPTUAL ANALYSIS

Once data collection was ready for all modes (road, rail, maritime and aviation) and related parameters for transport analysis (demography, land use, socio-economic), the Consultant firstly undertook a Transport Conceptual Analysis prior to the modelling process. The data corresponding to road network were obtained from ARA and from the survey campaign developed in this project, and the data corresponding to the other modes of transport were obtained from IoT and other relevant stakeholders.

The objective was to reach findings regarding transport key issues, infrastructures performance and current mobility problems as per the received and collected data.

Figure II - 21. Albanian administrative divisions

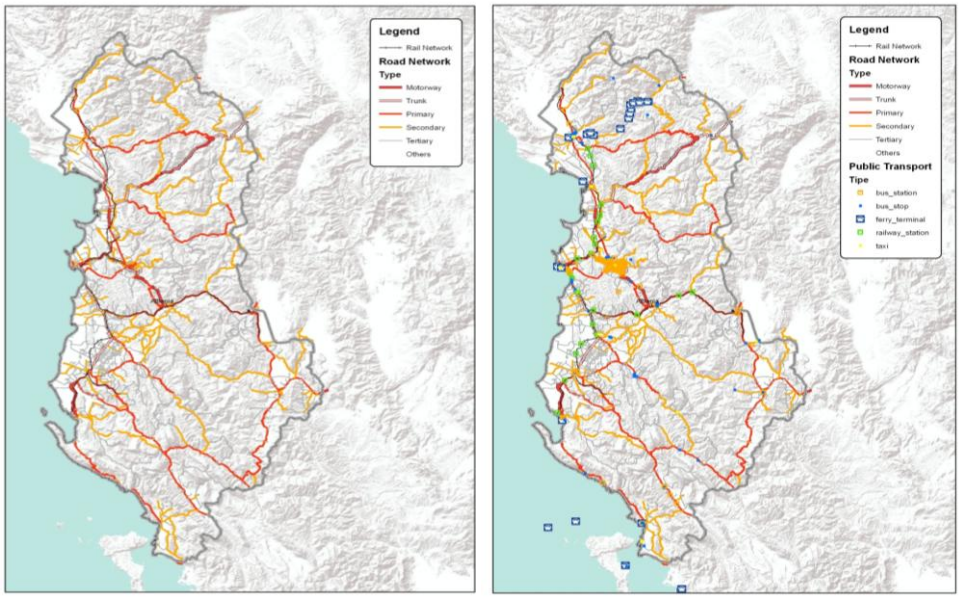


The Transport Conceptual Analysis has been supported by statistical assessment and geo-referenced representations according to the existing infrastructures and the performance of transport over them as per the data collected. The following are illustrative representations of the Conceptual Analysis. The first image shows the actual zoning after the territorial and administrative reform undertaken in 2015, with the new 12 Regions and 61 Municipalities. These two levels will serve as standards for the information provided in further maps.

Some of the information might be organized by the old administrative level of Districts. In this case, the consultant transposed the data to the new administrative format by means of correlations based on the distribution of population between Districts and Municipalities

The next two maps show both the Transport Network and the Transport Infrastructures, such as 2018.

Figure II - 22. Transport network and Infrastructures



The following four images show the distribution of population in Albania, key to identify social imbalances and potential long-term improvement points. It will also be pivotal for the production of the modelling tool.

Figure II - 23. Population by Prefectures (2018) and disaggregated (2011)

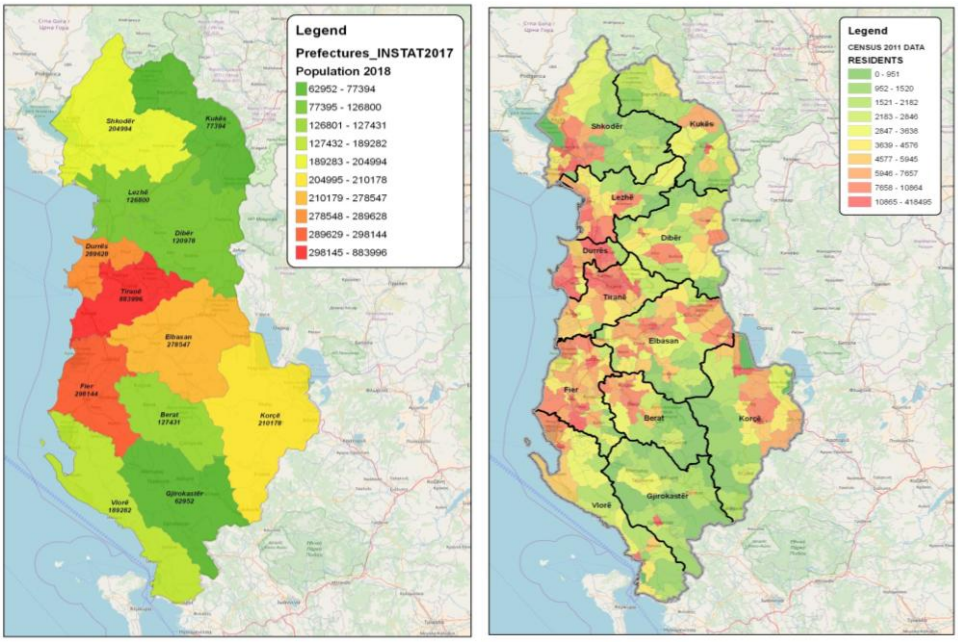
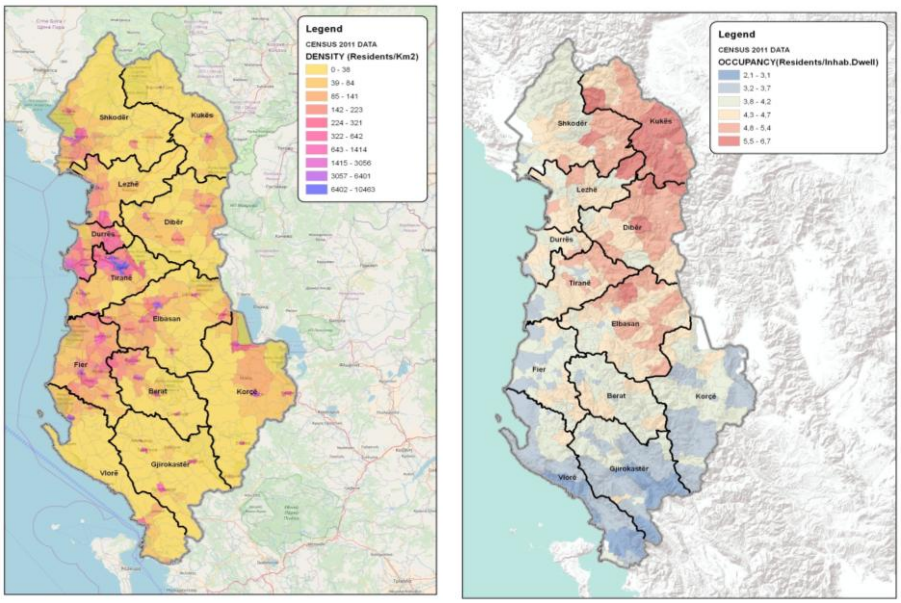
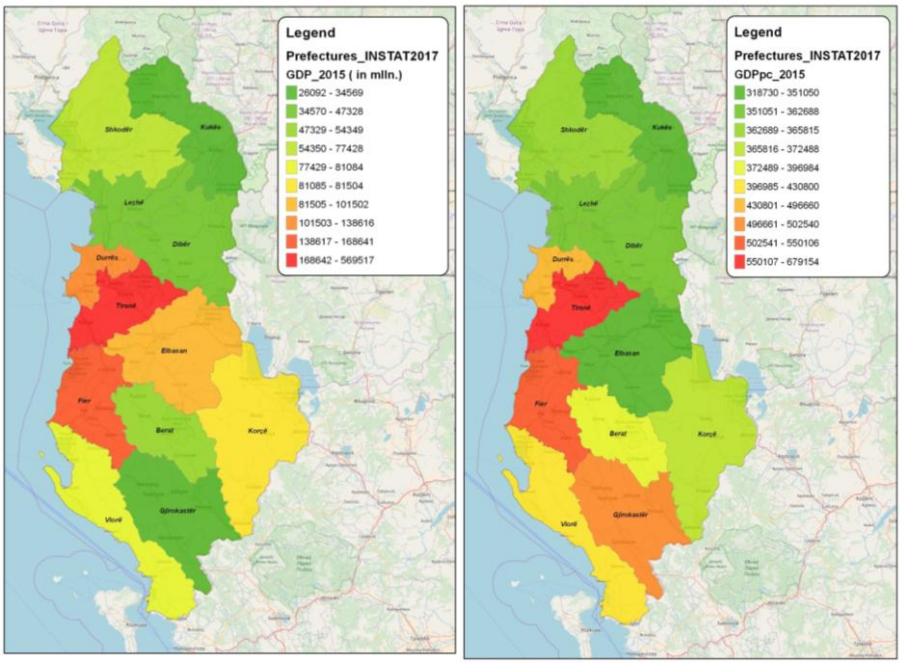


Figure II - 24. Population density and number of inhabitants/house (2011)



As one of the other essential indicators for characterizing the Country, the GDP is shown below in two maps divided by regions: in absolute terms and per capita:

Figure II - 25. GDP by region and per capita (2015)



The transport situation in Albania is reflected trough the next four maps, where the Consultant has collected information about the number of vehicles per District and category, and also a subdivision setting apart the different groups of passenger and goods vehicles

Figure II - 26. Number of vehicles per District (2017) and per category (2016)

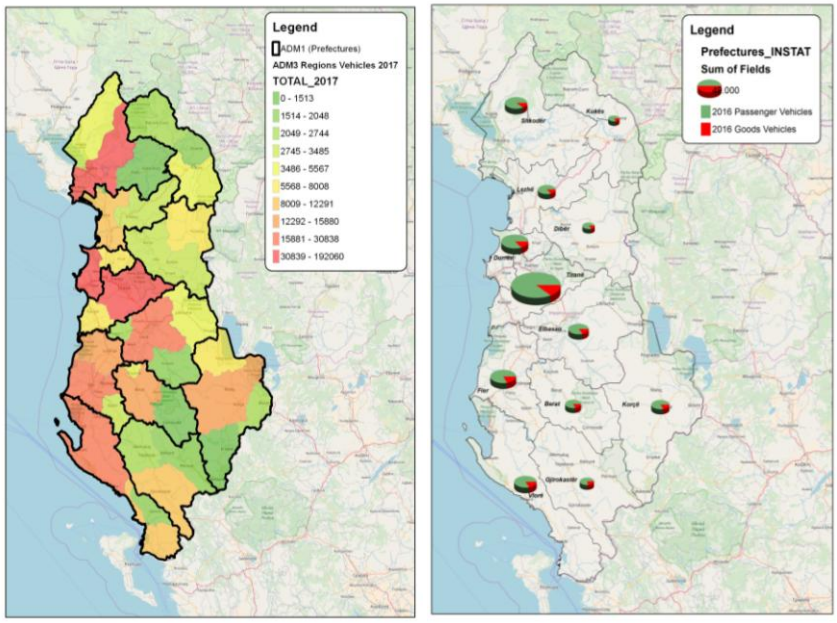
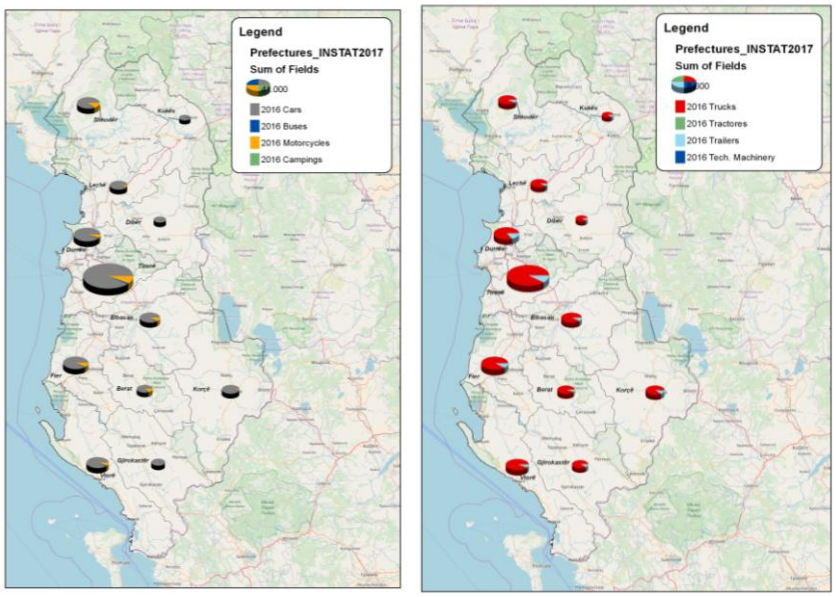


Figure II - 27. Categories of passenger and goods vehicles (2016)



3.4. DATABASE BUILDING

Data was transferred to Microsoft Excel in line with previous works of the IoT and the skills of its staff. After this data transfer, final cleaning/format procedures were performed so that data was ready for analyses and further uses. Data cleaning/format was a key step in the process of database building and had the following characteristics:

- Architecture towards friendly use

  Regardless of the used software, the data base building was based on architecture easy to understand and operate for the technical officers in the IoT.

- Compatibility with analyses tools

  The database building is compatible both with previous versions and further tools for analysis.

- Previous versions of the ANTP

  As said for database architecture, also the building in terms of codes, attributes, organisation… respect the previous version of the ANTP2 as long as its suitability is proved for the new version.

- GIS

  Database arrangement is totally compatible with geographical analytic tools. In this regard, the geo-reference of objects, points and infrastructures was checked in its compatibility with the used software for analyses: ArcGIS. Likewise, compatibility has been proved for the use of online geo-analytical tools like: Google Maps, Carto., as well as web sources including: https://geoportal.asig.gov.al/ and http://webseetis.seetoint.org/seetis.home/

- TransCAD

  Also the compatibility of database has been proved for the modelling. It should be noted that TransCAD is based on a GIS framework and the compatibility with the previous arrangement is close related. Nevertheless, model compatibility has been checked in line with the procedure "Keeping the Transport Model in Mind", already implemented by TYPSA in similar projects.

- Transport network checking

  Prior to data collection a transport network checking was undertaken, but in this case the test was addressed to update and ensure its suitability for the compatibility with GIS and modelling tools.

3.5. TRAFFIC COUNTS RESULTS

Automatic (ATC) and Manual (MTC) traffic counts have been undertaken. The ATC's have covered the whole 24 hour period during a week. The MTC's have covered only 12 hours during two days. In spite of ATC's have better accuracy counting the totality of the vehicles, the distribution by types had to be checked with manual counts. In general terms both counts are similar, but ATC neither distinguish between cargo and passengers vans, nor type of buses. By means of the Manual Counts, passengers vans and cargo vans can be disaggregated. After disaggregation passengers vans have been considered as passenger cars and cargo vans have been considered as trucks.

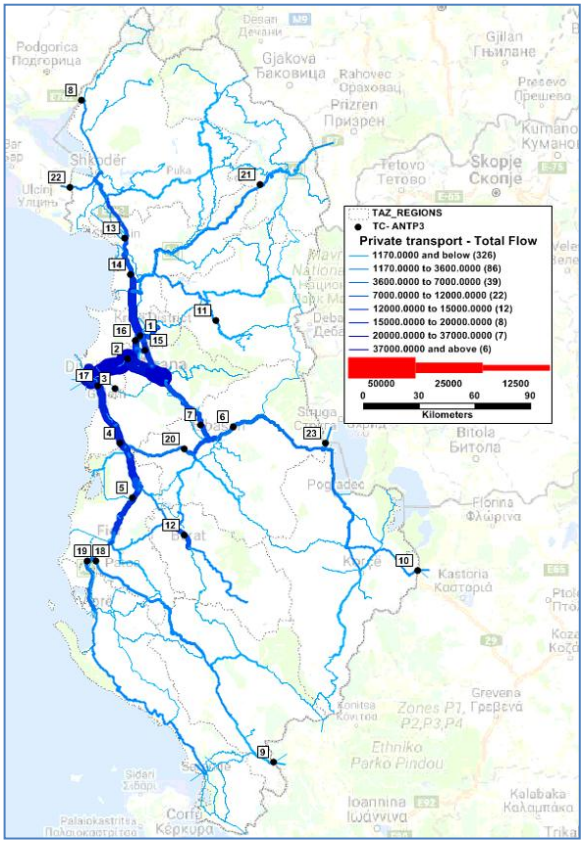
The Automatic counts have registered a number of vehicles unclassified annotated as "others". These unclassified vehicles represent a higher number in ATC than in the manual counts MTC's. In order to correct the differences, the unclassified "others" have been distributed among the rest of the types of vehicles taking into account the % of share. In the next paragraphs the AADT of passenger cars, buses and trucks after correction are shown referred to the locations of the traffic surveys and counts.

3.5.1. Cars

Data collected from the site was fed to the computer and compiled for the base year (2018). The various vehicle types having different sizes and characteristics were converted into a standard unit called Passenger Car Unit (PCU).The final results are shown below, where it stands out the gap between the Tirana-Durres segment and the rest.

Table II - 39. Traffic counts - cars

No	Road segment	IMD-CARS
1	Fushe Kruje – Milot	17072
2	Tirane – Durres	40821
3	Tirane -Durres Plepa	3993
4	Plepa – Rrogozhine	16171
5	Lushnje – Fier	13001
6	Elbasan – Librazhd	5875
7	Tirane - Elbasan	8834
8	Shkoder-Hani i Hotit Cross Border	2580
9	Gjirokaster – Kakavije Cross Border	938
10	Korce -Kapshtice Cross Border	2497
11	Burrel - Klos	1821
12	Ura Vajgurore – Berat	8179
13	Lezhe – Shkoder	7990
14	Milot – Lezhe	10633
15	Kamez – Fushe Kruje	14386
16	Vore – Fushe Kruje	15518
17	K. Shkozet – Plepa	18106
18	Levan – Vlore	5903
19	Levan – Tepelene	3403
20	Elbasan – Rrogozhine	4833
21	Milot - Morine	3292
22	Shkoder Muriqan Cross Border	2169
23	Perrenjas - Qafe Thane Cross Border	1776



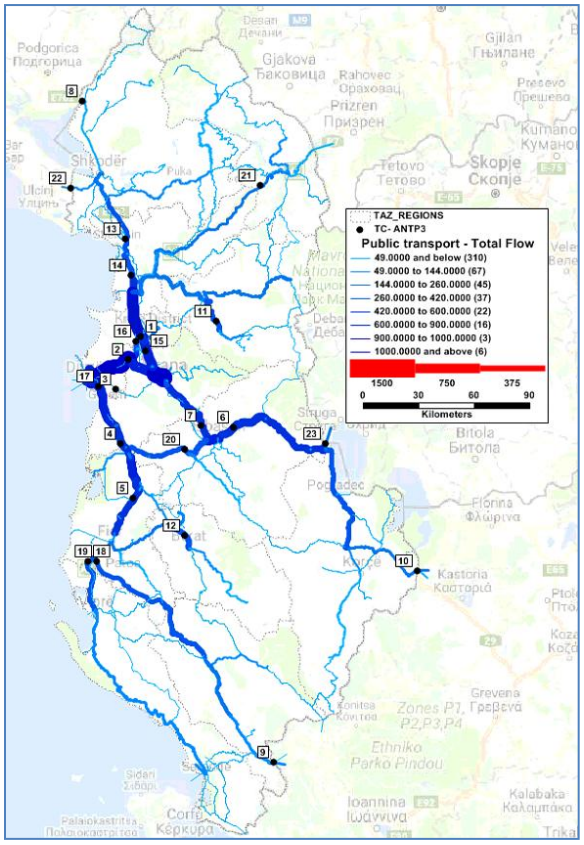
3.5.2. Buses

The next figure shows the elevation of the buses vehicles matrix, with a wider distribution through the Albanian network, compared with private cars. A deeper analysis of the interurban lines situation will be undertaken subsequently, comparing the actual services to the results of the Road Side Interviews (RSI), explained in the next section.

As a preliminary analysis, a mention could be made on the fact that the international connections have a disparity between trips to FYROM or Greece, being heavily supported by bus, and trips to Montenegro and Kosovo, where the public service is less supported.

Table II - 40. Traffic counts - buses

No	Road segment	IMD-BUSES
1	Fushe Kruje – Milot	927
2	Tirane – Durres	1194
3	Tirane -Durres Plepa	91
4	Plepa – Rrogozhine	620
5	Lushnje – Fier	488
6	Elbasan – Librazhd	558
7	Tirane - Elbasan	472
8	Shkoder-Hani i Hotit Cross Border	33
9	Gjirokaster – Kakavije Cross Border	123
10	Korce -Kapshtice Cross Border	273
11	Burrel - Klos	333
12	Ura Vajgurore – Berat	414
13	Lezhe – Shkoder	345
14	Milot – Lezhe	366
15	Kamez – Fushe Kruje	781
16	Vore – Fushe Kruje	426
17	K. Shkozet – Plepa	713
18	Levan – Vlore	357
19	Levan – Tepelene	334
20	Elbasan – Rrogozhine	334
21	Milot - Morine	165
22	Shkoder Muriqan Cross Border	51
23	Perrenjas - Qafe Thane Cross Border	205

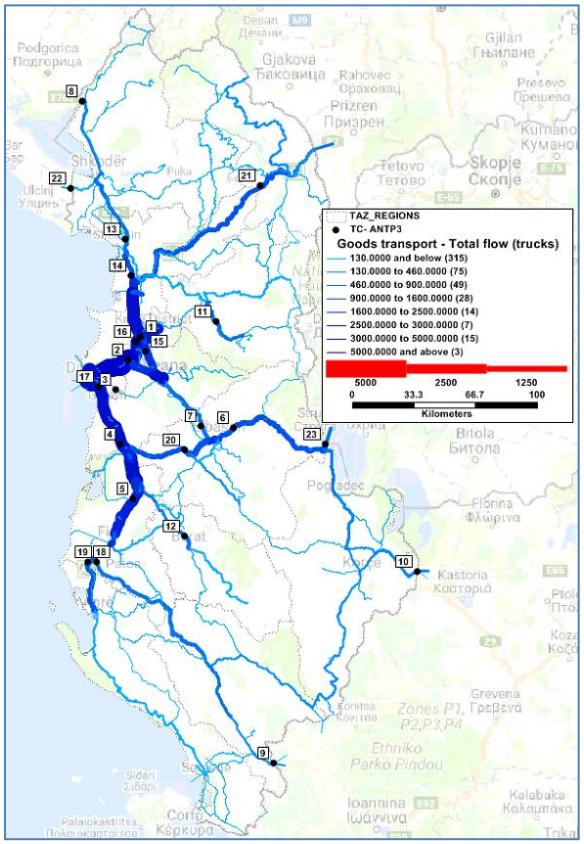


3.5.3. Trucks

The trucks count is shown in the table below; with a large concentration in the west side of the Country motivated by the higher develop of the industrial and business fabric. The findings in the RSI section show an unexpected high incidence in the Elbasan corridor and its connection with FYROM. However, under the denomination "trucks" we also have included small trucks and delivery vans, so that unexpected high volume can be explained for that reason.

Table II - 41. Traffic counts - trucks

No	Road segment	IMD-TRUCKS
1	Fushe Kruje – Milot	2861
2	Tirane – Durres	4407
3	Tirane -Durres Plepa	384
4	Plepa – Rrogozhine	2072
5	Lushnje – Fier	1922
6	Elbasan – Librazhd	814
7	Tirane - Elbasan	341
8	Shkoder-Hani i Hotit Cross Border	319
9	Gjirokaster – Kakavije Cross Border	165
10	Korce -Kapshtice Cross Border	252
11	Burrel - Klos	599
12	Ura Vajgurore – Berat	648
13	Lezhe – Shkoder	646
14	Milot – Lezhe	829
15	Kamez – Fushe Kruje	1445
16	Vore – Fushe Kruje	2381
17	K. Shkozet – Plepa	2925
18	Levan – Vlore	841
19	Levan – Tepelene	575
20	Elbasan – Rrogozhine	1070
21	Milot - Morine	837
22	Shkoder Muriqan Cross Border	189
23	Perrenjas - Qafe Thane Cross Border	645



3.6. SURVEY RESULTS

3.6.1. General results

60,048 transport surveys have been carried out, corresponding 58,541 to private vehicles, 669 to buses and 838 to trucks.

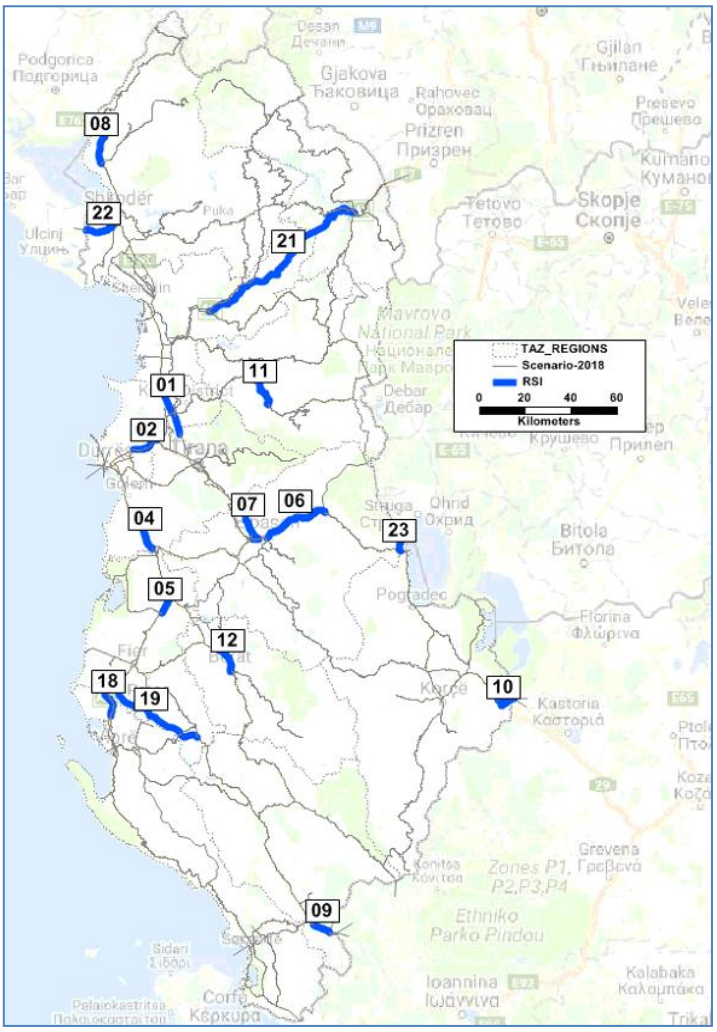
Considering the Average Daily Traffic during these two days (166,390 vehicles), we have surveyed 36.09% of the total traffic, which is slightly higher than the minimum figure required in the ToR. Although we have obtained a quite high number of surveys, we must say that it was not possible to get a higher number due to the reservation of traffic police to stop more vehicles, trying to avoid situations of congestion in the roads.

The number of surveys per each survey point is shown in the following table:

Table II - 42. Number of surveys per road section

Point	Section	Number of Surveys
1	Fushe Kruje - Milot	6,603
2	Tirana - Durres	8,139
4	Plepa - Rrogozhina	6,100
5	Lushnje - Fier	6,183
6	Elbasan - Librazhd	2,860
7	Tirana - Elbasan	3,451
8	Shkoder - Hani I Hotit	2,113
9	Gjirokaster - Kakavije	848
10	Korça - Kapshtice	2,090
11	Burrel - Klos	1,464
12	Ura Vajgurore - Berat	3,196
15	Kamez - Fushe Kruje	6,447
18	Levan - Vlora	3,535
19	Levan - Tepelena	1,513
21	Milot - Morine	2,147
22	Shkoder - Muriqan	2,026
23	Prrenjas - Qafe Thane	1,333

Source: the Consultant



Besides, we have calculated the statistical error obtained for each section and in total. The formula used for the calculation is the one corresponding to calculation of error in random sampling:

$$e = Z\sqrt{\frac{P \times (1-P)}{n} \times \frac{(N-n)}{(N-1)}}$$

Being:

e: error

n: sample size (number of surveys)

P: proportion of answers in a certain category (we use the most unfavourable value: 0.5)
Z: variable Normal standard for a required level of confidence
N: population size (ADT).

The value used for Z is 1.96 that corresponds to level of confidence of 95%.

The results are included in the following table.

Table II - 43. Percentage of error in road surveys per section

Point	Section	Number of Surveys	ADT (*)	Error
11	Burrel - Klos	1,464	2,549	1.7%
6	Elbasan - Librazhd	2,860	6,852	1.4%
1	Fushe Kruje - Milot	6,603	20,948	1.0%
9	Gjirokaster - Kakavije	848	1,070	1.5%
15	Kamez - Fushe Kruje	6,447	15,666	0.9%
10	Korça - Kapshtice	2,090	2,958	1.2%
19	Levan - Tepelena	1,513	3,871	2.0%
18	Levan - Vlora	3,535	6,793	1.1%
5	Lushnje - Fier	6,183	14,188	0.9%
21	Milot - Morine	2,147	3,677	1.4%
4	Plepa - Rrogozhina	6,100	17,997	1.0%
23	Prrenjas - Qafe Thane	1,333	2,429	1.8%
8	Shkoder - Hani I Hotit	2,113	2,805	1.1%
22	Shkoder - Muriqan	2,026	2,314	0.8%
2	Tirana - Durres	8,139	43,871	1.0%
7	Tirana - Elbasan	3,451	9,524	1.3%
12	Ura Vajgurore - Berat	3,196	8,878	1.4%
Total		60,048	166,390	0.3%

Source: the Consultant
ADT corresponding to the two days when surveys were performed.

As can be seen, level of error is extremely low, which indicates the excellent characteristics of the traffic survey developed.

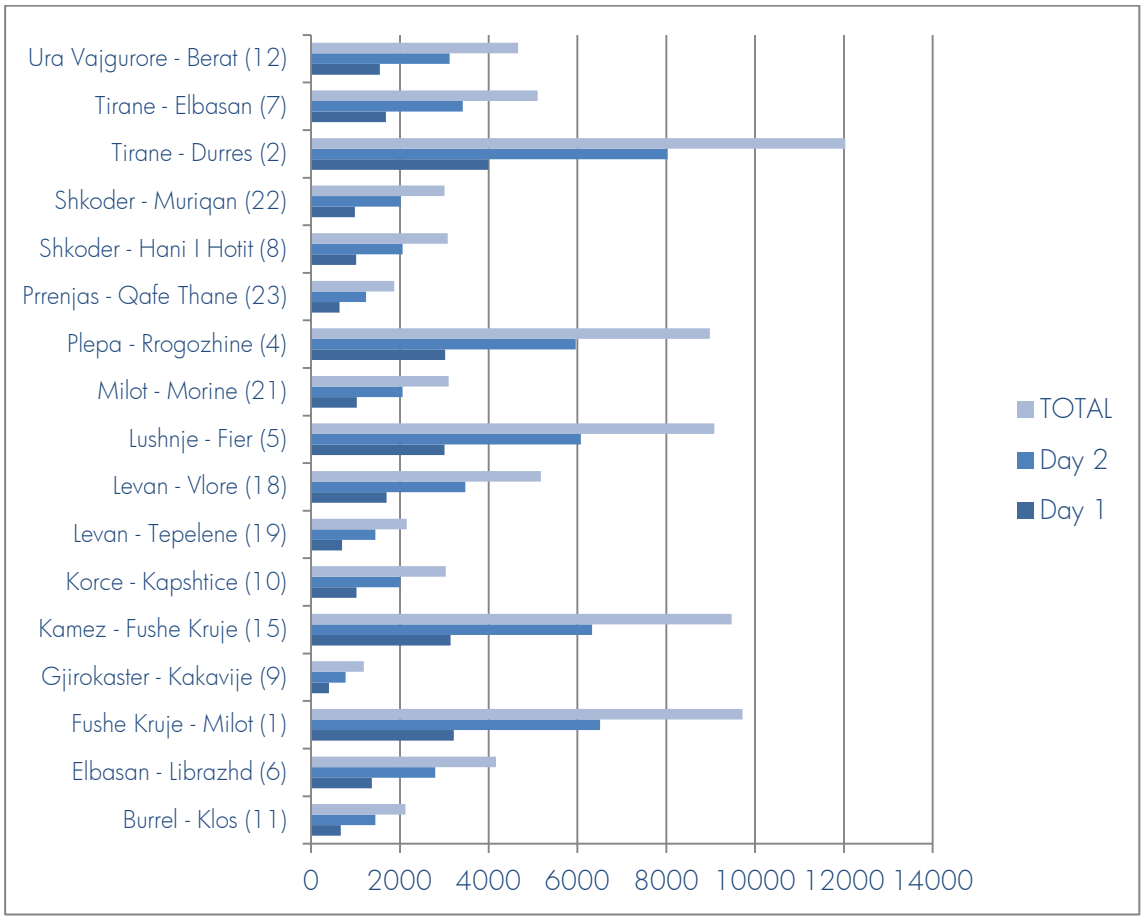
The following chapters show a preliminary analysis of the obtained answers from the survey, differenced by cars, buses and trucks.

3.6.2. Cars

3.6.2.1. Introduction

The total number of private vehicles surveyed was 58,541. The distribution of these vehicles is shown below, where the ordinate axis indicates the segment surveyed and the number corresponding to their ID in the Table II - 42. It can be highlighted the heterogeneity between the number of surveys according to the segment interviewed, adjusting to the ADT of each section.

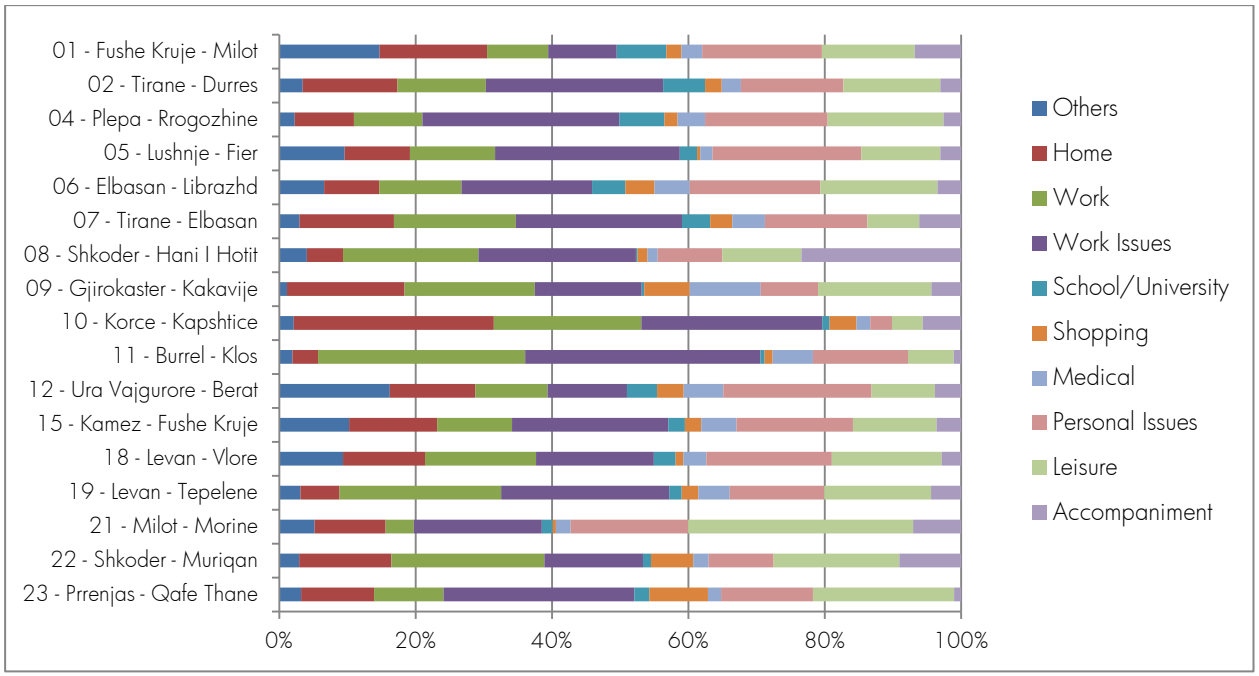
Figure II - 28. Number of RSI surveyed - cars



3.6.2.2. Distribution by trip purpose

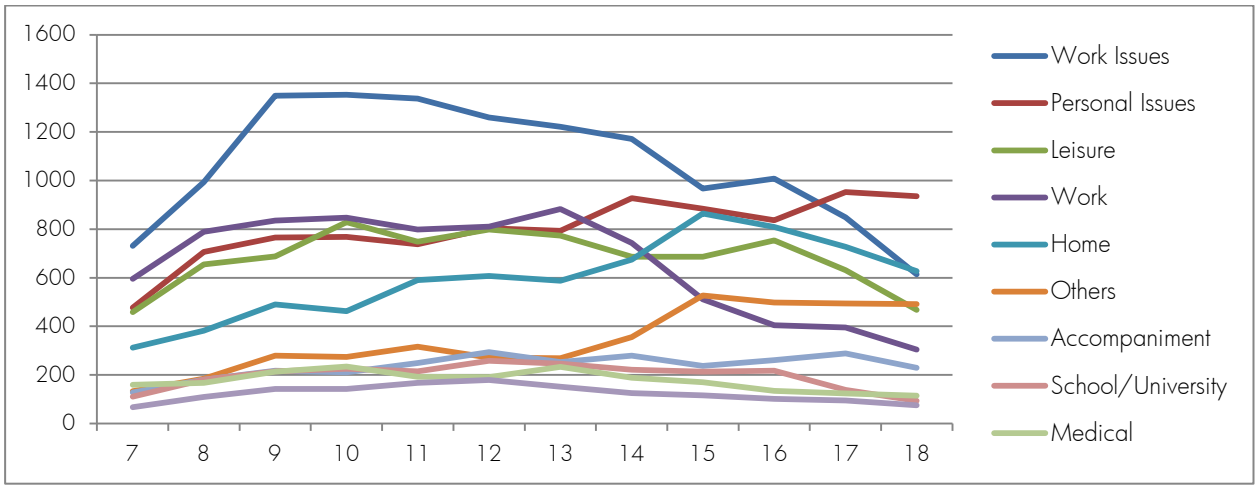
The following figure shows the distribution of vehicles interviewed in each segment divided by their trip purpose. The data will be disaggregated later, due to the complexity of interpretation of a table with this level of information.

Figure II - 29. RSI cars - trip purpose – distribution by surveyed segment



Although the traffic analysis will be done with a matrix of daily trips, it is interesting to check the distribution of trips according to the purpose throughout the day. It highlights how trips for work or for reasons related to work decrease from 14:00, while trips to home and "others" increase after that time. The low level of trips captured for the category "school/university" stands out, indicating a low motorization of these trips, or a captive use of public transport.

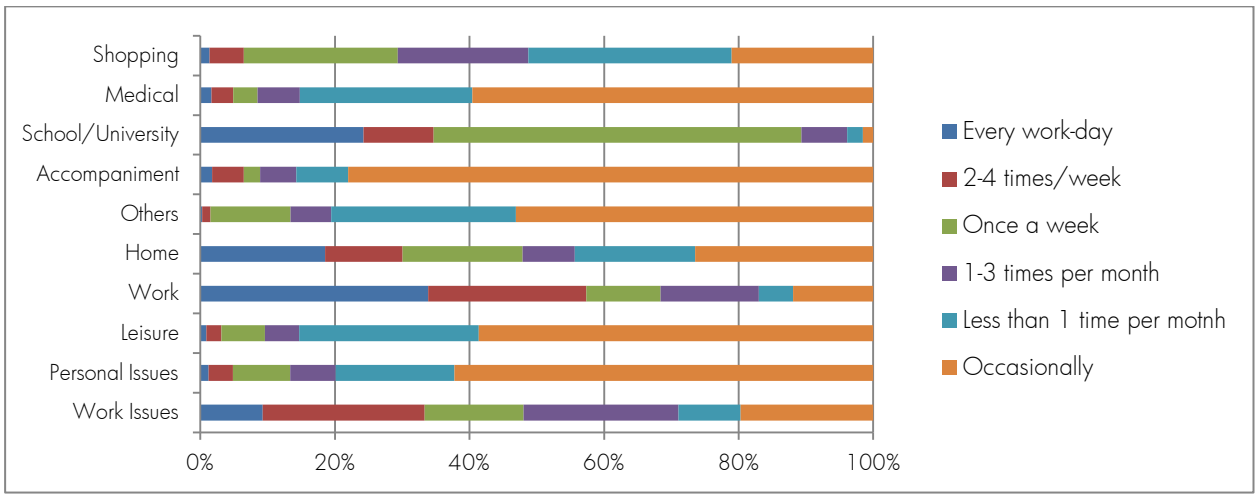
Figure II - 30. RSI cars - trip purpose - hourly distribution



3.6.2.3. Distribution by frequency of the trip

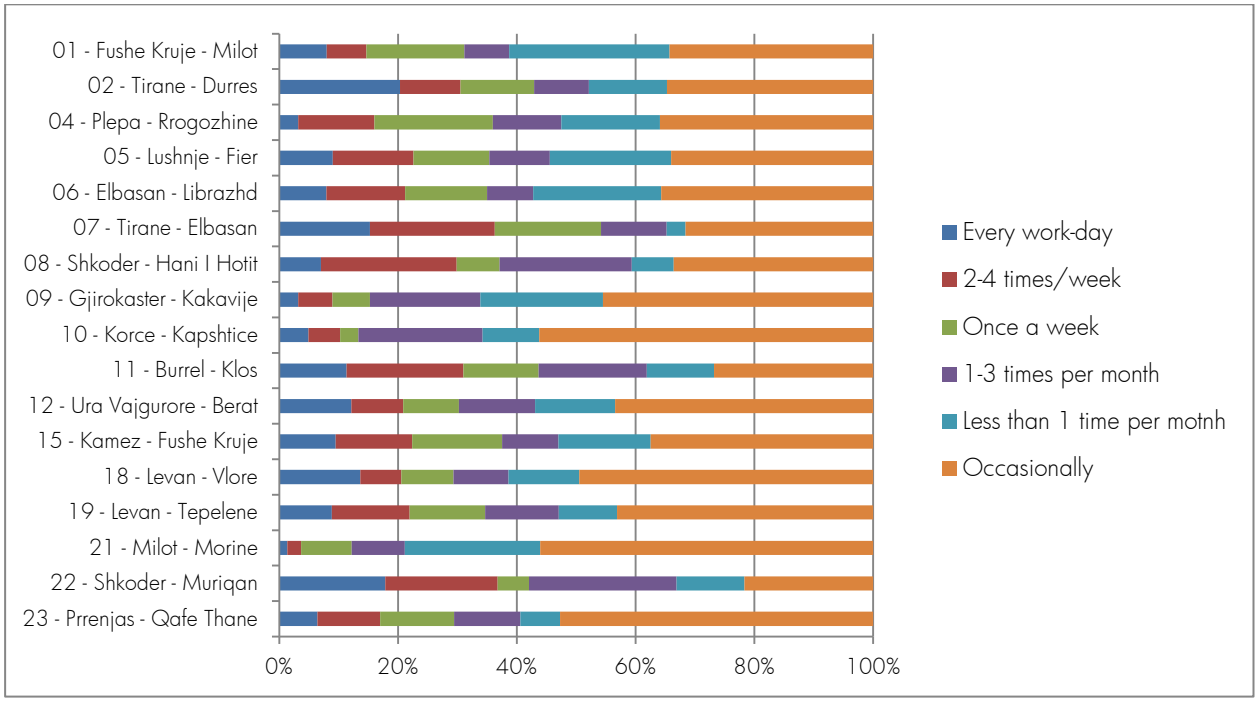
The next question in the interview asked about "*How many times do you make this trip?*" The results have been divided by the purpose of the trip and by segment surveyed. This division responds to the need of understanding both the homogeneity of the traffic in the roads surveyed and the regularity and periodicity of each trip purpose.

Figure II - 31. RSI cars - frequency - by trip purpose



It must be pointed out that the trips were surveyed at interurban roads, so the percentage of commuting journeys is smaller than in a typical tip distribution. Even so, some surveyed segments have an important weight percent, as in the case of segments 2 (Tirana – Durres); 7 (Tirana – Elbasan) or 22 (Shkoder – Muriqan border cross).

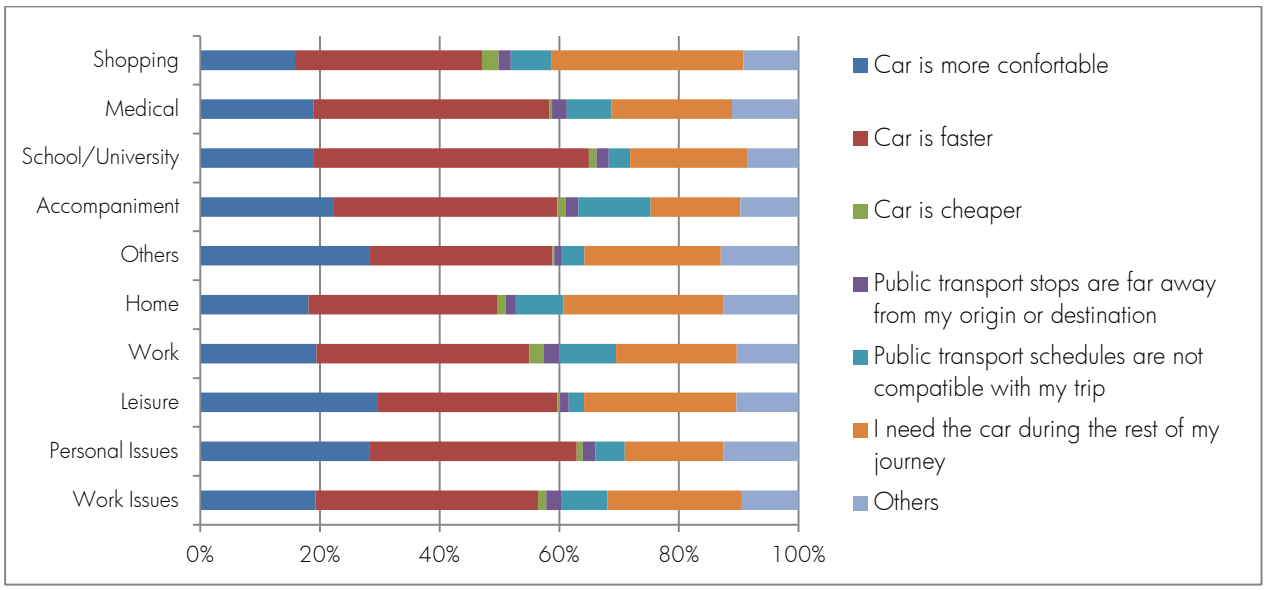
Figure II - 32. RSI cars - frequency - by segment



3.6.2.4. Distribution by private mode selection reasons

The next question is one of the more interesting ones, because it reveals which trips are more likeable to be changed from private to public transport. It also defines the priorities of the passengers depending on the trip purpose. Again, this question is divided by the purpose of the trip and by segment surveyed. Both distributions are key to identify the main reasons of the Albanian population to chose the private car over the public transport, and identify the main opportunities of implementation of new public bus services, recognizing the inequalities in terms of actual services.

Figure II - 33. RSI cars - private mode selection reasons – distribution by trip purpose

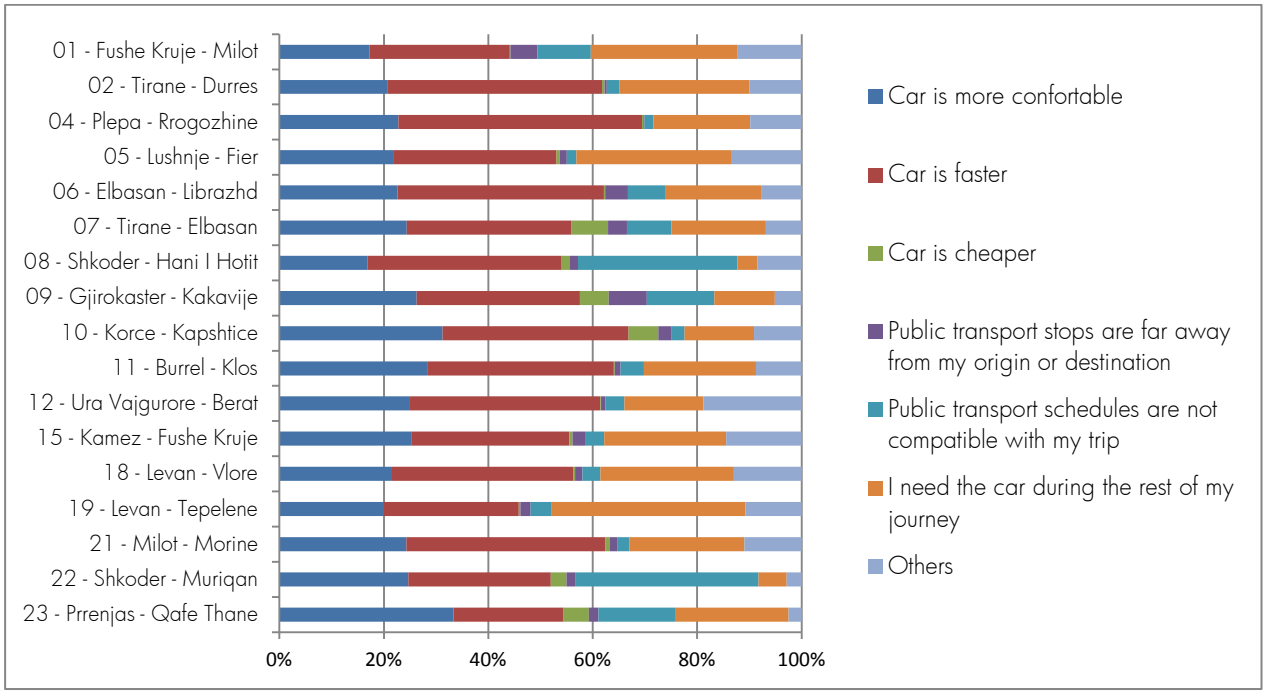


The Figure II - 33 shows how, for home-based and school-based trips, Albanians select the private car for its greater speed. This survey offers the opportunity to identify which trips are not being done in public transport because of its services, by choosing the answers 4 or 5 (stops far away or services schedule). The *Accompaniment* trips are the most suitable to be transferred to the public transport if enhanced. The most immediate conclusion responds to the nature of these trips, where a person who cannot drive (by age, physical limitations, etc.) is driven by another person to their destination.

It also stands out the bigger disposition of the work trips to use the public transport if the schedule was readjusted to their timetable. Obviously, this table shows national records, so a more detailed analysis has to be done in order to identify these opportunities for public transport enhancement.

Keeping that in mind, Figure II - 34 clearly shows how the city of Shkoder has the biggest demand for an enhancement of the public transport services, reflected by segments 8 and 22, located north and south of the city, respectively. Going back to the ATC results, the traffic counts for buses clearly demonstrate how the presence of bus lines in the city of Shkoder is below the national average.

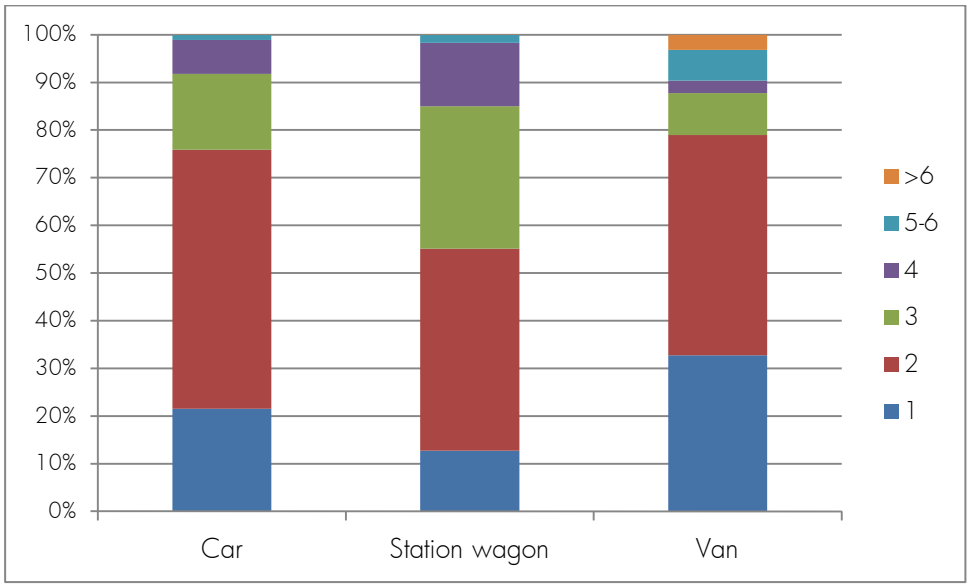
Figure II - 34. RSI cars - private mode selection reasons – distribution by surveyed segment



3.6.2.5. Distribution by car occupancy

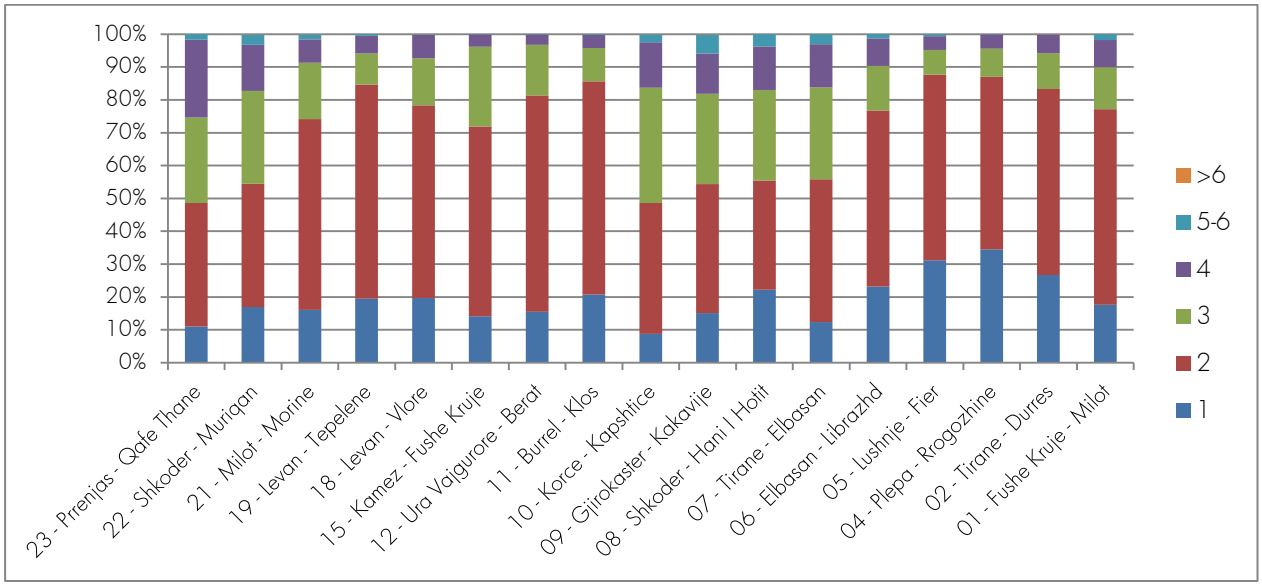
The next figure shows the occupancy of the cars surveyed, divided by type (car, station wagon and van). These rates have to be considered keeping in mind the interurban aspect of the survey, which doesn't represent urban trips and their lower rates.

Figure II - 35. RSI cars - car occupancy – distribution by type of vehicle



The following chart shows the distribution by segment surveyed, showing the biggest occupancy rates in the border crossing points (8, 9, 10, 22 and 23).

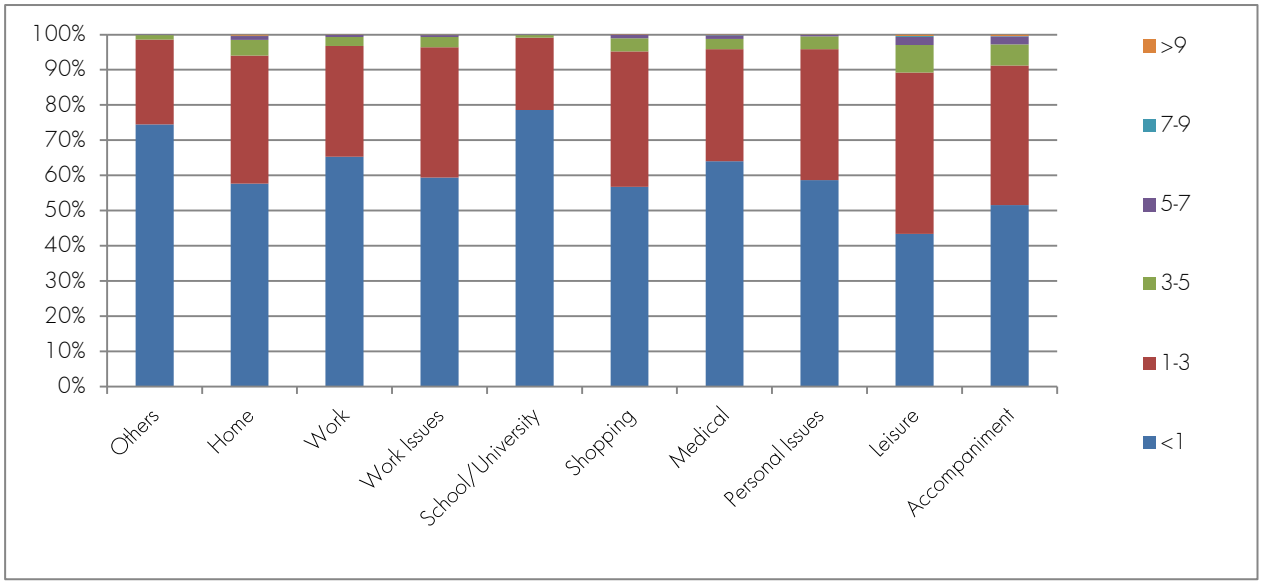
Figure II - 36. RSI cars - car occupancy – distribution by surveyed segment



3.6.2.6. Distribution by stated preferences questions

The survey included a last question regarding the stated preferences of the surveyed passengers, where they could answer to the question *how much money would you pay to save 1 hour in a road with better Safety and Commodity conditions?* This could help to determine the viability of investments in public transport or in highways with toll-based financing.

Figure II - 37. RSI cars - stated preferences - distribution by trip purpose

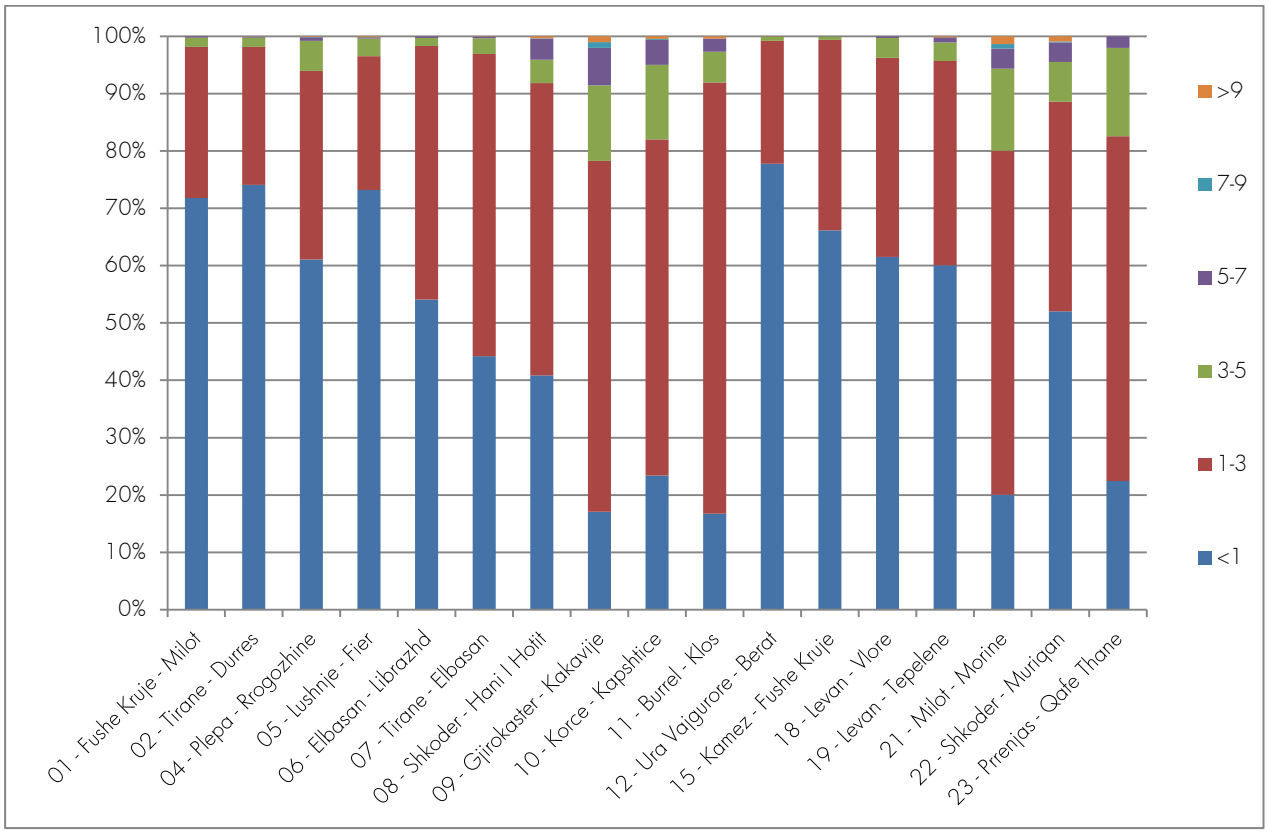


The distribution by trip purpose shows that people who go by car to school or university are the less predisposed to pay more in order to improve their trip. This agrees with the typical student profile, with low incomes and a lower value given to his time. On the other hand, leisure trips are the most eager to increment their transport costs to improve their journey.

When it comes to geographical analysis, results are less homogeneous. The chart shows how southern (9,10) and eastern (21,11,23) zones are willing to pay much more for an improvement in their roads. This has a clear correlation with the current situation of the Albanian network. The western zone has a more developed road

network with better maintenance, while the eastern zone, due to its mountainous orography and lower socioeconomic levels, has fewer highways and well maintained roads. Therefore, the results of the table show these inequalities, opening a way to discuss possible investments in the area.

Figure II - 38. RSI cars - stated preferences - distribution by surveyed segment

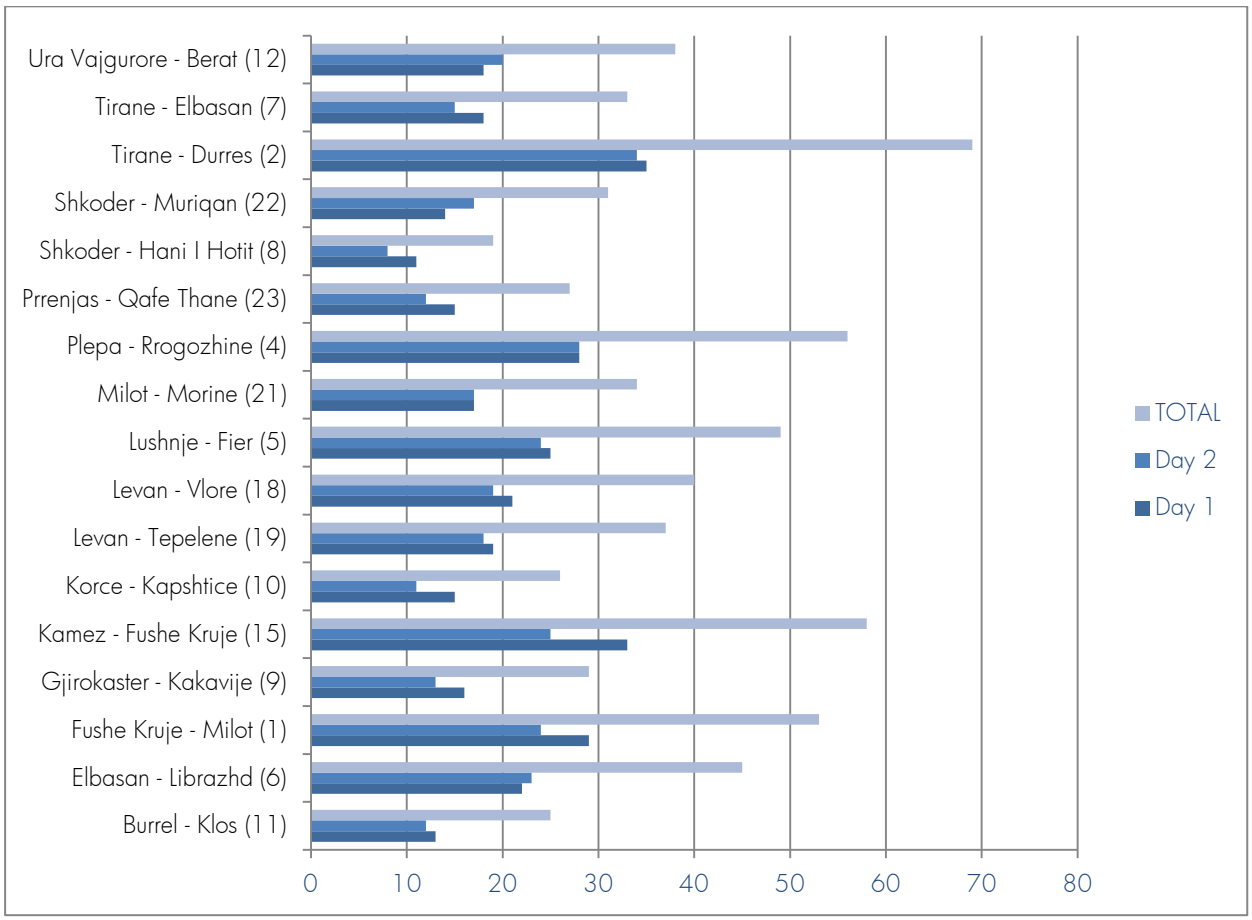


3.6.3. Buses

3.6.3.1. Introduction

The total number of private vehicles surveyed was 669. The distribution of these vehicles is shown below, where the ordinate axis indicates the segment surveyed and the number corresponding to their ID in the Table II - 42.

Figure II - 39. RSI buses – number of surveys



The table below shows the occupancy rate of the vehicles surveyed, divided by microbuses (25 seats) and regular buses (55 seats), being almost all of them on the 80-95% range. The two stations surrounding the Shkoder city (8 and 22) have smaller rates, which correlates heavily with the results commented in section 3.6.2.4. where passengers answered that they would choose the public transport if the timelines were changed and readapted to their daily schedules.

These signs will be studied when analyzing the interurban buses network, carrying out their restructuration keeping in mind the optimization of the existing lines and modifying the routes in those areas where travellers are not captured due to a deficient route design, as might be the case of Shkoder.

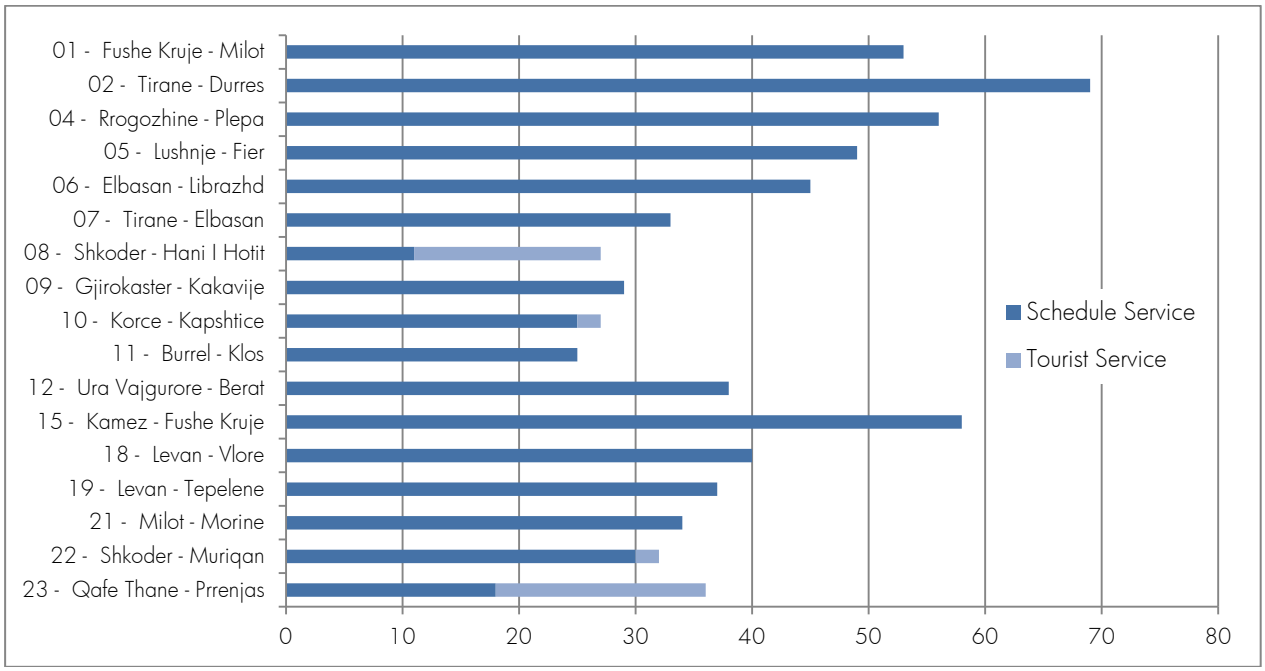
Table II - 44. RSI buses - occupancy rates

Segment	Microbus		Bus		Total	
	Number	Occupancy rate	Number	Occupancy rate	Number	Occupancy rate
01 - Fushe Kruje - Milot	28	96%	25	85%	53	91%
02 - Tirana - Durres	27	98%	42	91%	69	93%
04 - Rrogozhina - Plepa	27	96%	29	88%	56	92%
05 - Lushnje - Fier	23	91%	26	86%	49	88%
06 - Elbasan - Librazhd	20	91%	25	81%	45	85%
07 - Tirana - Elbasan	14	96%	19	86%	33	90%
08 - Shkoder - Hani I Hotit	10	82%	9	69%	19	76%
09 - Gjirokaster - Kakavije			29	68%	29	68%
10 - Korça - Kapshtice			26	68%	26	68%
11 - Burrel - Klos	18	92%	7	82%	25	89%
12 - Ura Vajgurore - Berat	24	94%	14	91%	38	93%
15 - Kamez - Fushe Kruje	29	92%	29	88%	58	90%
18 - Levan - Vlora	20	90%	20	89%	40	89%
19 - Levan - Tepelena	16	94%	21	84%	37	88%
21 - Milot - Morine	17	97%	17	88%	34	93%
22 - Shkoder - Muriqan	1	72%	30	71%	31	71%
23 - Qafe Thane - Prrenjas			27	68%	27	68%

3.6.3.2. Distribution by type of service

The greater percentage of buses surveyed are regular interurban services. Two border crossing points (8, 23) concentrate half of the tourist services, with a smaller representation also in point number 10.

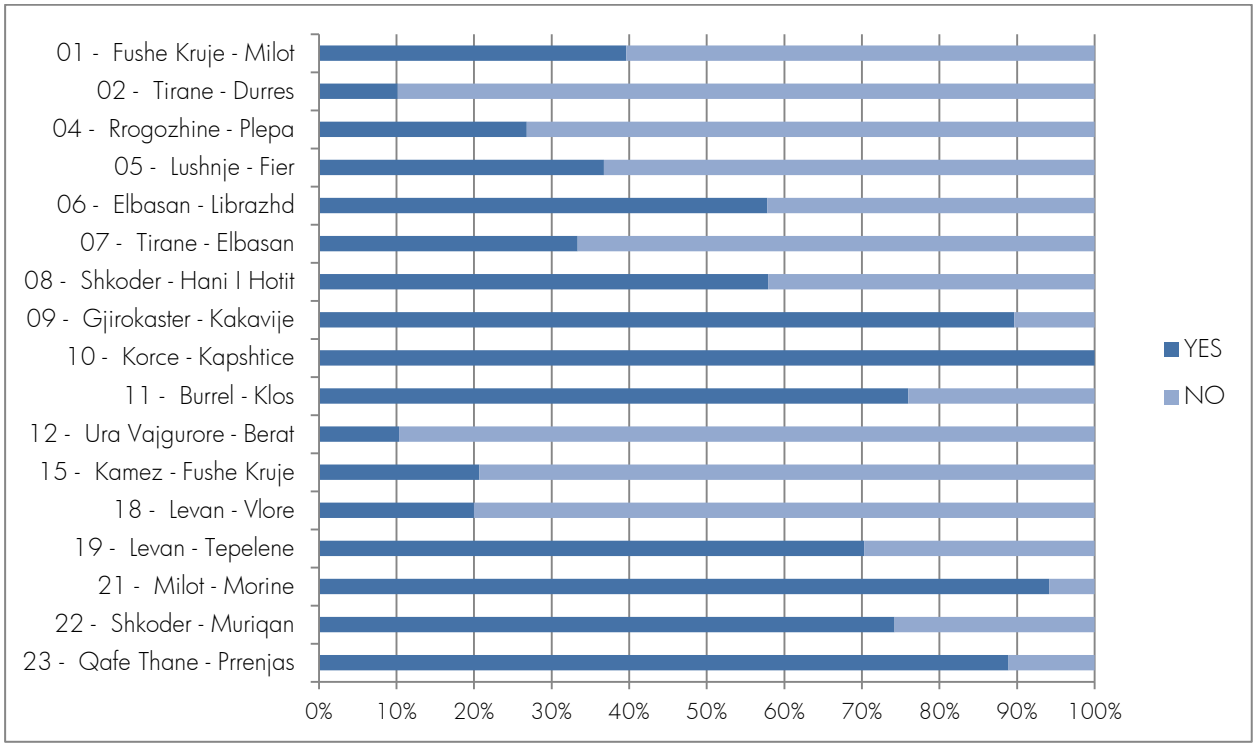
Figure II - 40. RSI buses – types of services



3.6.3.3. Distribution by intermediate stops

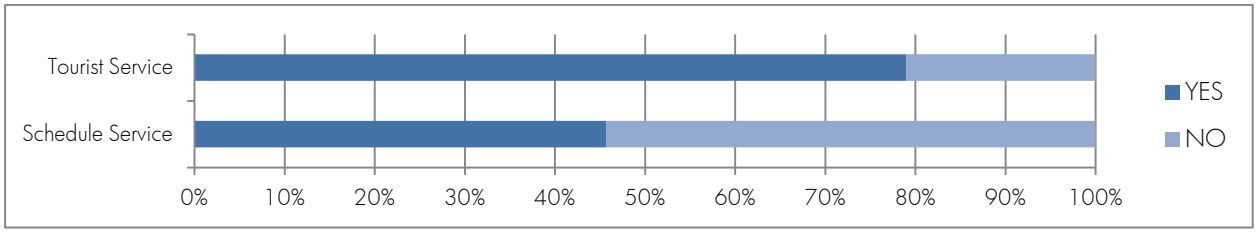
The next chart shows the existence of intermediate stops in the route, which will be subsequently used in the restructuration of the interurban bus lines, helping to define the actual situation.

Figure II - 41. RSI buses - intermediate stops - distribution by surveyed segments



In addition, we also identified the proportion of services that have intermediate stops in their routes, classified by type of service, tourist or schedule.

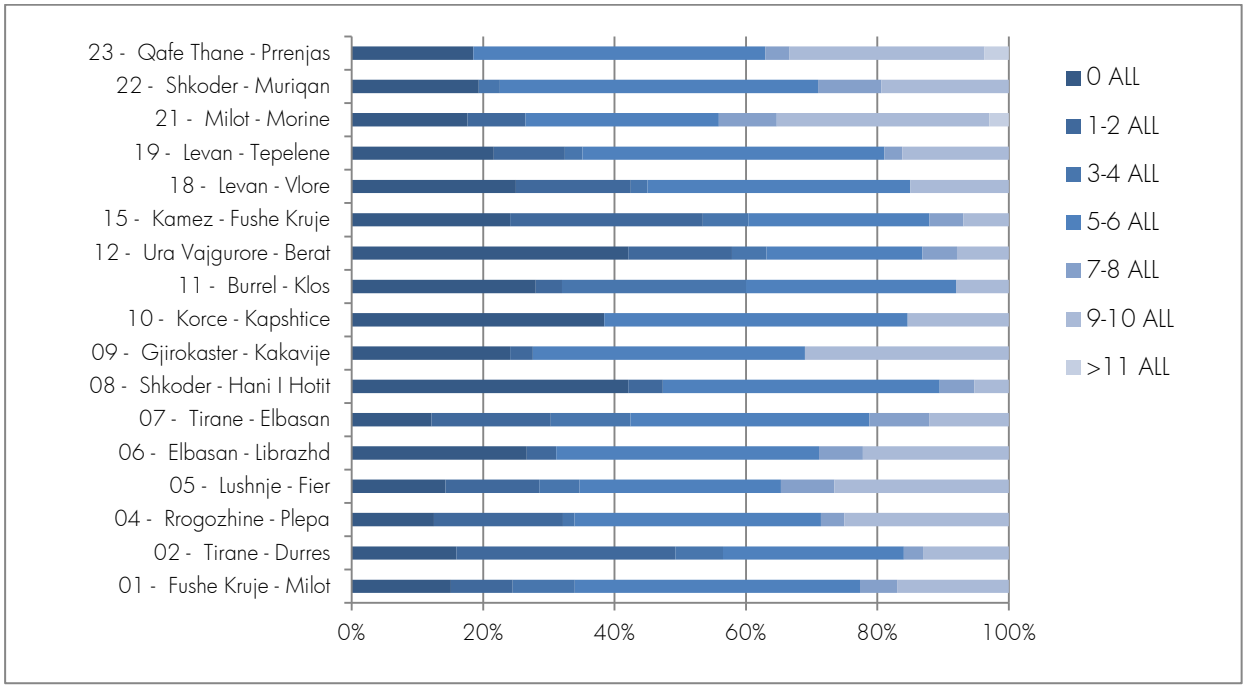
Figure II - 42. RSI buses - intermediate stops - distribution by type of service



3.6.3.4. Distribution by stated preferences questions

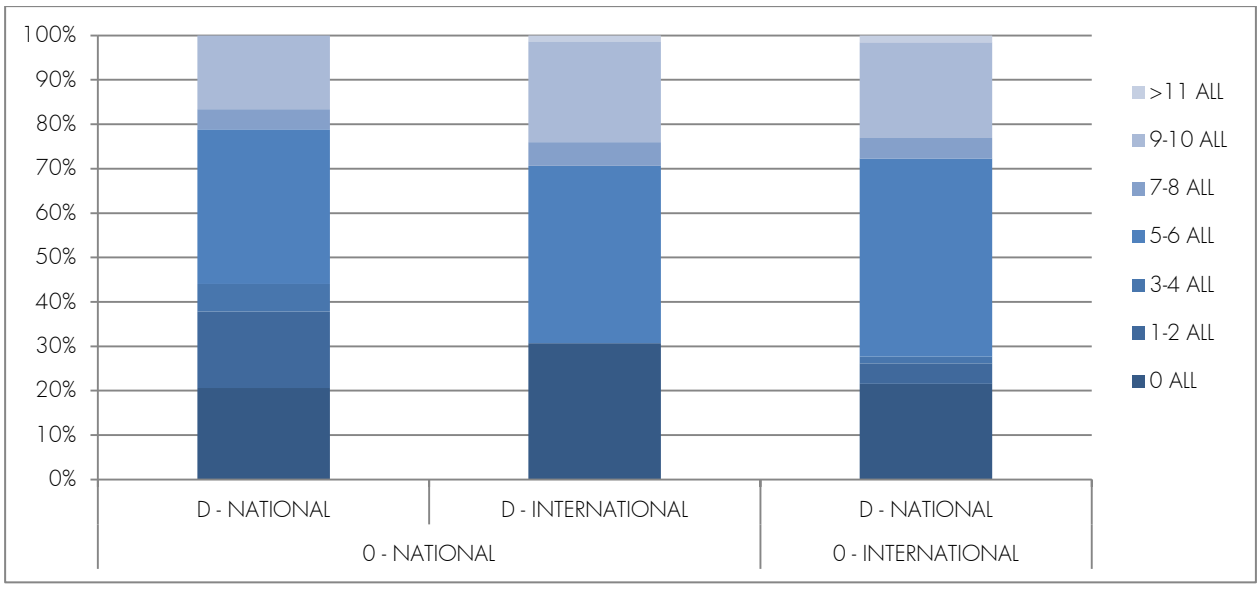
The survey included a last question regarding the stated preferences of the surveyed bus driver, where they could answer to the question *how much money (ALL) would you pay to save 1 hour in a road with better Safety and Commodity conditions?* This could help to determine the viability of investments in public transport or in tolled highways.

Figure II - 43. RSI buses - stated preferences - distribution by surveyed segment



The chart shows how the border crossing points (23, 22 and 9) and number 21 (closer to the border with Kosovo) are more eager to pay for improvements, which translates directly to the conclusion of larger trips being more comfortable paying to reduce one hour of their trip. In order to break down more exactly this question, the Consultant divided the survey by national or international trips, carried out with the help of data supplied by the questions 4 and 5 (origin and destination of the trip).

Figure II - 44. RSI buses - stated preferences - distribution by Origin and Destination



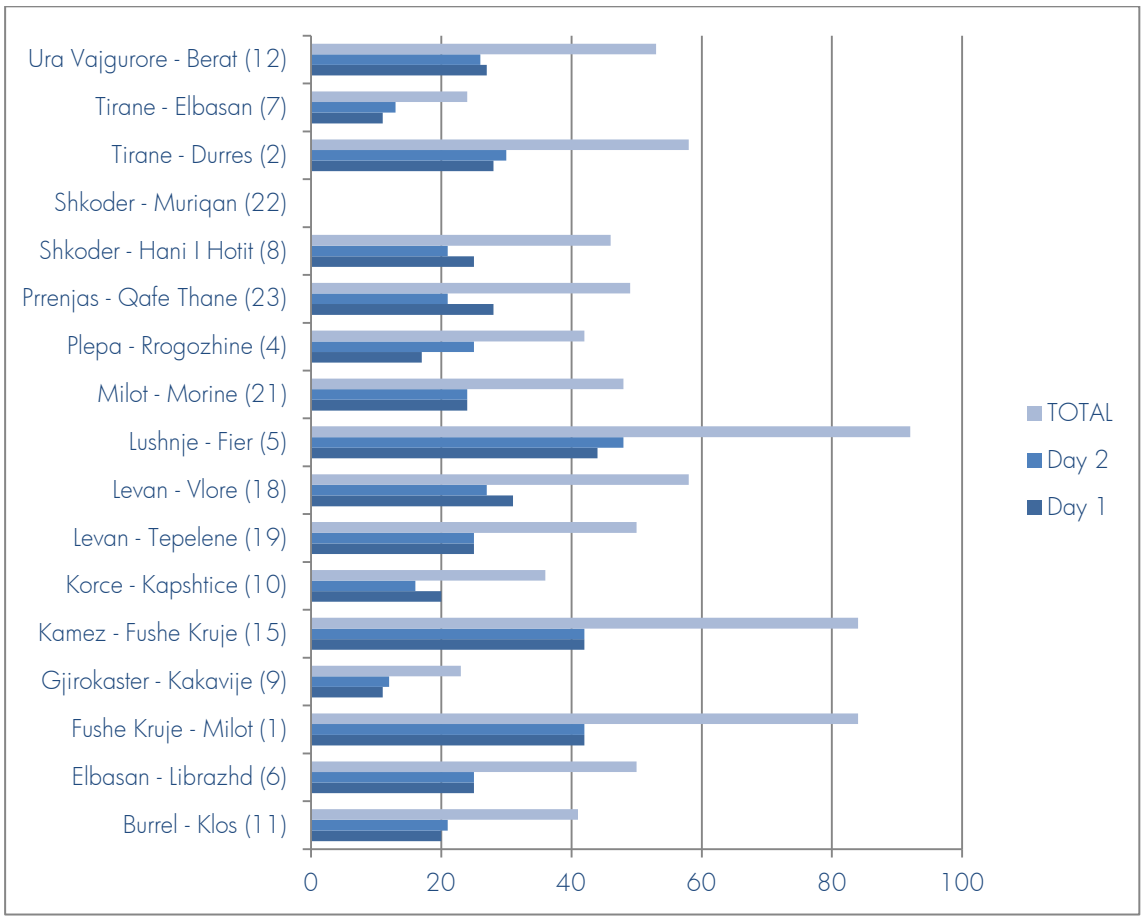
The results show how the national trips are less inclined to pay a higher ticket to reduce one hour their trip. When it comes to international trips, the results are very similar between international origin and destinations.

3.6.4. Trucks

3.6.4.1. Introduction

The total number of private vehicles surveyed was 838. The distribution of these vehicles is shown below, where the ordinate axis indicates the segment surveyed and the number corresponding to their ID in the Table II - 42.

Figure II - 45. Number of RSI surveyed - trucks



3.6.4.2. Distribution by vehicles characteristics

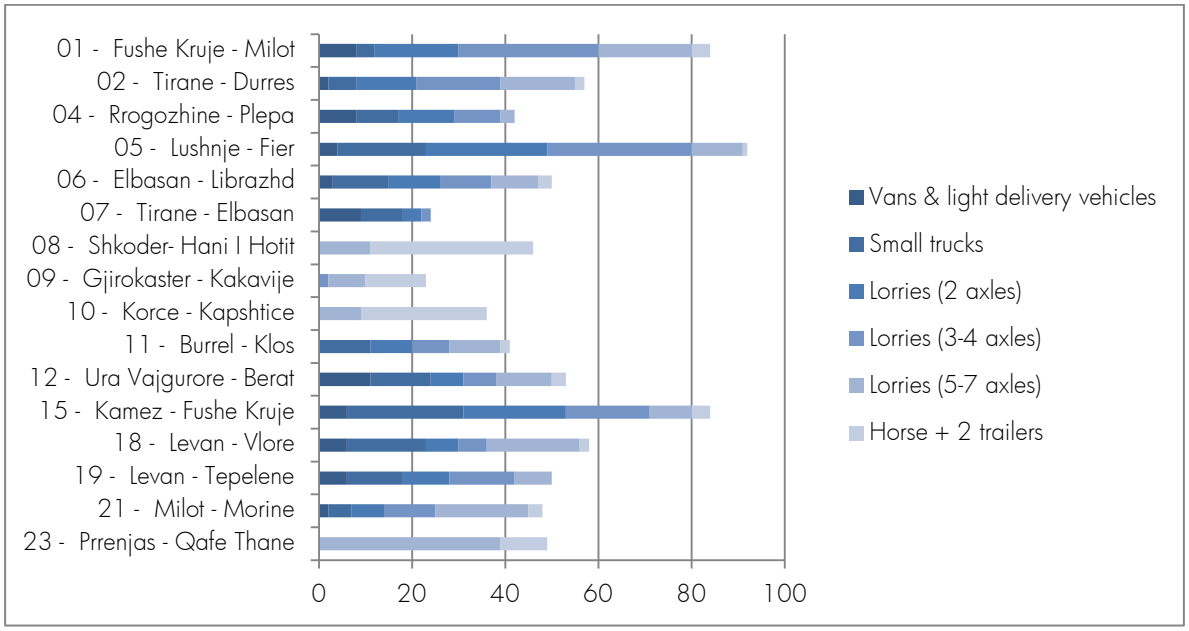
Prior to the survey campaign, the Consultant defined 6 types of vehicles in order to characterize the final matrices of goods with the maximum precision. These categories, as explained above, are as follows:

Table II - 45. RSI trucks – vehicles types

Vehicle type	Symbol	Vehicle type	Symbol
1. Vans & light delivery vehicle		4. Lorries (3-4 axles)	
2. Small trucks		5. Lorries (5-7 axles)	
3. Lorries (2 axles)		6. Horse+2 trailers	

The geographical distribution of vehicles by its type is shown in the next chart.

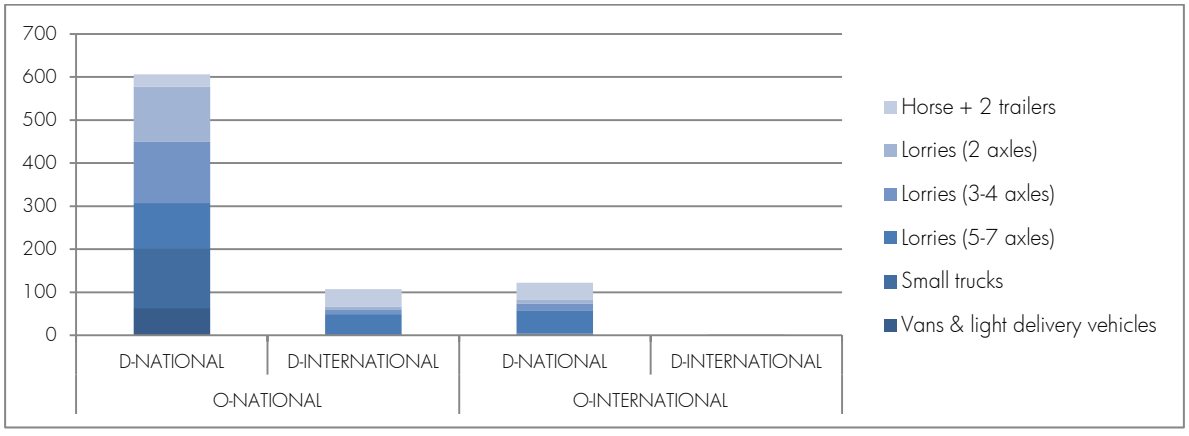
Figure II - 46. RSI trucks - vehicle types - distribution by surveyed segments



In view of the results, we can conclude that some roads are only used by large trucks and some others have a mixed use. The roads only used by large trucks are those pertaining to the border crossing segments. Therefore, the international trade is mainly done by large trucks.

The chart below shows the use of each vehicle by type of trip, distinguishing between national and international origin and destination.

Figure II - 47. RSI trucks - vehicle types - distribution by OD

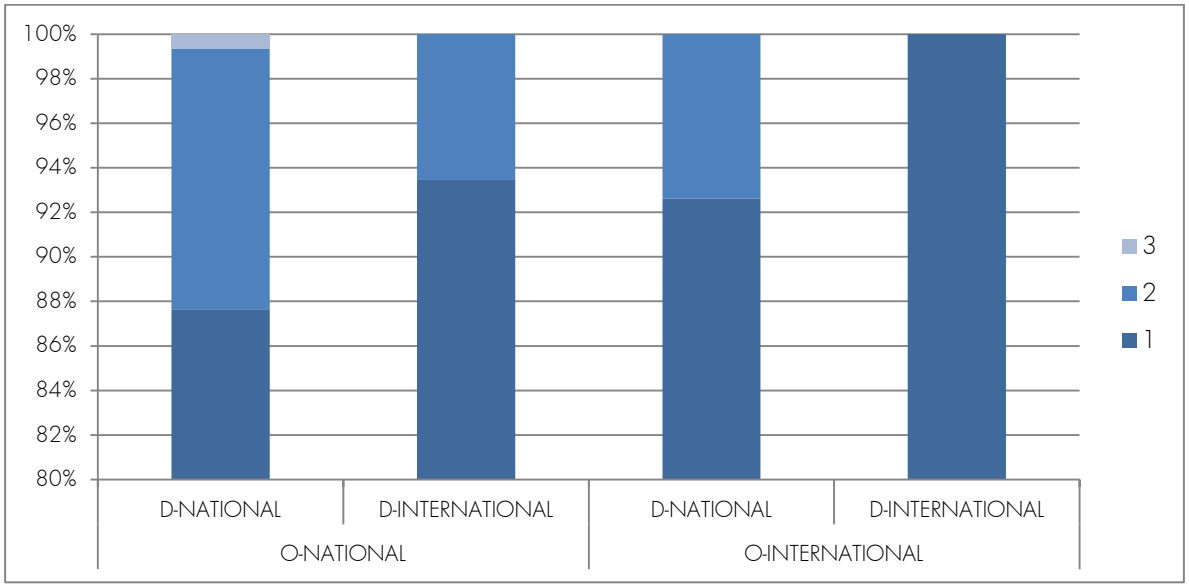


It should be noted that 2 vehicles were surveyed with international origin and destination. Both were type 6 (horse + 2 trailers) and were located in segments number 8 (Shkoder-Hani I Hotit) and 9 (Gjirokaster – Kakavije).

3.6.4.3. Distribution by driver characteristics

This section is designated to understand the number and characteristics of the truck drivers. The first chart shows the number of passengers by origin and destination. The chart shows a clear inverse correlation between the distance of the trip and the number of passengers, assuming that international trips will have longer distances.

Figure II - 48. RSI trucks - - number of passengers – distribution by origin and destination

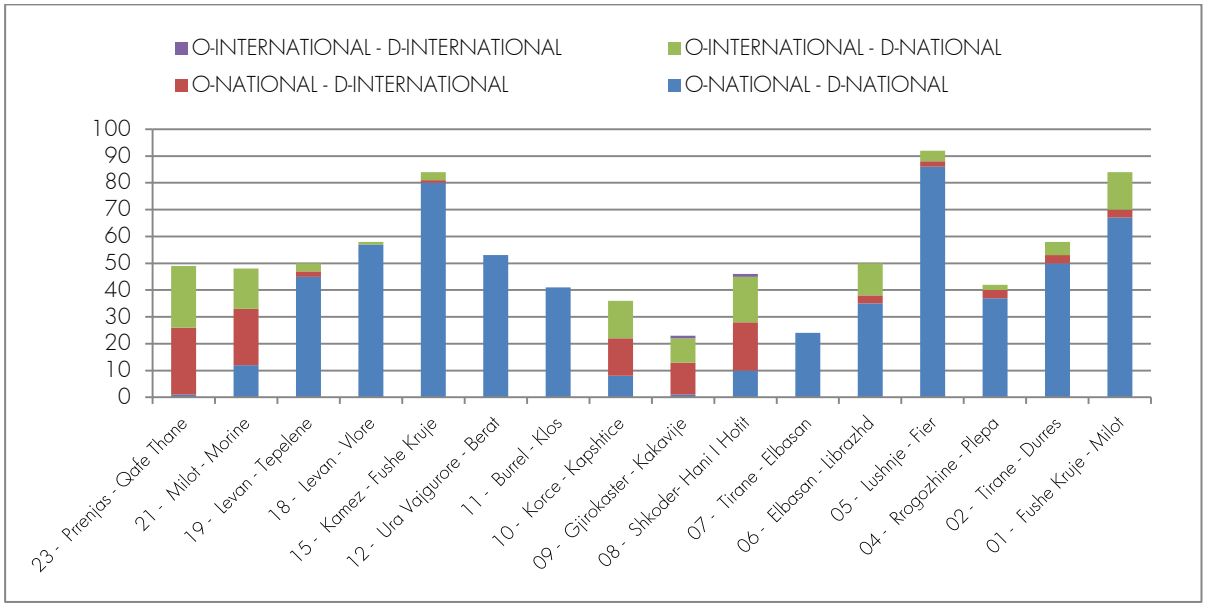


3.6.4.4. Distribution by origin and destination

This is one of the most important questions in the survey, enabling the identification of cargo in the O-D matrix. Nevertheless, this section will not scrutinize the cargo categories, since it will be analyzed in depth in subsequent sections.

The next chart represents the participation of each kind of flow in every surveyed segment, with the direct result of biggest rates of international trade in the border crossings. The international imports of point number 6 stands out, and can be easily checked in the map and characterized as imports to the main cities of Albania from the Macedonian road entries, mainly number 23 (Perrenjas – Qafe Thane Cross Border).

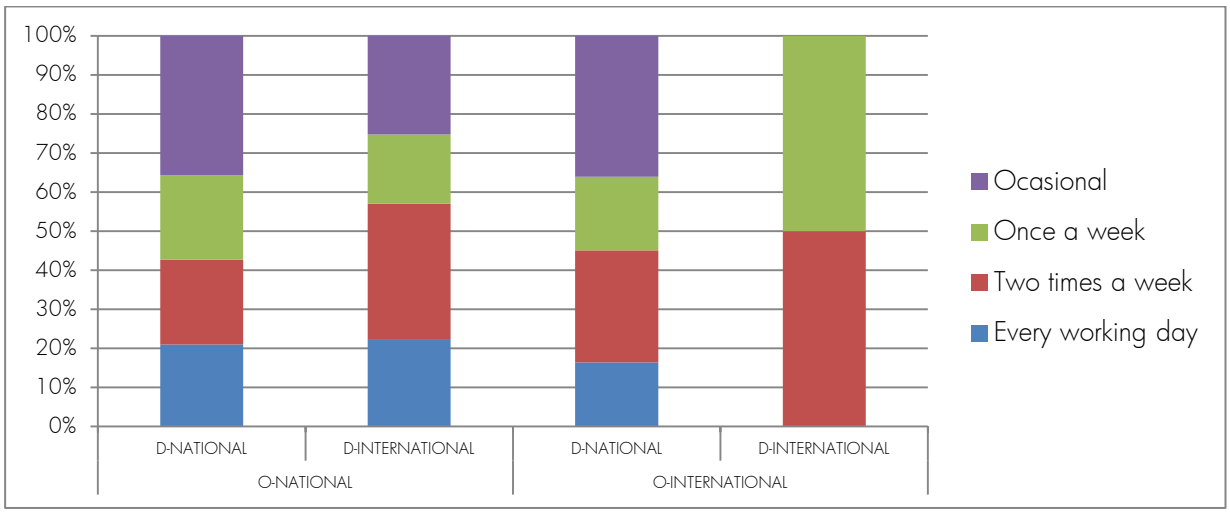
Figure II - 49. RSI trucks - OD distribution



With the objective of characterize the OD matrix and its regularity, the frequency of each type of trip is defined below. It can be seen how the national-based trips have a wider spectrum, with trips distributed in each frequency. On the other hand, the international trips that cross Albania through their journey have a frequency

concentrated in 1 or 2 times per week. Stands out how the export trips have a larger incidence than imports, with more daily trips, being the imports more identified as occasional. This information might conflict with the socioeconomic information, defining imports larger than exports, but it must be noted that this chart shows relative values, being the total number of importing trucks surveyed bigger than the exporting ones.

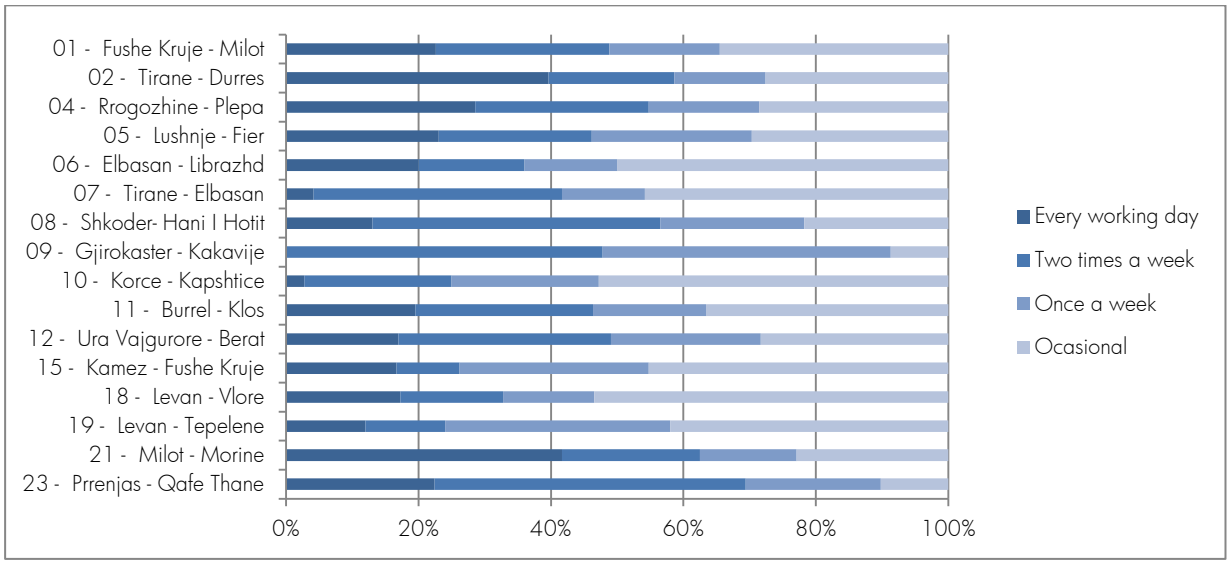
Figure II - 50. RSI trucks - OD distribution - frequency



3.6.4.5. Distribution by frequency

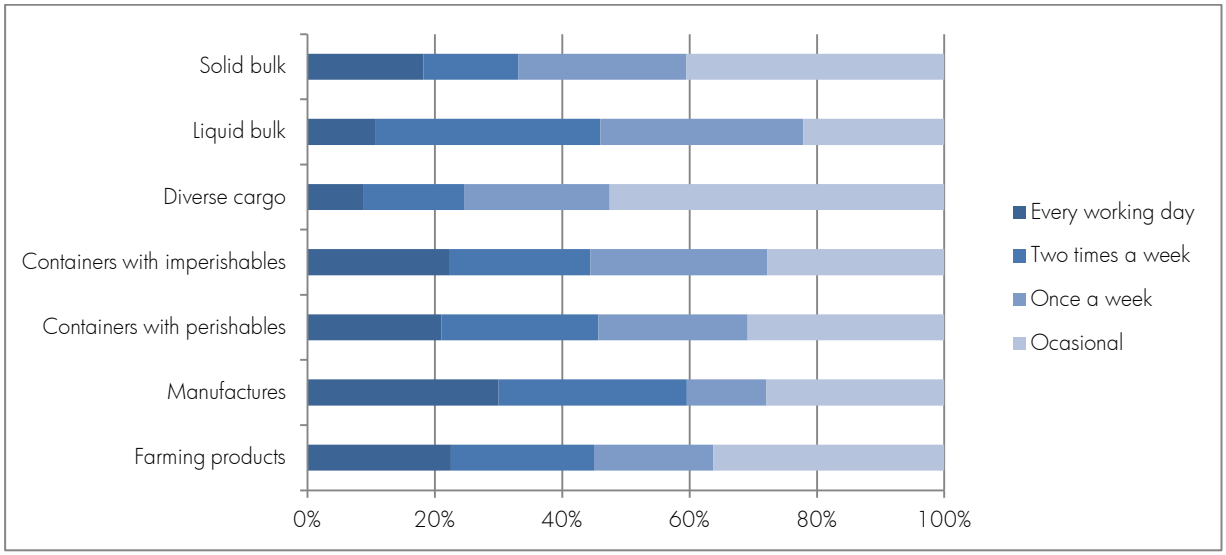
In connection with the previous section, the next chart shows the frequency distribution by surveyed segment. The key transport corridor of Tirana-Durres has one of the biggest percentages of *"every working day"* trips, as well as the Lushnje-Fier corridor.

Figure II - 51. RSI trucks - frequency - distribution by surveyed segments



When analyzing the cargo type, the *diverse cargo* stands out as the less frequent; as it is the "catch-all" category and its journeys are occasional services. On the other hand, manufactures and liquid bulk outstand as the most regular trips, among a relative regularity of the rest of types.

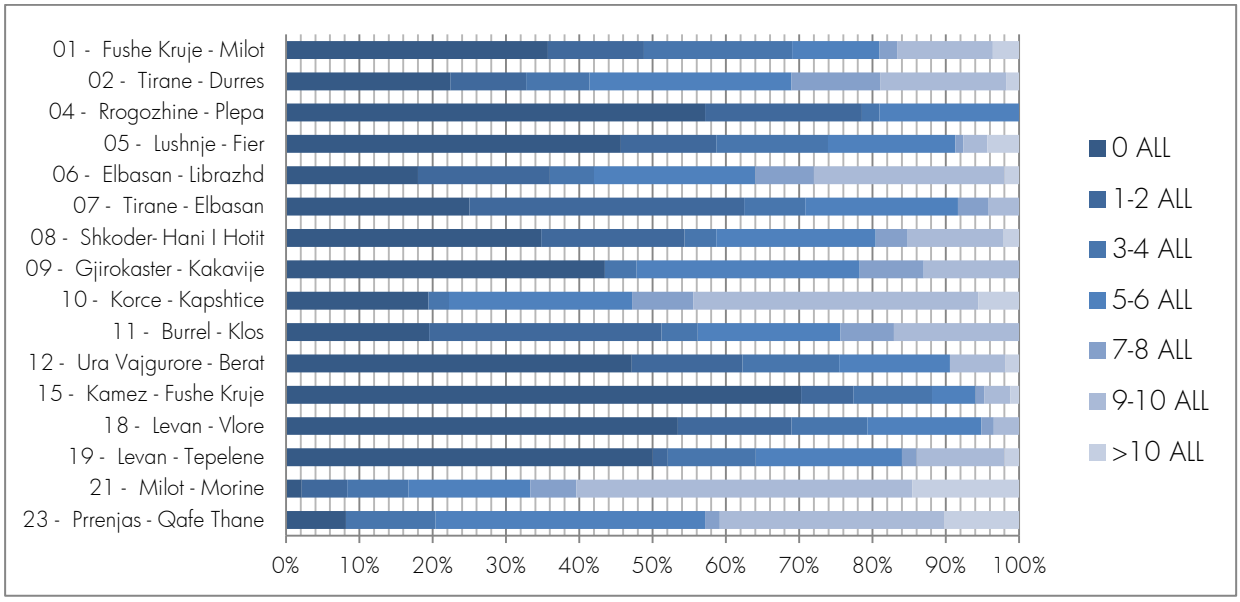
Figure II - 52. RSI trucks - frequency - distribution by cargo type



3.6.4.6. Distribution by stated preferences question

This section represents a great opportunity to understand the needs of the truck drivers and companies, by collecting firsthand knowledge and priorities. The first sections to analyze are the list of surveyed segments, and its stands out how the border crossing points are more eager to pay money to improve their trip (segments 10, 21 and 23). It will be further evaluated, but the segments 21 and 23 are one of the more optimized ones in terms of load percentage and have a small empty return rate. Thus, these signs show how these routes are already optimized from the companies' standpoint, so improvement of the network shall be subsequently discussed.

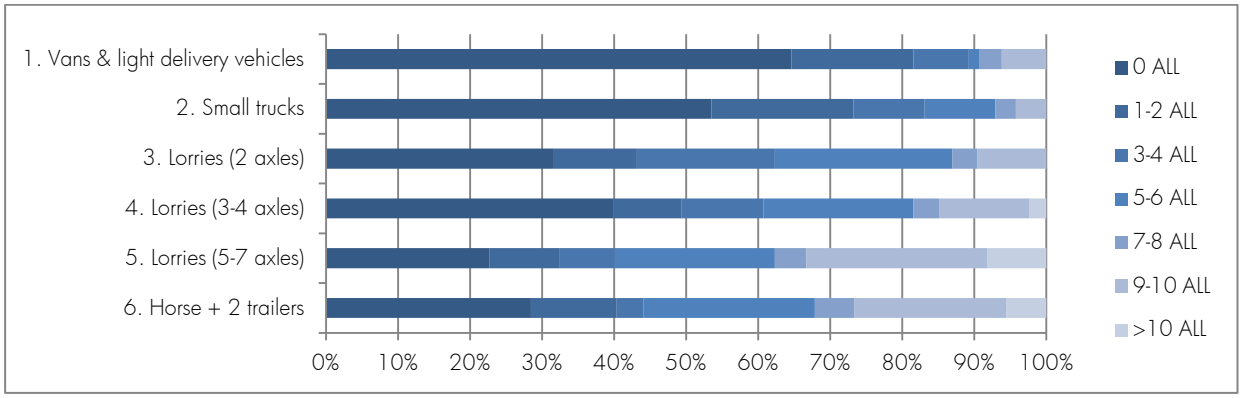
Figure II - 53. RSI trucks - stated preferences - distribution by surveyed segments [1]



These results must be contrasted with the type of vehicle surveyed, since bigger vehicles are more expectant to invest money in time reductions, being their trips generally larger.

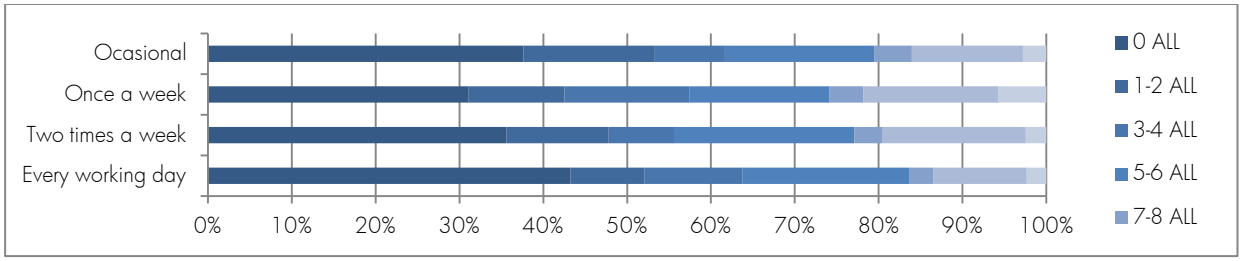
[1] The results are referred to 100 LEKS. 1 ALL means 100 LEKS, and successively.

Figure II - 54. RSI trucks - stated preferences - distribution by type of vehicle



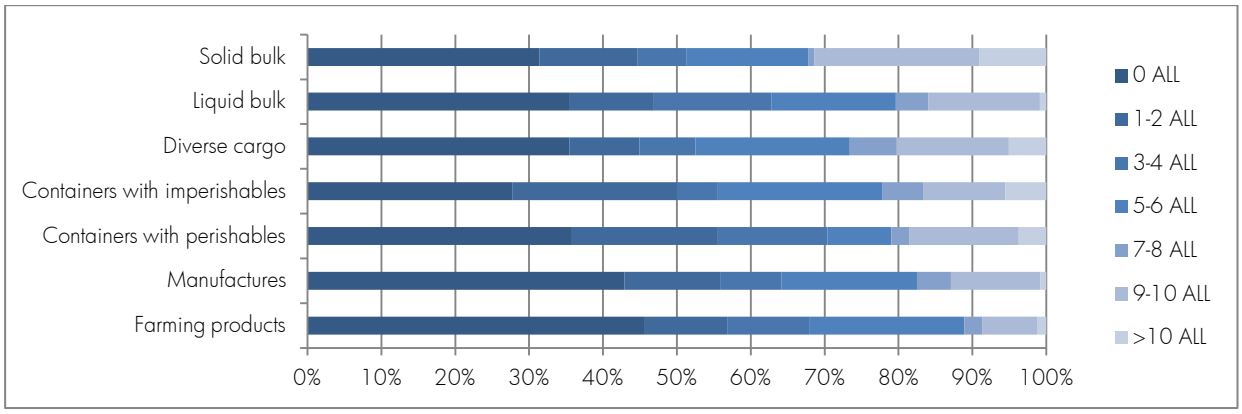
No additional conclusions could be extracted from the frequency of the trip, since their responses were relatively standard, with a slight correlation between incidence and investment preferences.

Figure II - 55. RSI trucks - stated preferences - distribution by frequency



The last analysis was made in terms of cargo type, so the intermodal hubs and logistics centres that are under study could be precisely evaluated.

Figure II - 56. RSI trucks - stated preferences - distribution by type of cargo

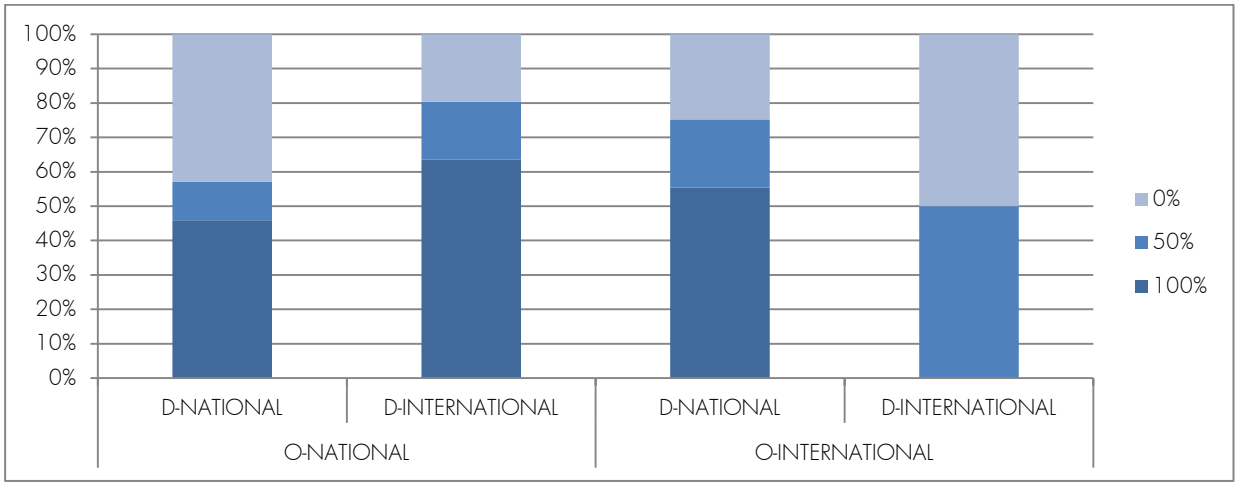


3.6.4.7. Distribution by percentage of load

The percentage of load and empty running rates are important to identify the level of optimization of the Albanian transport system. The inefficient use of trucks leads to too many trucks on the roads and unnecessarily increases the externalities of such vehicles.

Keeping in mind the subsequent analysis of logistic and intermodal hubs, the percentage of load of the vehicles is key to identify opportunities for the implantation of new centres. The next chart shows the empty running rates of the different types of trip, segmented by origin and destination, in Albania.

Figure II - 57. RSI trucks - OD distribution – percentage of load

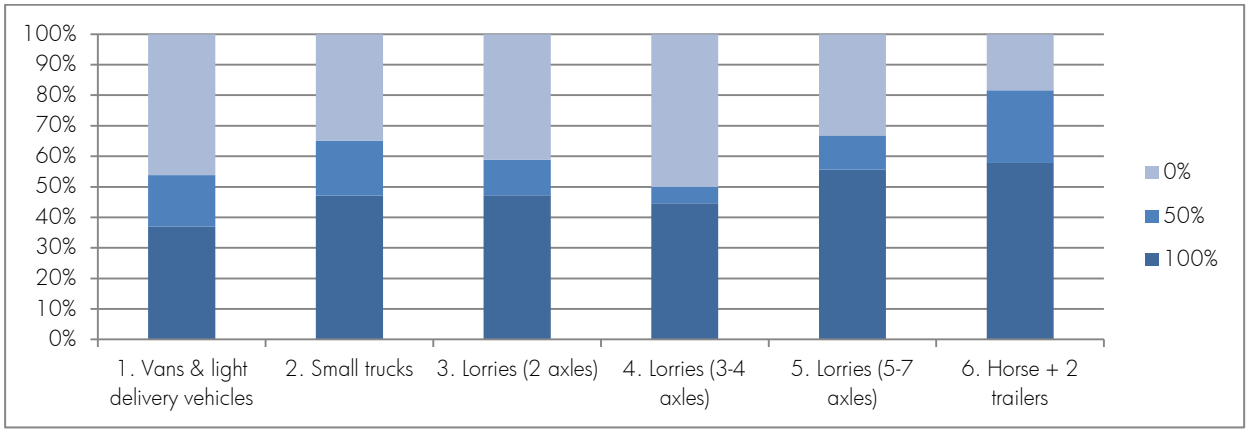


An optimization of these rates is desirable to improve the efficiency of Albanian traffic of goods, as there is still progress to be made over these ratios.

Albania has a 43% of empty running for national trips, while imports have a 25% and exports a 20%. Compared to the EU-28, a quarter of journeys were performed by empty vehicles (25.4 % in 2016). The share of empty journeys grows to 30.3% for national transport, but is only 14.3% for international transport in 2016. It must be pointed out that the journeys with international origin and destination could not be analyzed in Albania, since only two trucks were surveyed.

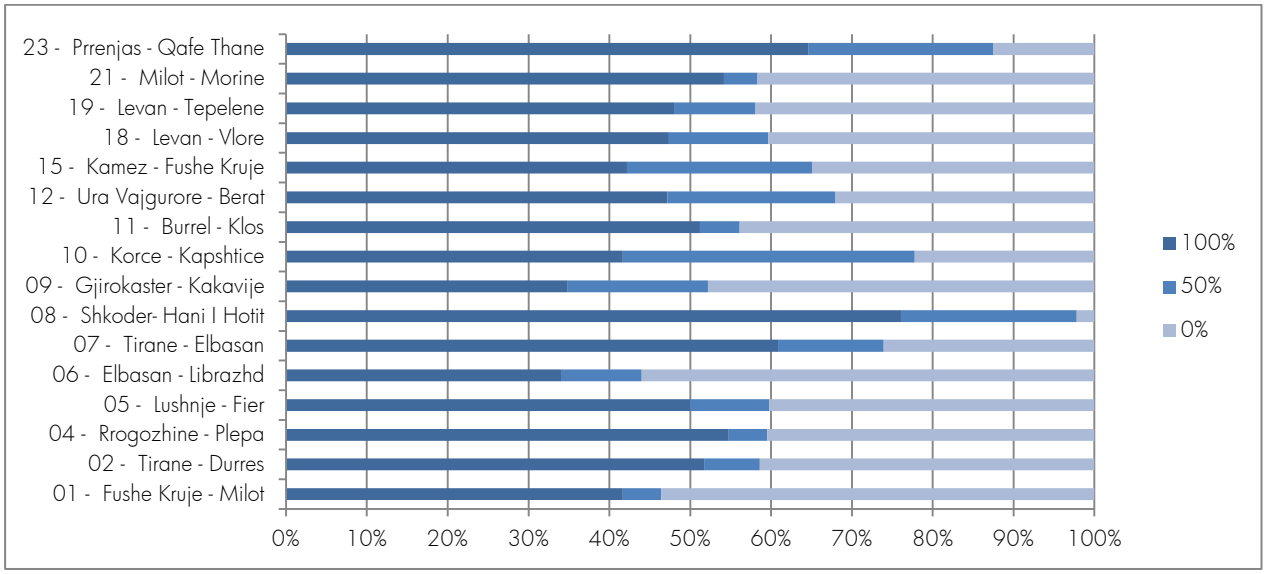
The next chart shows the percentage of load by type of vehicle, with bigger trucks (5-7 axles and hose+2 trailers) being more optimized.

Figure II - 58. RSI trucks - percentage of load - distribution by type of vehicle



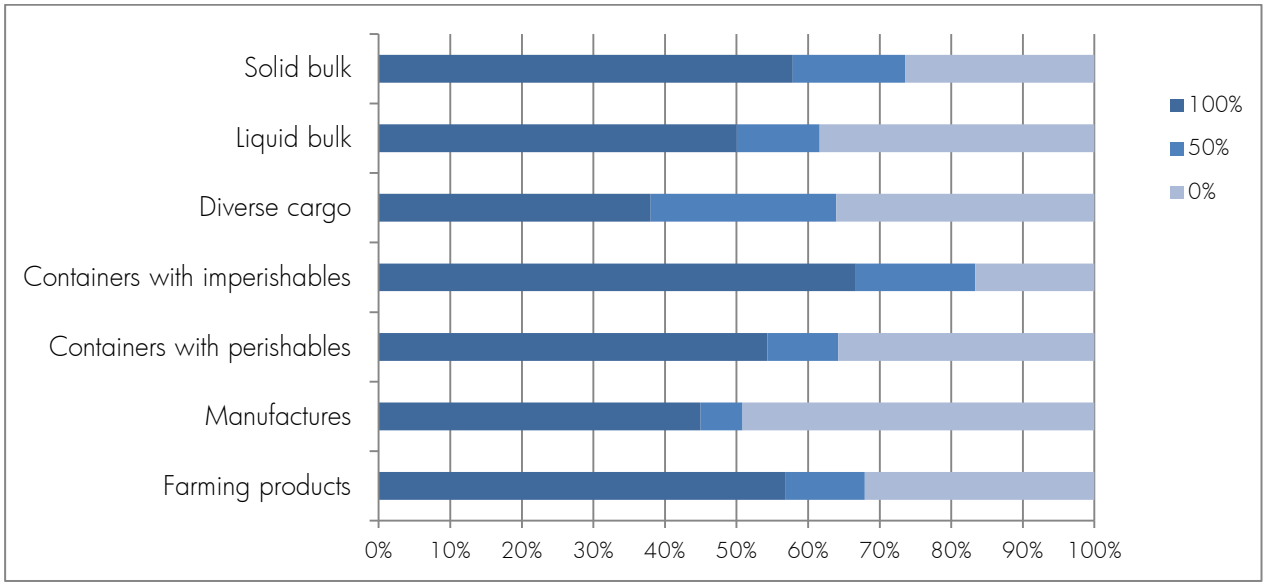
Albanian numbers might be increased by a reflection of the journeys carrying goods imported through ports and construction traffic, which is largely one way. Nevertheless, these rates will be further analyzed. In order to do so, the next chart shows the segments surveyed and its percentage of empty running, so the intermodal proposals can be subsequently optimized.

Figure II - 59. RSI trucks - percentage of load - distribution by surveyed segments



In connection with the next section, the different types of cargo are shown below, organized by their percentage of load. This will also be taken into account for the intermodal analysis, as for example in proposals relating to the optimization of the manufactures journeys, since they have the bigger empty return rate (49%).

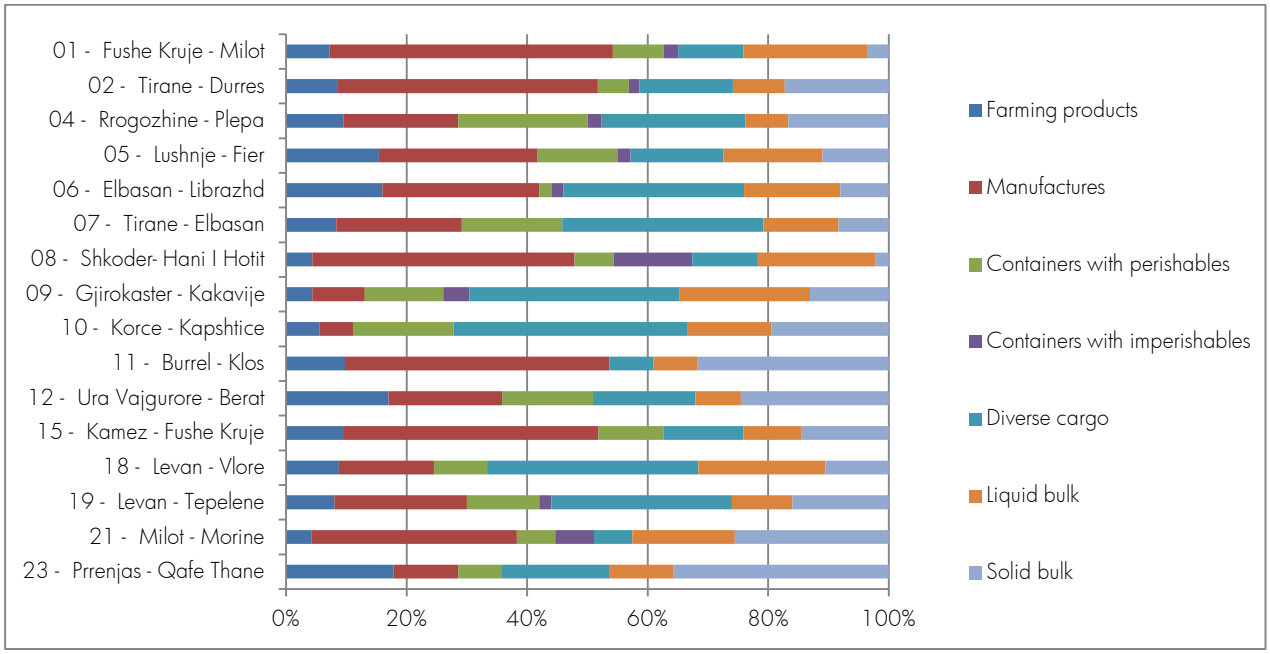
Figure II - 60. RSI trucks - percentage of load - distribution by type of cargo



3.6.4.8. Distribution by cargo

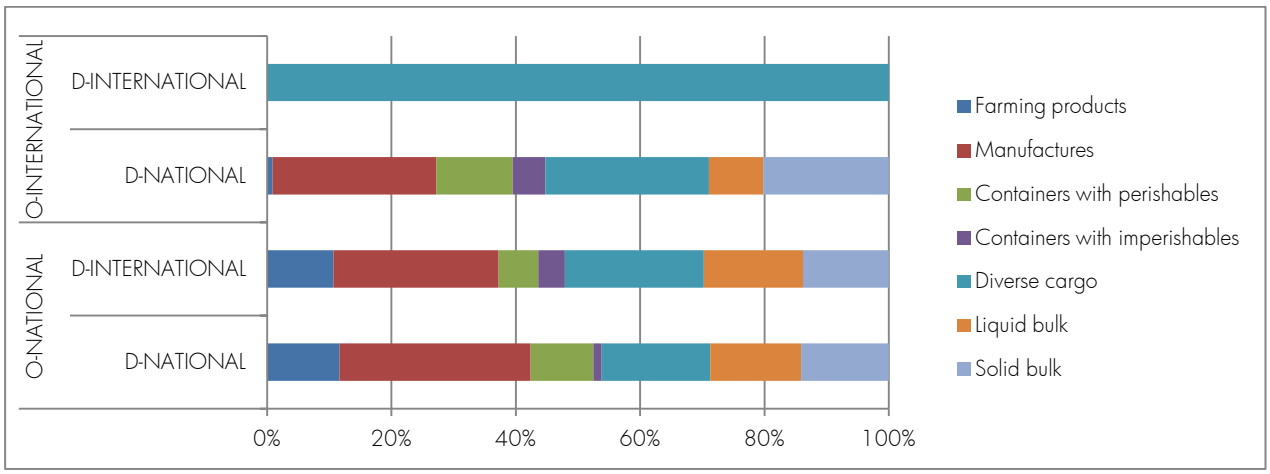
This section serves as a brief introduction of the Freight traffic analysis, and its main purpose is to identify the main corridors of the different markets and their characteristics.

Figure II - 61. RSI trucks - cargo type- distribution by surveyed segment



The next chart shows the distribution of cargo types by origin and destination. It must be pointed out how the international trips cannot be considered since they were only 2 surveyed vehicles, so the sample is not globally representative.

Figure II - 62. RSI trucks - cargo type- distribution by OD

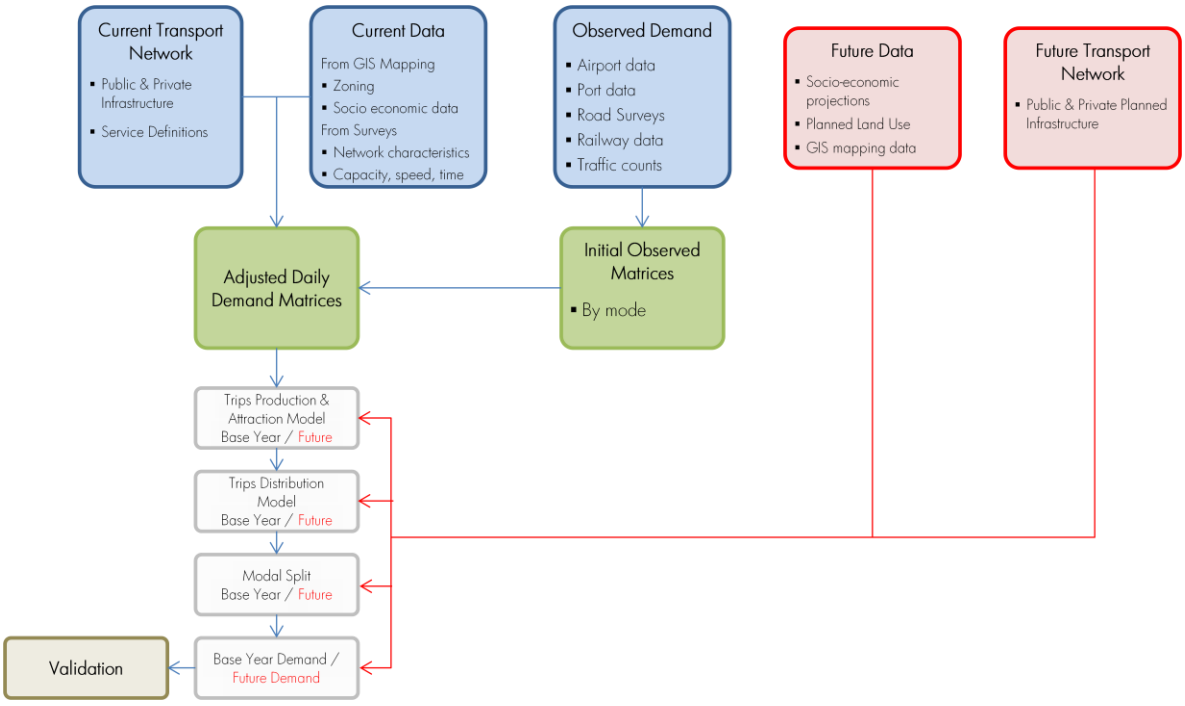


4. TRANSPORT MODEL

4.1. GENERAL ORGANIZATION OF THE MODEL

Transport forecast models consist of two key components. Firstly, a method for representing the transport supply both to provide the costs of travel and to assign demand to potential routes. Secondly, a method for representing travel demand by private or public transport mode. This must be capable of reflecting changes in trips productions variables and also costs of travel. The figure below shows how these two components interact.

Figure II - 63. Organization of the model



The process starts with the definition of the current transport network. Once the network is defined, the customers which are using the network have to be defined. This is undertaken by means of the development of different stages and by different models: Production and distribution models, modal split and finally assignment models.

4.2. MODELLING SOFTWARE

As stated in the ToR, the Consultant "*will furnish the IoT with the latest version of TransCAD or similar software*". In order to provide continuity to IoT's skills and based on the previous experience of the Consultant, the Modelling Analysis has remained in TransCAD (transportation planning software developed by Caliper), and the version has been updated to the TransCAD 7, according to the necessary features for the development of the ANTP3. Necessary training regarding the use of the new version will be taught during the on job training.

The Consultant used TransCAD for the following tasks of the ANTP3:

- GIS functions to consolidate geographic and network information, coming from different sources. In addition to the update process, the existing network was also enhanced.
- Map and analyze socioeconomic information related to the different administrative subdivisions, as a tool to interpret the actual situation of the transport sector in Albania.
- Conduct and organize the tasks of traffic flow data collection during the surveys, in the form of OD matrices and assign them to the national transportation networks.

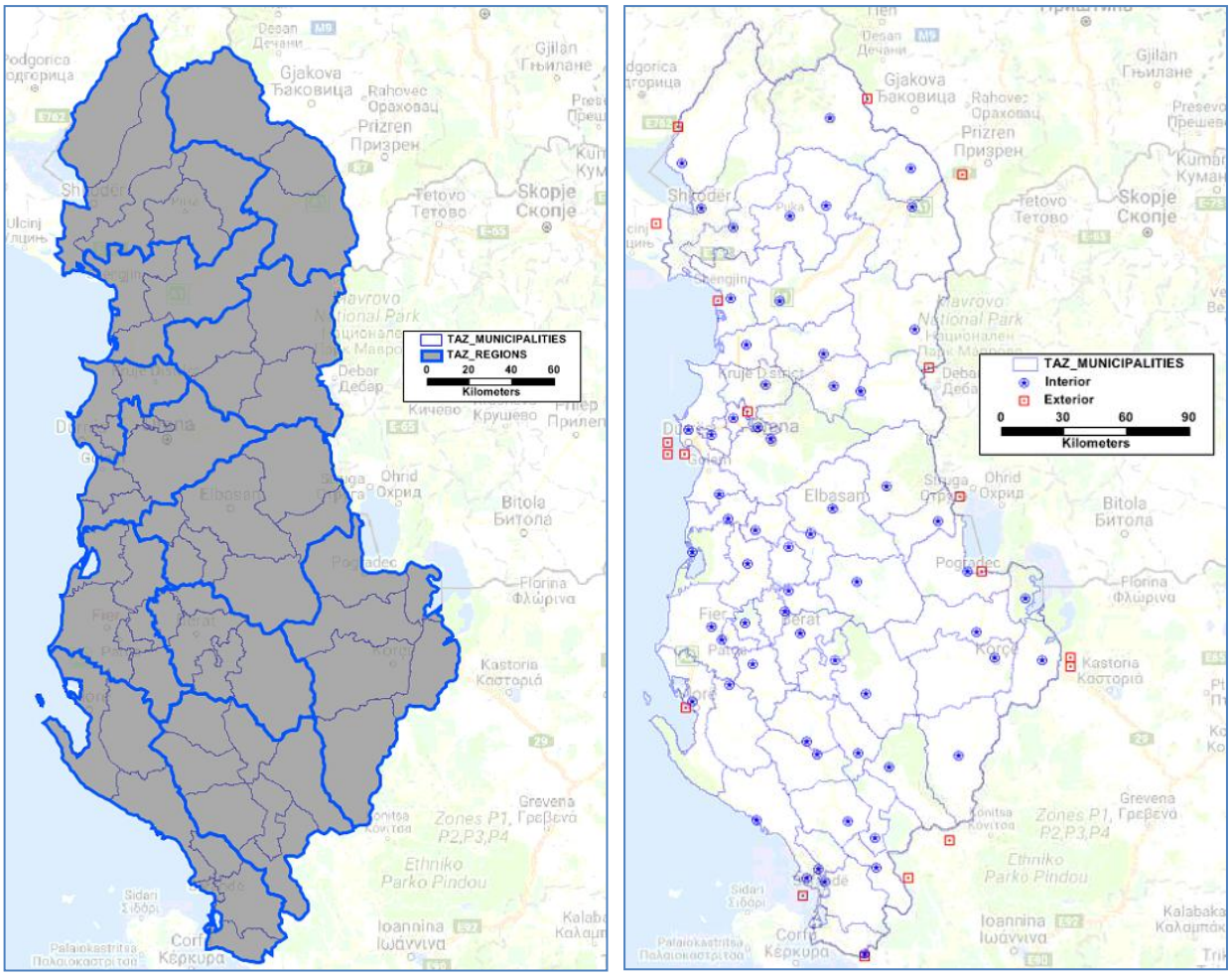
- Execute passenger flows generation and attraction models using socioeconomic and transport related data.
- Develop the main commodity transport flows from the disaggregated analysis of the present transport demand.
- Employment of different assignment methods to distribute the generated flows on the network's links.
- Calibration process to adjust the traffic flows initially obtained to the collected data in the survey campaign, through their traffic counts (automatic and manual) and RSI (road side interviews).
- Once the model is set, analyze the main shortcomings of the network and the impact of proposed improvements to the transport infrastructure.
- Estimate future traffic flows and their potential problems derived on the networks, based on forecasted transport demand.

4.3. TRANSPORT ANALYSIS ZONES

Transport Analysis Zones (TAZ) are geographic areas that divide the study area into similar areas considering land use or population patterns to further modelling the origins and destinations of trips. Regarding this particular Project, the Consultant Team have proposed two levels of zoning, a general zoning at the level of Municipalities involving 61 municipalities within 12 regions of the Albanian territorial distribution, and a second level involving access points to the network in the border crossing and ports of access. In order to disaggregate the origin and destination of the trips in the access points when available, duplicate centroids have been coded for different countries.

The following figure displays two maps: the left one shows the two levels of zoning used in the model, diversely exploited depending of the object of analysis and availability and disaggregation of the information, while the right one presents the two types of centroid, interior and exterior.

Figure II - 64. TransCAD model – TAZ and centroids



This zoning is compatible with the previous model zoning and socio economic data sources, generally based on Districts. In order to compare both configurations, the Consultant made a correlation matrix between old Districts and new Municipalities based on Population indicators of the 2011 Census. This equivalence was possible to undertake due to the old disaggregated administrative distribution of 308 *komuna* (communes) and 65 *bashkia* (municipalities), as they were referred to as part of both the old Districts and the new Municipalities.

Finally, the network stands with 80 centroids, 61 Municipalities and 19 external miscellaneous. Each one of them has its own TransCAD ID, another ID for the TAZ (if any) that represents and older IDs associated to previous models developed by third parties. Thus, the Consultant established a new "zone code" for each centroid, which will serve as reference for every matrix or table created from now on.

Table II - 46. Relation of centroids and zone codes

CENTROID	ZONE CODE	CENTROID	ZONE CODE	CENTROID	ZONE CODE
Tropojë	1	Korça	28	Shijak	55
Mallakastër	2	Krujë	29	Shkoder	56
Belsh	3	Has	30	Tepelenë	57
Berat	4	Kuçovë	31	Tirana	58
Devoll	5	Kukes	32	Ura Vajgurore	59
Bulqizë	6	Kurbin	33	Vau i Dejës	60
Mat	7	Lezha	34	Vlora	61
Cërrik	8	Libohovë	35	Vora	62
Skrapar	9	Librazhd	36	Montenegro Hani	63
Delvinë	10	Lushnjë	37	HHotit BC Monte	64
Divjakë	11	Maliq	38	Morine BC Kosovo	65
Dropull	12	Memaliaj	39	Qafe Morine BC	66
Durres	13	Patos	40	Bllade BC Macedo	67
Elbasan	14	Peqin	41	Port of Shengjin	68
Kolonjë	15	Përmet	42	Port of Durres	69
Fier	16	Diber	43	Port of Vlora	70
Finiq	17	Pogradec	44	Port of Saranda	71
Fushë Arrës	18	Poliçan	45	Qafbot BC Greece	72
Gjirokaster	19	Prrenjas	46	Qaf Thane BC Mac	73
Gramsh	20	Pukë	47	Tushemisht BC Ma	74
Himarë	21	Pustec	48	Kapshtice BC Greece	75
Kamëz	22	Rinas	49	Triurat BC Greece	76
Kavajë	23	Roskovec	50	Greece	77
Këlcyrë	24	Mirditë	51	Port of Durres (Italy)	78
Klos	25	Rrogozhinë	52	Port of Durres (others)	79
Konispol	26	Sarandë	53	Kapshtice BC Turkey	80
Malësi e Madhe	27	Selenicë	54		

It should be noted that the Rinas centroid (n° 49) is interspersed among the Municipalities, so that the first 61 zone codes are not exactly the 61 Municipalities. Also, the port of Durres, given the importance of transactions with Italy, was separated into two centroids, one for Italy and other for the rest of countries.

4.4. NETWORK CODING

The modelling of the transport network is carried out by determining the number of zones, nodes, and links that most accurately represent the actual state of the transport network in the study area.

The model was updated in line with the procedure "*Keeping the Transport Model in Mind*". Therefore, the different linear and nodal infrastructures have been unified into one layer, despite being created or brought up to date in separated processes. The final aim of the Consultant was to generate a model where different assignments and comparisons could be made, generating simulated scenarios adjusted to reality. Having the different modes of transport (road, interurban buses and rail) in one layer allowed to create a seamless representation of the reality, due to multimodal assignments methods.

The main information was provided by two sources: first the previous network defined in the ANTP2, and as a second source the information provided by the Ministry of Transport in a GIS file. This GIS file was used to update the situation of the roads planned and the improved characteristics of the existing ones.

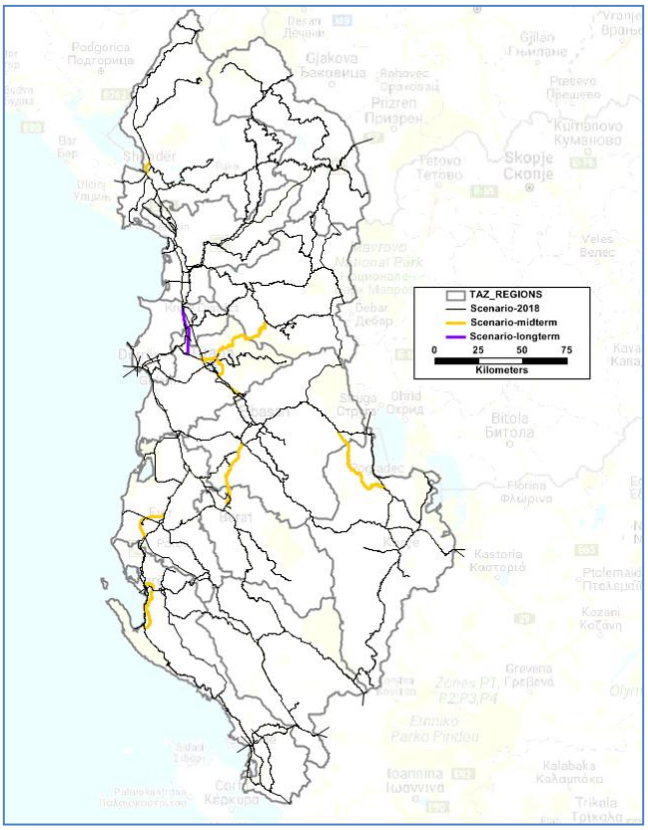
Additionally, the Consultant revised diverse sources such as the First Monitoring Report of the *Sectorial Strategy of Transport & Action Plan 2016-2020*, official websites of Albanian authorities, etc.

4.4.1. Road Network

The road network is constructed with links and nodes in the so-called Network Graph: the links are stretches of road between intersections or zone accesses, portrayed in turn as nodes on the graph. The links are the elements that carry the physical and functional characteristics of the network and thus these links will show:

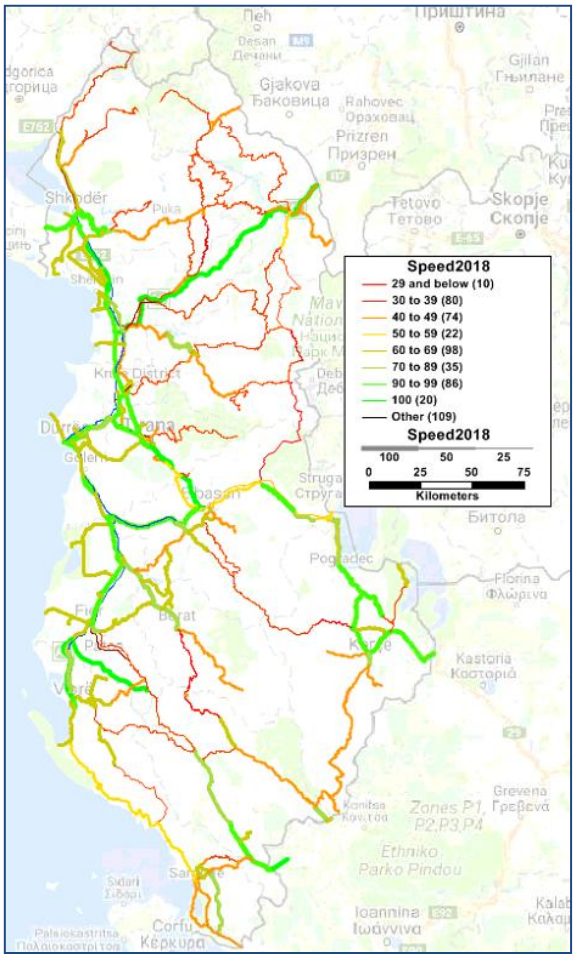
- The road type: the hierarchical importance of each of the roads is determined based on the information collected. The hierarchy of roads is determined on the basis of their capacity and the availability of direct routes of high demand, with assignment of roads of first, second and third level of hierarchy of importance.
- Length. Data regarding the extent of the represented segment is subject to being entered by means of the GIS provided.
- The number of traffic lanes as part of the topological description of the network.
- Free flow speed of private transport, updated to the newest constructions and improvement works.
- Capacity of private transport within a time interval, adopted from existing transport models provided by IoT and updated to the current scenario.
- Travel time, generated from the characteristics of each link.
- Road status, according to the previous analysis to define the actual network and the roads expected to be done in the mid and long terms.

Figure II - 65. TransCAD model - roads



In addition to this categories, some of the links will have extra information related to the traffic survey campaign, and will be applied for the calibration process explained before. Furthermore, the IoT provided different ratings actualized to 2014 that will be used by the Consultant for evolution analysis.

Figure II - 66. TransCAD road classification- speed



The table below shows the summary of road links in the network, divided by speed limit. The most common roads modelled are urban & rural (30-40 km/h) and interurban (60 km/h), followed by high speed lanes.

Table II - 47. TransCAD model – road links summary

Speed limit (km/h)	Total Length (km)	Number of links
10	91	4
20	90	6
30	1286	80
40	668	73
50	206	19
60	601	97
70	92	11
80	145	24
90	422	81
100	232	16

4.4.2. Rail Network

In addition to the road network, the transit network has been incorporated to the network model. The transit graph is composed by the road transport network and the railway transport network. The representation of the railway routes is defined by the sequences of stops and the path followed between those stops. To do so the

previously defined network by means of nodes and links should incorporate the information needed to represent the railway network properly.

The following image shows the distribution of the actual Albanian rail network, distinguishing between multimodal segments (passenger & freight), segments only for freight and unavailable links.

Figure II - 67. TransCAD model - railway network

Further conclusions will be drawn on improvements needed, but on a preliminary basis, the need of an international connection for the network is highlighted. It also stands how the lack of maintenance and passenger services extends as the railways get further from the North-South axis on the coast.

Nowadays, the Albanian railway network operates below its actual capacity, due to lack of maintenance operations, an ancient network and the need of investments. As a result, the commercial speed and times between stations are reduced, as shown in the table below.

Table II - 48. Main Characteristics of Rail Sections

Segment	Length (km)	Speed (km/h)	Time (hours)
Transport of Passengers			
S-1: Durres-Tirana	33.20	37.61	0.88
S-2: Durres-Rrogozhina	34.60	31.28	1.11
S-3: Rrogozhina-Vlora	84.40	25.63	3.29
S-4: Rrogozhina-Elbasan	40.40	26.50	1.52
S-5: Elbasan-Pogradec	77.60	27.93	2.78
S-6: Vora-Shkoder	84.90	27.54	3.08
S-7: Shkoder - Hani I Hotit	34.70	39.60	0.88
TOTAL	389.8	28.78	13.54
Transport of Freight			
S-1: Durres-Tirana	34.00	36.36	0.94
S-2: Durres-Rrogozhina	30.00	31.50	0.95
S-3: Rrogozhina-Vlora	81.00	25.94	3.12
S-4: Rrogozhina-Elbasan	40.00	27.62	1.45
S-5: Elbasan-Pogradec	78.00	27.93	2.79
S-6: Vora-Shkoder	86.00	29.76	2.89
S-7: Shkoder - Hani I Hotit	37.00	31.55	1.17
S-8: Fier-Ballsh, Budul-Fushe etc.	39.00	30.03	1.30
TOTAL	425.00	29.08	14.61

Source: Ministry of Transport and Infrastructure (extinct)

It has to be stressed that the segment *S-1: Durres-Tirana* does not cover the whole trip, since the rail network ends in the Kashar station instead of Tirana centre, forcing the passengers to transfer to other modes to reach the city, as the bus service from the Kashar station to the Tirana bus stations.

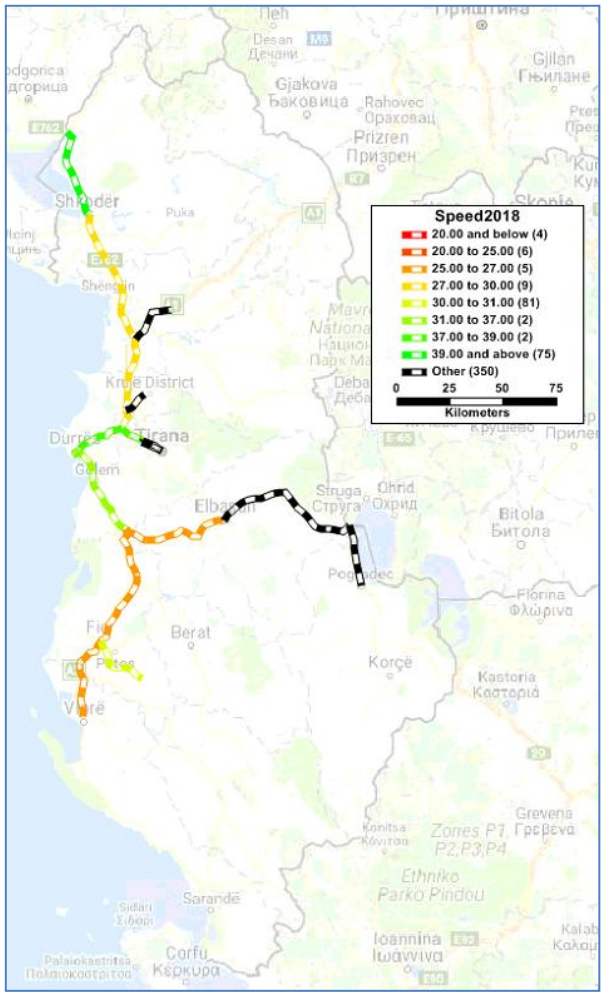
It also should be noted that the section *S-5: Elbasan-Pogradec* is currently out of service. Earth slides and rock falls have blocked the railway line, as detailed in the "*Feasibility study for the rehabilitation of the railway line Durres-Elbasan-Pogradec & new rail line link to border with FYROM*". As to the details, this study addresses the specific challenges of the rehabilitation and upgrade of the Durres-Pogradec railway link, and a new link between Lin (Albania) and the border with the former Yugoslav Republic of Macedonia, as well as a feasibility study, including preliminary design, on at least one section of the Rail Corridor VIII in the territory of Albania. These projects will be taken into account for the midterm rail network, analyzing its incidence and potential impacts on the Albanian traffic, both for passengers and goods.

A substantial renovation or rehabilitation in the station facilities has to be carried through, in accordance with the general objective of a railway network more accessible, identifiable and usable.

The definition of the transport network by road was mentioned above. To build the railway network graph the links that support the definition of the different lines must be incorporated. These links include information about distance and travel time and they are not allowed to be used by any mode of transport other than railway. However to build a road Public Transport network the most important step is the definition of the services both in road transport as in railway. The definition of the services contains the information of frequency of service, commercial speed, time spent to go in or out of the vehicle, the nodes containing the stops and the passing through nodes.

The next figure shows a preliminary classification of the rail network in terms of the commercial speed, with the inoperative segments represented in black.

Figure II - 68. TransCAD rail classification- speed



The next table summarizes the main attributes of the rail links introduced in TransCAD. The big amount of inactive kilometres in the *passenger & freight* type relates to the Elbasan-Pogradec segment, currently unavailable as stated before.

Table II - 49. TransCAD model – rail links summary

Type	Total Length (km)	Number of links
Passenger & Freight		
Active	269.4	15
Inactive	84.47	5
Only Freight		
Active	91.1	5
Inactive	0	0

The actual rail network clearly needs to be enhanced in order to become a strong competitor of the road, both private and public mode.

4.5. PUBLIC TRANSPORT

In order to successfully develop an integrated multimodal model, the public bus and rail services have been structured in accordance with each other. The main information compiled characterizes the services extent, frequency, capacity and commercial speed.

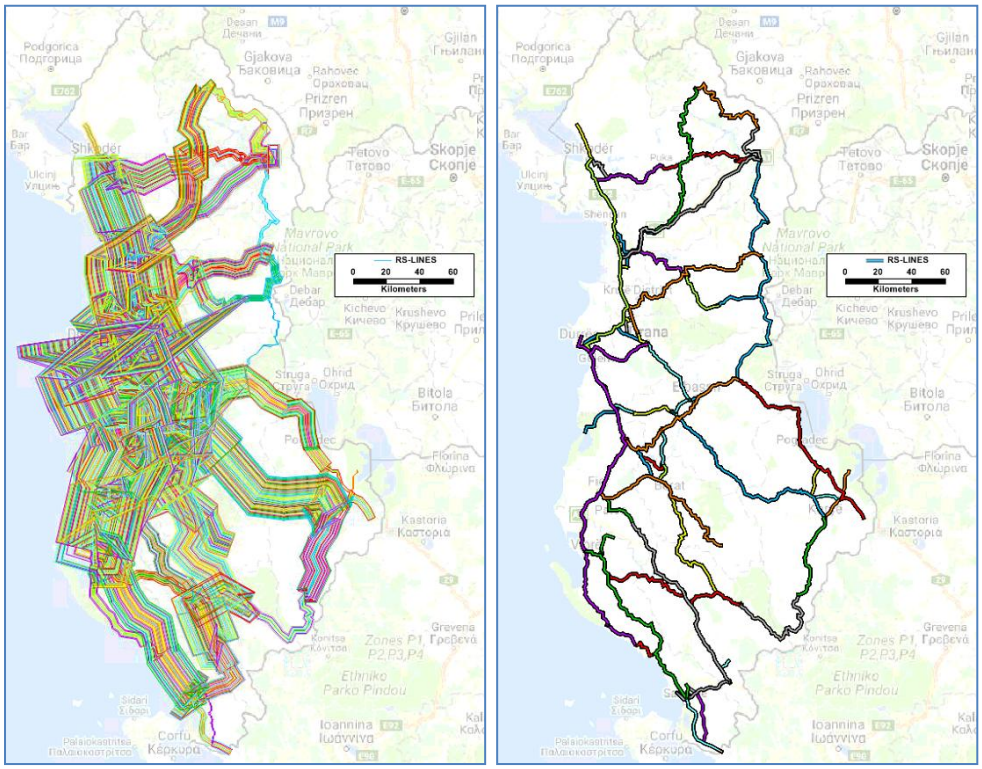
In order to distinguish between road and rail modes, an additional field called "mode" was added to the transport network, with value 1 for road and 2 for rail, with connectors being given value 99.

Figure II - 69. TransCAD model - public network

4.5.1. Interurban buses

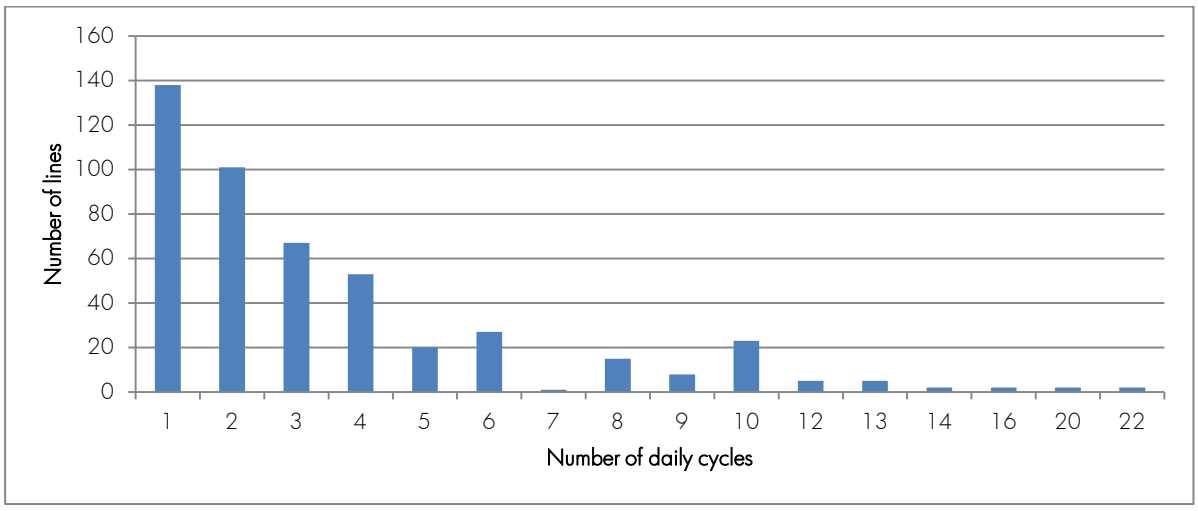
Nowadays, there is the need to adapt the interurban services for buses in order to optimize routes and the use of public funds. The Institute of Transport provided a list with the different services that are currently operating in the national territory. The Consultant translated these routes to the model, and carried out a preliminary study to identify the main overlaps. In the figure below can be seen how the Country is really well connected by bus, with a large amount of services covering almost every important City. Nevertheless, the right picture shows the overlapping issue that affects nearly every route.

Figure II - 70. TransCAD model - bus routes



Subsequent studies will be undertaken to establish a new hierarchy of the interurban lines. The actual model with overlaps limits the optimization of the resources, resulting in worse services to the travellers. The Consultant will study the potential and possibilities of the future concessional map, evaluating the feasibility of provide exclusiveness in the operation of each corridor to a certain agent. This model will allow major improvements in terms of operation and reliability standards. The room for improvement can be seen in the next chart, where the amount of lines with a small number of services stands out, which implies a lot of companies offering the same service.

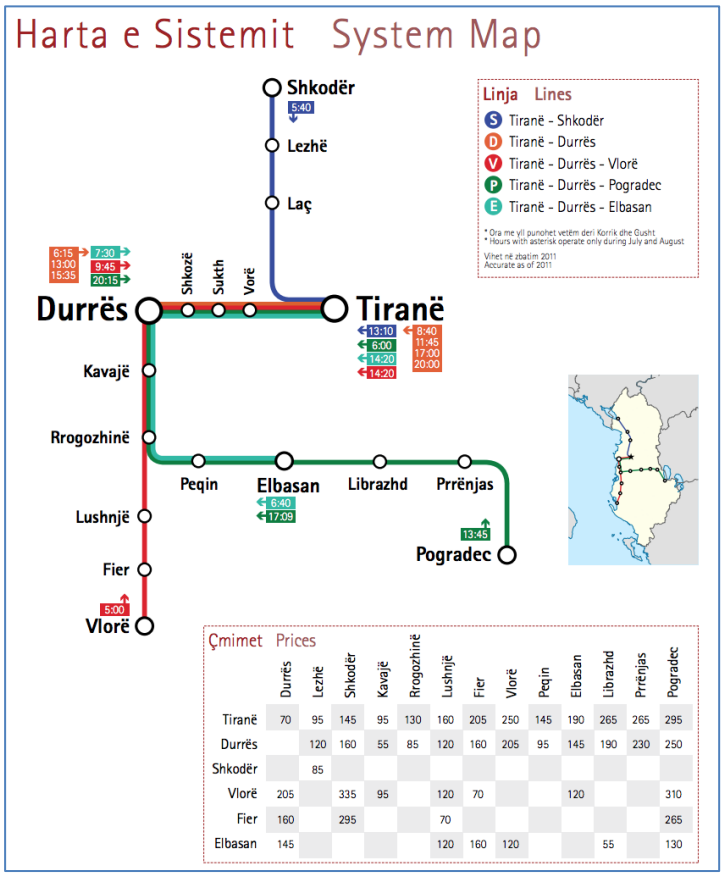
Figure II - 71. Distribution of lines by number of daily services



4.5.2. Rail services

As agreed in prior meetings with the stakeholders, the following scheme defines the services provided by the railway company. The frequencies and tickets will be introduced so the modal split can be calculated by the model.

Figure II - 72. Albanian Railways. Network and services



	Durrës	Lezhë	Shkodër	Kavajë	Rrogozhinë	Lushnjë	Fier	Vlorë	Peqin	Elbasan	Librazhd	Prrënjas	Pogradec
Tiranë	70	95	145	95	130	160	205	250	145	190	265	265	295
Durrës		120	160	55	85	120	160	205	95	145	190	230	250
Shkodër		85											
Vlorë	205		335	95		120	70			120			310
Fier	160		295			70							265
Elbasan	145					120	160	120			55		130

Source: Albanian Railways

The Consultant will carry out subsequent analysis to identify the main opportunities for improvement, being the connection with international corridors one of the main potential differences. Likewise, the connection of the capital Tirana with the rail network will suppose a dramatic change in the perspectives of passengers flow, since the actual transfer in Kashar eliminates the possibility of a seamless connection between Tirana and the main cities of Albania.

Table II - 50. TransCAD model – rail network coding

Line code	Line name	TransCAD code
S-1	Tirana-Shkoder	1001
D-1	Tirana-Durres	1002
V-1	Tirana-Durres-Vlora	1003
P-1	Tirana-Durres-Pogradec*	1004

Line code	Line name	TransCAD code
E-1	Tirana-Durres-Elbasan	1005
S-2	Shkoder-Tirana	1006
D-2	Durres-Tirana	1007
V-2	Vlora-Durres-Tirana	1008
P-2	Pogradec–Durres-Tirana	1009
E-2	Elbasan-Durres-Tirana	1010

4.6. MODELLING METHODOLOGY

Modelling methodology was reviewed to ensure its suitability with the expected results and the objective of the ANTP3. This checking was undertaken both for passengers and cargo models, considering the features, input parameters, formulations and procedures most appropriate in each case. In the case of the passenger model a particular review of the model development was made to check the application of the 4 model stages: trips generation, trips attraction, distribution, and assignment; considering the specifications or TransCAD. Likewise, in the cargo model a similar review was made considering also the classification of goods (minerals, fuels, building materials, agricultural products, beverages and others).

5. PASSENGER TRAFFIC ANALYSIS, MODELLING AND FORECASTS

5.1. ELEVATION OF THE SAMPLE. SURVEY MATRICES

To characterize the demand market within the network different types of surveys have been undertaken:

- Automatic and Manual Classified Traffic Volume Counts (ATC and MTC)
- Origin-Destination and Commodity Movement Survey (O/D)

Based on the surveys undertaken in the main roads, a O/D trips matrix for passenger transport has been constructed. The process to obtain the demand matrix for passenger transport starts building the origin destination matrix at each point surveyed. Once each matrix has been obtained and expanded, the final matrix is obtained by comparison between them in order to homogenize the relations observed, avoiding to overestimate the number of trips in each relationship.

To build the O/D matrix at each point, the first step is the elevation of the sample. In each point of survey, the number of vehicles registered in the surveys has been elevated to the number of vehicles registered in the counts taking into account the different types of vehicles: cars, passengers vans, buses and mini buses in the case of passenger vehicles.

In the survey process we have obtained two registered matrixes because the survey was undertaken during two days. In a first step complementary trips (trips with the same origin and destination, crossing two or more survey points) have been determined taking the average value. In the case of points not complementary the total trips of each matrix have been directly calculated. At the final step there are two different matrices (one per each day). The average matrix is considered as the first approach to the OD matrix.

The process have been carried out for each type of passenger vehicles, cars and buses. These first matrices have been assigned to the defined network and the results compared to the registered traffic. The aim is to obtain the best approach to the registered traffic making slight adjustments in the weights assigned to the individual matrices. Finally, using the estimation tool of TRANSCAD, the final matrices reflect the registered traffic with adequate accuracy. After building the OD trip matrix of each type of vehicles, the number of passengers in each TAZ is obtained by applying the observed occupancy of the vehicles in the survey.

The process followed at this step provides an estimation of the total number of passenger trips generated and attracted in the TAZ's. This number of passenger trips has to be explained by the generation and attraction models.

5.2. THE GENERATION AND ATTRACTION MODELS

The most common models are those that reflect the ratio between the number of passenger trips originated in, or proceeding to a particular sector, and the average socio-economic indicators in each sector. The fact is that a correlation can be established for each of the sectors between the explanatory variables (socio-economic characteristics) of these trips, and the starting and destination points of these trips.

The number of trips at different times and in different contexts of planning may be predicted using the expected development of the variables included in the model. The model of trips production in origin and destination points is based on the assignment to each zone of the study area of a capacity to produce trips and a capacity to receive trips, depending on variables by zones.

In order to select the variables to be taken into account in the model, the most usual ones have been tested. Population, number of vehicles, and number of enterprises were those that appeared disaggregated or with possibility of disaggregation. These variables were tested by means of linear regression analysis.

The variables used to explain the generation and attraction of internal trips are shown in the table below.

Table II - 51. Variables applied in the definition of the G A models

TAZ	Name	Pop 2018	pass_cars_2018	Enterprises	Production Level	Attraction Level
1	Tropoje	18,617	2,163	556	0	0
2	Mallakaster	25,999	2,953	805	0	0
3	Belsh	18,364	2,502	2,083	0	0
4	Berat	53,893	8,103	3,633	1	1
5	Devoll	25,482	2,351	2,364	0	0
6	Bulqize	27,551	3,314	656	0	0
7	Mat	24,364	1,751	755	0	0
8	Cerrik	25,842	3,521	1,499	0	0
9	Skrapar	10,330	792	617	0	0
10	Delvine	8,188	983	420	0	0
11	Divjake	32,909	3,788	3,062	0	0
12	Dropull	3,055	692	318	0	0
13	Durres	192,997	44,721	10,018	1	1
14	Elbasan	133,436	18,180	6,336	0	0
15	Kolonje	10,559	832	675	0	0
16	Fier	115,917	20,394	7,510	0	0
17	Finiq	11,347	1,874	423	0	0
18	Fushë Arrës	7,197	394	115	0	0
19	Gjirokaster	25,009	5,667	2,122	0	0
20	Gramsh	22,816	1,365	705	0	0
21	Himare	8,425	1,583	824	0	0
22	Kamez	122,909	27,767	2,919	0	0
23	Kavaje	47,297	4,113	2,404	0	0
24	Kelcyre	5,332	468	405	0	0
25	Klos	14,670	1,054	194	0	0
26	Konispol	8,885	1,736	660	0	0
27	Malesi e Madhe	29,957	3,806	2,315	0	0
28	Korça	72,484	8,615	4,929	0	0
29	Kruje	65,924	4,904	1,893	1	1
30	Has	15,235	2,002	321	0	0

TAZ	Name	Pop 2018	pass_cars_2018	Enterprises	Production Level	Attraction Level
31	Kuçove	28,871	4,809	1,470	0	0
32	Kukes	43,542	5,102	1,069	0	0
33	Kurbin	42,394	8,713	1,311	0	0
34	Lezha	60,107	11,875	3,453	0	0
35	Libohove	3,198	725	157	0	0
36	Librazhd	29,267	1,750	876	0	0
37	Lushnjë	80,374	9,252	7,114	0	0
38	Maliq	39,828	4,734	3,140	0	0
39	Memaliaj	9,295	1,098	311	0	0
40	Patos	22,057	3,881	890	0	0
41	Peqin	24,609	2,440	1,198	0	0
42	Permet	9,258	812	767	0	0
43	Diber	54,394	5,786	1,301	0	0
44	Pogradec	58,688	5,165	2,590	0	0
45	Poliçan	9,833	1,183	457	0	0
46	Prrenjas	24,213	1,448	504	0	0
47	Puke	10,758	588	272	0	0
48	Pustec	3,138	373	116	0	0
50	Roskovec	20,888	3,675	1,437	0	0
51	Mirdite	20,242	2,829	590	0	0
52	Rrogozhina	26,127	2,272	1,048	0	0
53	Sarandë	21,798	4,259	2,356	0	0
54	Selenice	17,669	3,240	606	0	0
55	Shijak	30,707	7,115	1,052	0	0
56	Shkoder	131,804	25,968	7,692	0	0
57	Tepelena	7,805	922	767	0	0
58	Tirana	810,572	183,121	46,948	0	0
59	Ura Vajgurore	24,504	3,684	2,586	0	0
60	Vau i Dejes	29,335	5,875	1,209	0	0
61	Vlora	112,969	20,716	6,657	0	0

TAZ	Name	Pop 2018	pass_cars_2018	Enterprises	Production Level	Attraction Level
62	Vora	30,094	6,799	972	1	0

The passengers produced outside the country have been associated to the different arrival and departure border crossing points and distributed in the same OD that reflects the starting OD matrix. So the arrivals in each border have been distributed as attractions in the internal TAZ and departures as origins in the internal TAZ.

Then the generation and attraction models explain the internal trips of the matrix and the external trips have been added to complete the generation and attraction vectors.

In the case of the generation model the best result was obtained by means of population, number of passenger cars and a variable that characterize the zones with a high level of trips produced, taking the value 1 for these zones and 0 for the rest.

The formulation of the generation model has the following expression:

$$G_i = 0.008182 \times POP_i + 0.4070759 \times CAR_i \times 8700 \times L_i + 258$$

Where:

POP_i is the population of the zone in the year modelled 2018

CAR_i is the number of passenger cars in the modelled year and zone

L_i is the variable to reflect the zones with a high level of production

G_i is the number of trips generated in the zone

The value of R-square obtained with this equation is 0.95

It has to be noted that Tirana and the nearest zones of Vora and Kamet have been analyzed in an aggregated way, because Tirana has variables too high in comparison with the other two. In order to avoid distortion in the zones with less size, we decided to group them and distribute the result proportionally to the observed register.

In the case of the attraction model the best result was obtained by means of population, number of enterprises and a variable that characterize the zones with a high level of trips attracted, taking the value 1 for these zones and 0 for the rest.

The formulation of the attraction model has the following expression:

$$P_i = 0.054657 \times POP_i + 0.587922 \times ENT_i \times 11{,}371 \times L_i - 524$$

Where:

POP_i is the population of the zone in the year modelled 2018

ENT_i is the number of enterprises in the modelled year and zone

L_i is the variable to reflect the zones with a high level of attraction

P_i is the number of trips attracted in the zone

The value of R-square obtained with this equation is 0.94

The obtained formulation has been applied to the zones of the area to estimate the number of trips generated and produced in the internal area. The total number of trips has to be completed by adding the external contribution.

The resultant vectors of generation and attractions do not match in totals. In order to satisfy the condition of generated trips equal to attracted trips, the vectors have to be balanced by applying a correction factor to both.

In this case both vectors are considered with the same reliability; in consequence the weight applied will be 0.5 to each of them. The result of the process is shown in the following table for the base year.

Table II - 52. G A vectors in the base year

TAZ	CODE	Generation_2018	Attraction_2018	TAZ	CODE	Generation_2018	Attraction_2018
Tropoje	1	1,366	878	Peqin	41	1,557	1,593
Mallakaster	2	1,704	1,359	Permet	42	375	427
Belsh	3	1,480	1,714	Diber	43	3,116	3,193
Berat	4	13,414	16,390	Pogradec	44	3,561	4,766
Devoll	5	646	2,340	Poliçan	45	846	291
Bulqize	6	1,866	1,354	Prrenjas	46	993	1,703
Mat	7	1,323	1,405	Puke	47	697	258
Cerrik	8	547	1,782	Pustec	48	338	247
Skrapar	9	692	430	Rinas	49	6,263	5,782
Delvine	10	415	197	Roskovec	50	512	1,442
Divjake	11	2,114	3,084	Mirdite	51	1,768	987
Dropull	12	415	424	Rrogozhina	52	1,535	1,558
Durres	13	32,236	29,918	Saranda	53	3,425	2,537
Elbasan	14	9,567	10,908	Selenica	54	469	7
Kolonje	15	763	462	Shijak	55	3,550	1,836
Fier	16	10,209	10,469	Shkoder	56	18,743	15,685
Finiq	17	379	348	Tepelena	57	859	456
Fushe Arres	18	345	454	Tirana	58	75,937	66,044
Gjirokaster	19	3,561	2,428	Ura Vajgurore	59	1,990	2,305
Gramsh	20	1,105	1,173	Vau i Dejes	60	641	1,793
Himare	21	433	444	Vlora	61	11,120	10,279
Kamez	22	4,736	8,084	Vora	62	6,811	1,892
Kavaje	23	2,560	3,602	Montenegro Hani Hotit	63	2,895	3,185
Kelcyre	24	343	14	Hani Hotit BC Montenegro	64	2,860	3,065
Klos	25	828	394	Morine BC Kosovo	65	2,426	2,159
Konispol	26	469	472	Qafe Morine BC Kosovo	66	130	103
Malesi e Madhe	27	1,037	2,788	Bllade BC Macedonia	67	50	138
Korça	28	5,459	6,913	Port of Shengjin	68	1	1
Kruje	29	13,719	17,287	Port of Durres	69	478	406
Has	30	457	508	Port of Vlora	70	242	265
Kuçove	31	2,503	1,906	Port of Saranda	71	24	596

TAZ	CODE	Generation_2018	Attraction_2018	TAZ	CODE	Generation_2018	Attraction_2018
Kukes	32	2,840	2,551	Qafbot BC Greece	72	26	7
Kurbin	33	5,013	3,267	Qafe Thane BC Macedonia	73	4,804	5,811
Lezha	34	7,202	6,180	Tushemisht BC Macedonia	74	77	59
Libohovë	35	385	269	Kapshtice BC Greece	75	3,825	6,144
Librazhd	36	1,807	2,110	Triurat BC Greece	76	0	0
Lushnjë	37	5,309	8,250	Greece	77	2,140	2,959
Maliq	38	732	3,478	Italy Port of Durres	78	227	407
Memaliaj	39	389	165	Port of Durres Other Countries	79	4	407
Patos	40	519	1,188	Kapshtice BC Turkey	80	326	219
						307,342	307,342

By projecting the variables of the model we can obtain the number of trips in the year of projection. The number of trips obtained in the base year has to be distributed between the origin and destination zones.

5.3. THE DISTRIBUTION MODEL

The trip distribution stage allocates the trip productions amongst destination zones according to the appropriate costs of travel and the model sensitivity parameters.

The trip distribution model developed use the following gravity model to distribute the number of trips between two zones proportionally to the number of trip productions in the production zone and trip destination in the destination zone, and inversely proportional to the travel time between the zones. This impedance is calculated by means of the network defined in TRANSCAD in each OD relation expressed in minutes as unit of time.

The trip distribution model has the following form:

$$P_{ij} = 3.797x10^{-5} \times G_i \times A_j \times t_{ij}^{-0.56892}$$

Where:

P_{ij} is the trips between OD zones

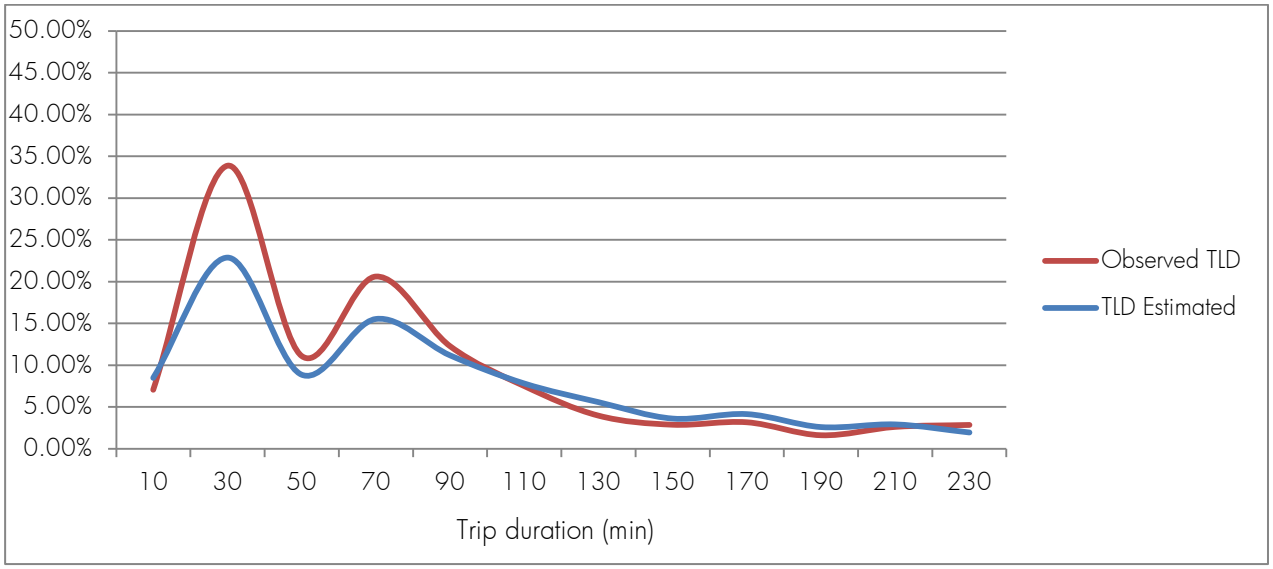
G_i is the number of trips produced in the origin zone

A_j is the number of trips attracted by the destination zone

t_{ij} is the travel time between OD zones

The distribution model explains how the trips are distributed within the transportation network. The measure of the adjustment quality is obtained by comparing the OTLD (Observed Trips Length Distribution) with ETLD (Estimated Trips Length Distribution). The observed Trips Distribution Length is a trip classification by duration of the journey based on the initial observed travel matrix from the surveys. The following figures show the goodness of the adjustment reached.

Figure II - 73. Comparison between TLD observed and TLD modelled. Total trips



As can be seen, in terms of total trips the Estimated Trip Length Distribution is close to the Observed Trip Length Distribution with a slight underestimation of the short distance trips.

A correlation of 0.95 has been achieved in comparison of TLD's, reflecting a good approach to trips distribution in the Albanian network.

The final passenger matrix is shown in the table below in terms of total passengers

Table II - 53. Origin Destination matrix in passenger/day for the Base year 2018 in all modes.

Zone	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Tropojë	0	6	6	71	11	8	7	6	2	1	12	2	112	40	3	42	2	5	13	5
2	Mallakastër	5	0	9	123	12	7	7	9	3	1	20	3	146	54	3	98	2	2	19	7
3	Belsh	4	6	0	118	9	5	5	16	2	1	16	2	119	68	2	55	1	2	10	7
4	Berat	37	81	113	0	89	54	53	86	32	9	174	18	1,275	475	20	721	15	18	118	57
5	Devoll	2	2	3	27	0	2	2	3	1	0	5	1	40	19	2	16	1	1	5	2
6	Bulqizë	7	8	9	93	13	0	20	8	3	1	17	2	161	55	3	55	2	3	15	7
7	Mat	4	5	6	62	9	14	0	6	2	1	11	2	117	39	2	37	1	2	10	5
8	Cërrik	1	2	6	32	3	2	2	0	1	0	6	1	45	34	1	19	0	1	3	3
9	Skrapar	2	4	4	62	5	3	3	4	0	1	8	1	59	22	1	28	1	1	7	3
10	Delvinë	1	2	2	22	3	2	2	2	1	0	4	2	30	11	1	15	5	1	10	2
11	Divjakë	5	11	13	146	13	8	8	14	3	1	0	3	209	79	3	98	2	3	17	9
12	Dropull	1	2	2	22	3	2	2	2	1	1	4	0	29	11	1	15	2	1	20	1
13	Durrës	79	129	153	1,717	174	127	134	162	40	16	338	33	0	981	38	1,072	27	41	209	109
14	Elbasan	22	38	70	512	65	35	35	97	12	5	102	10	785	0	13	317	8	11	62	43
15	Kolonjë	3	3	4	38	12	3	3	4	1	1	7	1	55	24	0	22	1	1	9	3
16	Fier	26	76	61	845	62	38	37	59	17	7	137	14	932	345	14	0	11	12	93	39
17	Finiq	1	2	2	20	3	2	1	2	1	2	3	2	27	10	1	13	0	1	9	1
18	Fushë Arrës	2	1	2	17	2	2	2	2	1	0	3	0	29	10	1	10	0	0	3	1
19	Gjirokastër	12	22	18	210	27	16	15	17	6	7	35	30	276	102	9	141	12	5	0	14
20	Gramsh	3	5	8	66	8	5	5	8	2	1	12	1	93	45	2	39	1	2	9	0
21	Himarë	1	3	2	27	3	2	2	2	1	1	5	1	35	13	1	19	1	1	6	2
22	Kamëz	7	11	16	137	17	12	14	17	3	1	26	3	377	117	4	84	2	4	18	11
23	Kavajë	6	11	14	153	13	9	9	16	3	1	32	3	342	86	3	99	2	3	16	9
24	Këlcyrë	1	2	2	20	3	2	1	2	1	0	3	1	27	10	1	13	1	1	9	1
25	Klos	3	3	4	40	6	14	12	4	1	0	7	1	71	24	1	24	1	1	6	3
26	Konispol	1	2	2	21	3	2	2	2	1	1	4	2	28	11	1	13	2	1	8	1
27	Malësi e Madhe	3	4	4	43	6	5	5	4	1	1	8	1	83	27	1	26	1	2	7	3
28	Korçë	16	21	26	253	159	22	20	26	7	3	46	7	368	177	18	150	6	7	42	20
29	Krujë	36	49	62	614	78	60	64	64	16	6	115	14	1,424	424	17	373	11	19	86	45
30	Has	3	2	2	23	3	2	2	2	1	0	4	1	39	13	1	13	1	1	4	2
31	Kuçovë	6	13	24	307	15	9	8	17	4	1	29	3	208	87	3	112	2	3	19	10
32	Kukës	12	11	13	133	18	14	15	13	4	2	24	3	248	82	4	79	3	6	21	10
33	Kurbin	12	16	20	199	25	22	26	21	5	2	37	4	474	139	5	121	4	7	27	15
34	Lezhë	19	24	29	292	37	33	37	30	8	3	55	7	660	199	8	177	5	11	41	22
35	Libohovë	1	2	2	21	3	2	2	2	1	1	4	3	28	11	1	14	1	1	18	1
36	Librazhd	5	7	11	92	17	7	7	12	2	1	17	2	137	95	3	56	2	2	12	7
37	Lushnjë	12	29	36	499	30	18	18	34	8	3	77	6	521	192	7	344	5	6	40	20
38	Maliq	2	3	3	32	16	3	3	3	1	0	6	1	46	23	2	19	1	1	5	3
39	Memaliaj	1	3	2	24	3	2	2	2	1	1	4	1	31	12	1	17	1	1	10	2
40	Patos	1	4	3	40	3	2	2	3	1	0	6	1	42	16	1	60	1	1	4	2
41	Peqin	3	7	11	101	9	5	5	15	2	1	23	2	155	72	2	66	1	2	10	7
42	Përmet	1	2	2	22	4	2	2	2	1	1	4	1	29	11	1	14	1	1	8	1
43	Dibër	15	14	15	162	24	24	23	14	5	2	29	5	265	93	6	95	4	7	28	12
44	Pogradec	10	14	18	169	58	14	13	18	5	2	31	4	248	127	9	101	3	5	26	14
45	Poliçan	2	5	5	97	6	3	3	5	3	1	9	1	71	26	1	36	1	1	7	3
46	Prrenjas	3	4	5	48	11	4	4	6	1	1	9	1	71	41	2	29	1	1	7	4
47	Pukë	4	3	3	33	5	4	4	3	1	0	6	1	59	20	1	20	1	3	5	2
48	Pustec	1	1	2	16	7	1	1	2	0	0	3	0	24	11	1	10	0	0	3	1
49	Rinas	12	18	23	230	27	21	23	25	6	2	44	5	674	169	6	142	4	7	30	17
50	Roskovec	1	3	3	54	3	2	2	3	1	0	6	1	41	15	1	43	1	1	4	2
51	Mirditë	5	6	7	75	10	8	9	8	2	1	14	2	161	50	2	45	1	3	11	6
52	Rrogozhinë	3	7	9	105	8	5	5	11	2	1	24	2	167	60	2	70	1	2	10	6
53	Sarandë	12	19	17	197	26	16	14	16	6	17	33	16	263	97	8	128	38	5	84	13
54	Selenicë	1	3	2	31	3	2	2	2	1	0	5	1	38	14	1	25	1	1	5	2
55	Shijak	7	11	13	142	15	11	12	13	3	1	28	3	630	89	3	89	2	4	17	9
56	Shkodër	65	71	83	850	113	94	101	83	23	10	156	20	1,705	547	25	512	17	38	127	64
57	Tepelenë	3	6	4	52	6	4	3	4	1	1	9	4	67	25	2	36	2	1	29	3
58	Tiranë	237	342	519	4,351	559	390	418	575	110	44	832	91	11,758	3,970	120	2,668	75	125	578	351
59	Ura Vajgurore	4	10	15	361	11	6	6	11	3	1	22	2	159	59	2	95	2	2	14	7
60	Vau i Dejës	2	2	3	26	4	3	3	3	1	0	5	1	53	17	1	16	1	1	4	2
61	Vlorë	32	76	64	830	74	46	44	62	19	9	138	18	994	368	17	826	16	15	117	45
62	Vorë	12	18	23	233	27	20	22	25	6	2	45	5	783	171	6	144	4	6	29	16
63	MontenegroHani	9	10	12	119	16	13	14	12	3	1	22	3	233	76	4	72	2	5	18	9
64	HHotitBCMonte	10	11	12	128	18	14	14	12	4	2	23	3	236	79	4	76	3	6	20	10
65	MorineBCKosovo	11	10	11	115	16	13	12	11	3	1	21	3	209	70	4	69	2	5	18	9
66	QafeMorineBCK	3	1	1	7	1	1	1	1	0	0	1	0	10	4	0	4	0	0	1	1
67	BlladeBCMacedo	0	0	0	3	0	1	0	0	0	0	0	0	4	1	0	1	0	0	0	0
68	PortofShengjin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	PortofDurres	1	1	2	20	2	1	2	2	0	0	4	0	111	11	0	12	0	0	2	1
70	PortofVlora	1	1	1	14	1	1	1	1	0	0	2	0	17	6	0	13	0	0	2	1
71	PortofSaranda	0	0	0	1	0	0	0	0	0	0	0	0	2	1	0	1	0	0	1	0
72	QafbotBCGreece	0	0	0	1	0	0	0	0	0	0	0	0	2	1	0	1	0	0	1	0
73	QafThaneBCMac	14	20	26	242	63	20	19	26	7	3	45	6	355	189	11	145	5	7	36	19
74	TushemishtBCMa	0	0	0	3	1	0	0	0	0	0	1	0	5	2	0	2	0	0	0	0
75	KapshticeBCGre	12	16	18	181	191	16	15	18	5	2	33	5	263	122	12	107	4	5	31	14
76	TriuratBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	7	13	11	125	17	10	9	10	4	5	21	26	166	61	5	83	8	3	89	8
78	ItalyPortofDu	0	1	1	10	1	1	1	1	0	0	2	0	50	5	0	6	0	0	1	1
79	P.ofD.Otherc	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
80	KapshticeBCTur	1	1	1	13	13	1	1	1	0	0	2	0	19	9	1	8	0	0	2	1
Tot		**869**	**1,352**	**1,710**	**16,340**	**2,331**	**1,354**	**1,402**	**1,784**	**429**	**195**	**3,075**	**425**	**29,826**	**10,871**	**463**	**10,436**	**348**	**454**	**2,415**	**1,168**

Zone	Name	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1	Tropojë	2	19	12	0	2	3	14	34	68	5	7	17	12	25	1	9	30	15	1	4
2	Mallakastër	3	21	18	0	2	3	12	37	74	3	12	12	12	24	2	11	55	17	1	12
3	Belsh	2	21	16	0	2	2	9	31	64	2	16	10	11	21	1	11	48	14	1	5
4	Berat	22	178	174	1	15	22	92	287	607	20	197	96	103	199	12	89	634	132	8	76
5	Devoll	1	7	5	0	1	1	4	56	24	1	3	4	4	8	0	5	12	20	0	2
6	Bulqizë	3	28	17	0	9	3	17	42	100	4	9	18	20	38	2	12	40	19	1	6
7	Mat	2	21	12	0	5	2	12	27	74	2	6	12	16	30	1	8	28	12	1	4
8	Cërrik	1	8	7	0	1	1	3	11	24	1	4	3	4	8	0	4	16	5	0	2
9	Skrapar	1	9	7	0	1	1	5	16	31	1	5	5	5	10	1	4	21	7	0	3
10	Delvinë	2	5	4	0	0	3	3	9	17	1	2	3	3	6	1	2	9	4	0	2
11	Divjakë	3	28	31	0	2	3	14	44	95	3	15	14	16	31	2	14	82	20	1	10
12	Dropull	1	4	3	0	0	2	3	9	16	1	2	3	3	5	2	2	10	4	1	2
13	Durrës	39	661	523	1	37	40	237	565	1,896	47	179	241	330	604	22	180	892	260	14	108
14	Elbasan	12	164	106	0	10	12	62	218	451	13	60	64	77	146	6	100	264	102	4	32
15	Kolonjë	1	9	6	0	1	2	5	40	33	1	4	6	5	11	1	6	16	17	1	2
16	Fier	18	128	132	1	11	16	65	200	432	14	84	67	73	141	9	64	513	92	7	133
17	Finiq	1	4	3	0	0	2	3	8	15	1	2	3	3	5	1	2	9	4	0	1
18	Fushë Arrës	1	5	3	0	1	1	4	8	18	1	2	4	3	7	0	2	7	4	0	1
19	Gjirokastër	10	42	33	1	4	15	25	86	151	6	21	26	25	50	18	22	90	38	6	15
20	Gramsh	2	16	12	0	1	2	8	26	51	2	7	8	9	17	1	8	30	12	1	4
21	Himarë	0	5	4	0	1	2	3	10	19	1	3	3	3	6	1	3	12	5	0	2
22	Kamëz	3	0	33	0	4	3	24	56	225	5	15	24	40	70	2	19	66	26	1	9
23	Kavajë	3	38	0	0	3	3	16	44	119	3	16	16	20	38	2	15	93	20	1	10
24	Këlcyrë	1	4	3	0	0	1	2	10	15	1	2	3	2	5	1	2	9	4	1	1
25	Klos	1	12	7	0	0	1	8	18	45	2	4	8	9	17	1	5	17	8	0	2
26	Konispol	1	4	3	0	0	0	3	9	16	1	2	3	3	5	1	2	9	4	0	1
27	Malësi e Madhe	1	15	8	0	1	1	0	19	51	2	4	9	11	26	1	5	19	9	0	3
28	Korçë	7	64	44	0	6	8	35	0	218	8	27	37	37	72	4	50	111	345	3	16
29	Krujë	16	296	136	0	17	17	111	251	0	22	63	112	161	291	9	79	288	115	6	38
30	Has	1	7	4	0	1	1	4	10	24	0	2	8	4	9	0	3	10	5	0	1
31	Kuçovë	4	30	29	0	2	3	15	48	98	3	0	15	17	32	2	16	110	22	1	12
32	Kukës	4	44	26	0	4	4	26	58	154	10	14	0	32	63	2	17	59	27	1	8
33	Kurbin	5	101	45	0	7	5	44	81	308	8	21	44	0	171	3	26	94	37	2	12
34	Lezhë	8	133	64	0	10	8	81	120	423	12	30	67	130	0	4	37	136	55	3	18
35	Libohovë	1	4	3	0	0	2	3	9	16	1	2	3	3	5	0	2	9	4	1	1
36	Librazhd	2	26	17	0	2	2	12	58	80	3	10	12	14	26	1	0	43	28	1	6
37	Lushnjë	8	68	83	0	5	7	32	99	224	7	55	33	38	73	4	33	0	46	3	31
38	Maliq	1	8	6	0	1	1	4	94	27	1	3	5	5	9	1	6	14	0	0	2
39	Memaliaj	1	5	4	0	0	1	3	9	17	1	2	3	3	5	1	2	11	4	0	2
40	Patos	1	6	6	0	0	1	3	9	20	1	4	3	3	7	0	3	21	4	0	0
41	Peqin	2	21	27	0	1	2	9	30	64	2	11	9	11	21	1	11	65	14	1	6
42	Përmet	1	4	3	0	0	1	3	12	16	1	2	3	3	5	1	2	9	5	1	1
43	Dibër	5	44	28	0	7	6	29	76	162	9	16	45	29	59	3	20	69	35	2	10
44	Pogradec	5	44	30	0	4	5	23	238	146	5	18	24	25	48	3	39	75	130	2	10
45	Poliçan	1	10	9	0	1	1	6	18	36	1	8	6	6	12	1	5	28	8	1	4
46	Prrenjas	1	13	9	0	1	1	6	40	42	1	5	7	7	14	1	16	22	20	0	3
47	Pukë	1	10	6	0	1	1	8	15	36	1	3	7	7	16	1	4	14	7	0	2
48	Pustec	0	4	3	0	0	1	2	21	14	1	2	2	2	5	0	3	7	9	0	1
49	Rinas	6	142	58	0	6	6	40	89	383	8	24	41	69	118	3	30	113	41	2	14
50	Roskovec	1	6	6	0	1	1	3	9	20	1	5	3	3	7	0	3	20	4	0	4
51	Mirditë	2	31	16	0	2	2	17	31	102	4	8	23	27	52	1	10	35	14	1	5
52	Rrogozhinë	2	20	35	0	1	2	9	27	65	2	11	9	11	21	1	10	77	13	1	7
53	Sarandë	14	40	31	0	4	22	25	82	146	6	20	26	24	48	9	21	83	36	4	13
54	Selenicë	1	6	5	0	1	1	3	10	20	1	3	3	3	6	0	3	14	5	0	2
55	Shijak	3	66	42	0	3	3	21	49	176	4	15	21	31	56	2	16	73	22	1	9
56	Shkodër	23	316	172	1	27	25	434	364	1,071	35	87	181	243	636	13	108	385	166	8	53
57	Tepelenë	2	10	8	0	1	3	6	20	36	1	5	6	6	12	2	5	23	9	3	4
58	Tiranë	108	4,405	1,053	3	113	112	743	1,829	6,459	142	490	752	1,138	2,025	60	642	2,106	846	39	272
59	Ura Vajgurore	3	22	22	0	2	3	11	34	74	2	32	11	12	24	1	11	91	16	1	10
60	Vau i Dejës	1	10	5	0	1	1	9	11	33	1	3	6	7	19	0	3	12	5	0	2
61	Vlorë	27	142	130	1	13	23	76	239	491	17	83	79	83	161	12	72	415	109	9	76
62	Vorë	6	164	63	0	6	6	39	87	361	7	24	39	65	112	3	29	117	40	2	15
63	MontenegroHani	3	42	24	0	4	4	46	52	146	5	12	25	32	79	2	15	54	24	1	7
64	HHotitBCMonte	4	42	24	0	4	4	78	57	146	5	13	26	29	67	2	16	56	26	1	8
65	MorineBCKosovo	3	37	22	0	4	4	22	51	130	8	12	75	26	51	2	14	51	23	1	7
66	QafeMorineBCK	0	2	1	0	0	0	1	3	6	0	1	2	1	2	0	1	3	1	0	0
67	BlladeBCMacedo	0	1	0	0	0	0	0	1	3	0	0	0	0	1	0	0	1	1	0	0
68	PortofShengjin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	PortofDurres	0	8	6	0	0	0	3	6	22	1	2	3	4	7	0	2	10	3	0	1
70	PortofVlora	0	2	2	0	0	0	1	4	8	0	1	1	1	3	0	1	7	2	0	1
71	PortofSaranda	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0
72	QafbotBCGreece	0	0	0	0	0	2	0	1	1	0	0	0	0	0	0	0	1	0	0	0
73	QafThaneBCMac	7	64	43	0	5	7	33	227	209	7	26	34	35	69	4	60	109	112	2	15
74	TushemishtBCMa	0	1	1	0	0	0	0	4	3	0	0	0	0	1	0	1	1	2	0	0
75	KapshticeBCGre	5	45	31	0	4	6	26	308	156	6	19	27	26	52	3	33	78	119	2	11
76	TriuratBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	6	25	20	0	3	10	15	53	91	4	13	16	15	30	10	13	53	23	3	9
78	ItalyPortofDu	0	4	3	0	0	0	1	3	10	0	1	1	2	3	0	1	5	1	0	1
79	P.ofD.Otherc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	KapshticeBCTur	0	3	2	0	0	0	2	22	11	0	1	2	2	4	0	2	6	9	0	1
Tot		**439**	**8,054**	**3,589**	**9**	**389**	**472**	**2,776**	**6,890**	**17,236**	**509**	**1,892**	**2,539**	**3,254**	**6,162**	**264**	**2,102**	**8,226**	**3,466**	**160**	**1,183**

Zone	Name	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	Tropojë	6	2	24	22	1	7	2	1	17	5	4	5	14	0	5	85	2	328	8	9
2	Mallakastër	9	3	18	25	2	9	1	1	20	12	4	9	18	0	7	73	4	378	15	7
3	Belsh	10	2	13	22	2	8	1	1	18	8	3	8	11	0	5	59	2	395	15	6
4	Berat	85	20	134	197	28	70	10	10	166	126	33	88	121	1	58	583	22	3,162	353	58
5	Devoll	2	1	6	21	0	5	0	1	6	2	1	2	5	0	2	24	1	125	3	2
6	Bulqizë	7	3	33	28	2	9	2	2	25	7	6	7	17	0	8	110	3	483	11	11
7	Mat	5	2	23	18	1	6	1	1	19	5	5	5	10	0	6	82	2	358	7	8
8	Cërrik	5	1	4	8	0	3	0	0	7	2	1	4	4	0	2	21	1	157	4	2
9	Skrapar	3	1	8	11	2	4	1	1	8	4	2	3	7	0	3	31	1	156	7	3
10	Delvinë	2	1	5	6	0	2	0	0	4	2	1	2	27	0	1	17	1	82	3	2
11	Divjakë	16	3	20	30	2	11	1	2	26	11	5	17	17	0	9	89	3	505	18	9
12	Dropull	2	1	5	6	0	2	0	0	4	2	1	2	12	0	1	17	2	80	3	2
13	Durrës	177	36	296	388	27	140	24	20	652	130	96	189	218	1	345	1,574	39	11,516	209	156
14	Elbasan	66	11	83	160	8	65	6	7	131	39	24	55	65	0	39	404	12	3,110	62	40
15	Kolonjë	3	2	9	21	1	6	1	1	8	3	2	3	9	0	3	34	2	169	4	3
16	Fier	65	16	93	138	12	49	7	7	119	117	24	69	92	1	42	410	18	2,271	109	41
17	Finiq	2	1	4	5	0	2	0	0	4	2	1	1	32	0	1	16	1	74	2	2
18	Fushë Arrës	1	1	5	5	0	2	1	0	4	1	1	1	3	0	1	25	1	86	2	3
19	Gjirokastër	16	14	42	53	4	18	3	3	38	18	9	15	92	0	13	155	23	748	25	16
20	Gramsh	6	2	12	18	1	7	1	1	14	5	3	6	9	0	4	50	2	293	8	5
21	Himarë	2	1	5	7	0	2	0	0	5	2	1	2	10	0	2	19	1	94	3	2
22	Kamëz	14	3	28	39	2	15	2	2	78	10	11	13	19	0	21	166	3	2,457	16	16
23	Kavajë	20	3	21	31	2	11	2	2	37	11	6	26	17	0	15	104	3	674	19	10
24	Këlcyrë	1	3	4	6	0	2	0	0	4	2	1	1	7	0	1	15	2	72	2	2
25	Klos	3	1	14	12	1	4	1	1	11	3	3	3	7	0	3	49	1	215	5	5
26	Konispol	2	1	5	6	0	2	0	0	4	2	1	2	13	0	1	17	1	78	2	2
27	Malësi e Madhe	4	1	11	13	1	4	1	1	14	3	3	4	7	0	4	140	1	254	5	10
28	Korçë	22	10	56	244	5	52	4	12	56	19	12	20	44	0	17	219	8	1,168	30	22
29	Krujë	55	15	136	172	10	62	11	9	279	47	46	55	91	0	73	742	16	4,752	73	74
30	Has	2	1	8	7	0	2	0	0	6	2	2	2	4	0	2	26	1	115	3	3
31	Kuçovë	14	3	21	33	3	12	2	2	27	19	5	15	19	0	9	94	4	556	48	9
32	Kukës	11	4	52	39	2	14	3	2	41	10	14	11	22	0	12	173	4	759	16	17
33	Kurbin	18	5	47	55	3	20	4	3	96	15	23	18	29	0	24	322	5	1,601	24	31
34	Lezhë	26	7	72	82	5	29	7	4	125	22	34	26	44	0	33	641	8	2,165	35	62
35	Libohovë	2	1	4	6	0	2	0	0	4	2	1	2	10	0	1	16	2	77	2	2
36	Librazhd	9	2	17	46	2	24	1	2	22	7	4	8	13	0	7	76	2	478	11	8
37	Lushnjë	43	7	45	69	6	25	3	4	64	36	12	51	40	0	23	207	8	1,204	70	21
38	Maliq	3	1	7	36	1	7	0	1	7	2	2	3	5	0	2	27	1	147	4	3
39	Memaliaj	2	1	4	6	0	2	0	0	4	2	1	2	7	0	1	17	3	83	3	2
40	Patos	3	1	4	6	1	2	0	0	5	5	1	3	4	0	2	19	1	104	5	2
41	Peqin	0	2	13	21	1	8	1	1	19	8	3	19	11	0	7	59	2	397	13	6
42	Përmet	2	0	5	7	0	2	0	0	4	2	1	2	7	0	1	17	2	80	3	2
43	Dibër	13	5	0	50	3	17	3	3	41	13	11	12	31	0	12	179	5	783	19	18
44	Pogradec	15	6	36	0	3	46	3	6	38	13	8	14	28	0	12	145	5	802	20	14
45	Poliçan	4	1	9	12	0	4	1	1	10	5	2	4	8	0	3	36	1	184	10	4
46	Prrenjas	5	1	10	37	1	0	1	1	11	4	2	4	7	0	3	41	1	239	6	4
47	Pukë	3	1	9	10	1	3	0	1	9	3	2	3	6	0	3	56	1	177	4	7
48	Pustec	1	1	4	11	0	3	0	0	4	1	1	1	3	0	1	14	0	74	2	1
49	Rinas	22	5	47	62	4	23	4	3	0	18	18	23	32	0	38	278	6	2,414	28	27
50	Roskovec	3	1	4	6	1	2	0	0	5	0	1	3	4	0	2	19	1	103	8	2
51	Mirditë	7	2	21	21	1	8	2	1	29	6	0	7	12	0	8	116	2	515	9	11
52	Rrogozhinë	19	2	12	19	1	7	1	1	19	8	3	0	10	0	7	59	2	360	14	6
53	Sarandë	15	10	42	52	4	17	3	3	37	17	8	14	0	0	12	151	12	719	23	15
54	Selenicë	2	1	5	7	1	2	0	0	5	3	1	2	5	0	2	20	1	100	4	2
55	Shijak	15	3	25	34	2	12	2	2	68	11	9	15	18	0	0	140	3	1,143	17	14
56	Shkodër	73	23	217	246	15	86	24	13	292	65	75	72	136	1	83	0	23	5,336	100	267
57	Tepelenë	4	3	10	13	1	4	1	1	9	5	2	4	17	0	3	37	0	181	6	4
58	Tiranë	462	102	894	1,284	72	478	73	64	2,385	332	315	416	609	2	639	5,030	107	0	521	498
59	Ura Vajgurore	11	2	16	24	3	8	1	1	20	18	4	12	14	0	7	70	3	387	0	7
60	Vau i Dejës	2	1	7	8	0	3	1	0	9	2	2	2	4	0	3	83	1	164	3	0
61	Vlorë	63	20	114	162	13	57	8	9	132	86	27	64	130	1	45	479	23	2,528	102	48
62	Vorë	23	5	45	61	4	22	4	3	191	18	17	24	31	0	50	265	6	2,741	28	26
63	MontenegroHani	10	3	31	35	2	12	3	2	39	9	10	10	19	0	11	427	3	723	14	28
64	HHotitBCMonte	11	4	34	38	2	13	3	2	38	10	10	10	22	0	11	304	4	718	15	24
65	MorineBCKosovo	10	3	44	34	2	12	2	2	34	9	11	9	20	0	10	145	3	635	13	14
66	QafeMorineBCK	1	0	2	2	0	1	0	0	2	1	0	0	1	0	0	8	0	31	1	1
67	BlladeBCMacedo	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	3	0	12	0	0
68	PortofShengjin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	PortofDurres	2	0	3	4	0	2	0	0	7	1	1	2	3	0	4	18	0	131	2	2
70	PortofVlora	1	0	2	3	0	1	0	0	2	1	0	1	2	0	1	8	0	42	2	1
71	PortofSaranda	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	5	0	0
72	QafbotBCGreece	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5	0	0
73	QafThaneBCMac	22	7	50	212	4	80	4	7	55	19	12	20	39	0	17	206	7	1,162	28	21
74	TushemishtBCMa	0	0	1	9	0	1	0	0	1	0	0	0	1	0	0	3	0	15	0	0
75	KapshticeBCGre	15	7	41	129	3	32	3	8	40	14	9	14	33	0	12	158	6	823	21	16
76	TriuratBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	9	8	26	33	2	11	2	2	23	11	5	9	62	0	8	94	10	452	15	9
78	ItalyPortofDu	1	0	2	2	0	1	0	0	4	1	1	1	1	0	2	9	0	63	1	1
79	P.ofD.Otherc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
80	KapshticeBCTur	1	1	3	9	0	2	0	1	3	1	1	1	2	0	1	11	0	59	2	1
Tot		**1,591**	**424**	**3,183**	**4,755**	**283**	**1,698**	**253**	**242**	**5,765**	**1,437**	**981**	**1,552**	**2,526**	**7**	**1,826**	**15,638**	**457**	**65,833**	**2,298**	**1,789**

Zone	Name	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	Tot
1	Tropojë	46	5	15	17	15	4	1	0	1	1	3	0	27	0	32	0	16	1	1	1	1,367
2	Mallakastër	88	6	13	14	11	1	1	0	2	2	4	0	31	0	33	0	22	2	1	1	1,708
3	Belsh	52	5	11	11	8	0	1	0	1	1	2	0	28	0	27	0	12	1	1	1	1,486
4	Berat	636	51	104	111	83	4	6	0	13	12	25	0	249	2	255	0	138	13	13	8	13,457
5	Devoll	18	2	4	5	4	0	0	0	0	0	1	0	20	0	83	0	6	0	0	3	647
6	Bulqizë	59	7	20	21	15	1	2	0	2	1	3	0	35	0	38	0	18	2	2	1	1,871
7	Mat	40	6	14	15	10	0	1	0	1	1	2	0	23	0	25	0	12	1	1	1	1,327
8	Cërrik	18	2	4	4	3	0	0	0	0	0	1	0	10	0	9	0	4	0	0	0	546
9	Skrapar	28	2	6	6	5	0	0	0	1	1	1	0	13	0	15	0	8	1	1	0	696
10	Delvinë	18	1	3	3	3	0	0	0	0	0	5	0	7	0	9	0	14	0	0	0	415
11	Divjakë	88	8	16	17	12	1	1	0	2	2	4	0	38	0	38	0	20	2	2	1	2,119
12	Dropull	17	1	3	3	3	0	0	0	0	0	2	0	7	0	8	0	34	0	0	0	415
13	Durrës	1,026	231	274	275	202	9	13	0	100	20	45	1	493	4	499	0	247	96	107	16	32,346
14	Elbasan	304	41	71	73	54	3	4	0	8	6	13	0	210	2	184	0	73	8	8	6	9,600
15	Kolonjë	25	2	6	7	5	0	0	0	1	0	2	0	23	0	32	0	11	1	1	1	763
16	Fier	741	37	73	77	58	3	4	0	10	14	19	0	175	2	177	0	107	10	9	6	10,247
17	Finiq	17	1	3	3	2	0	0	0	0	0	6	0	7	0	8	0	12	0	0	0	379
18	Fushë Arrës	11	1	4	5	3	0	0	0	0	0	1	0	6	0	7	0	3	0	0	0	344
19	Gjirokastër	160	12	28	31	23	1	2	0	3	3	19	0	66	1	78	0	176	3	3	3	3,575
20	Gramsh	39	4	9	10	7	0	0	0	1	1	2	0	23	0	23	0	11	1	1	1	1,112
21	Himarë	25	1	3	4	3	0	0	0	0	0	2	0	8	0	9	0	8	0	0	0	432
22	Kamëz	83	28	28	28	20	1	1	0	4	2	4	0	50	0	49	0	21	4	4	2	4,750
23	Kavajë	88	12	18	19	14	1	1	0	3	2	3	0	39	0	38	0	19	4	3	1	2,569
24	Këlcyrë	15	1	3	3	2	0	0	0	0	0	1	0	7	0	9	0	9	0	0	0	343
25	Klos	25	3	9	9	7	0	1	0	1	0	1	0	15	0	16	0	8	1	1	1	831
26	Konispol	17	1	3	3	3	0	0	0	0	0	3	0	7	0	9	0	11	0	0	0	371
27	Malësi e Madhe	27	4	19	32	8	0	0	0	1	1	1	0	16	0	17	0	8	1	1	1	1,038
28	Korçë	161	17	39	43	32	2	2	0	4	3	9	0	205	3	381	0	51	4	4	12	5,478
29	Krujë	380	80	129	128	94	4	6	0	15	7	19	0	218	2	222	0	102	15	14	7	13,765
30	Has	15	2	5	5	6	0	0	0	0	0	1	0	9	0	10	0	5	0	0	0	457
31	Kuçovë	99	8	17	18	13	1	1	0	2	2	4	0	42	0	42	0	22	2	2	1	2,510
32	Kukës	84	12	30	31	74	1	2	0	3	2	5	0	49	0	53	0	25	3	2	2	2,852
33	Kurbin	123	28	53	49	36	1	2	0	5	2	6	0	70	1	71	0	33	5	5	2	5,030
34	Lezhë	182	36	101	86	54	2	3	0	7	4	9	0	104	1	107	0	49	7	7	3	7,225
35	Libohovë	16	1	3	3	2	0	0	0	0	0	2	0	7	0	8	0	20	0	0	0	384
36	Librazhd	56	7	13	14	11	1	1	0	1	1	3	0	64	1	47	0	15	1	1	2	1,815
37	Lushnjë	250	20	37	38	29	1	2	0	5	5	8	0	88	1	87	0	46	5	5	3	5,322
38	Maliq	20	2	5	5	4	0	0	0	0	0	1	0	28	0	40	0	6	0	0	1	732
39	Memaliaj	19	1	3	3	3	0	0	0	0	0	1	0	7	0	8	0	10	0	0	0	390
40	Patos	31	2	3	4	3	0	0	0	0	1	1	0	8	0	8	0	5	0	0	0	519
41	Peqin	57	6	10	11	8	0	1	0	2	1	2	0	27	0	26	0	12	2	2	1	1,566
42	Përmet	16	1	3	3	3	0	0	0	0	0	1	0	8	0	11	0	9	0	0	0	375
43	Dibër	105	12	32	35	38	2	4	0	3	2	6	0	62	1	70	0	34	3	3	2	3,128
44	Pogradec	106	11	26	28	21	1	1	0	3	2	6	0	188	5	156	0	31	3	2	5	3,572
45	Poliçan	35	3	6	7	5	0	0	0	1	1	2	0	15	0	16	0	9	1	1	1	850
46	Prrenjas	30	3	7	8	6	0	0	0	1	1	2	0	57	0	31	0	8	1	1	1	997
47	Pukë	21	3	9	10	6	0	0	0	1	0	1	0	12	0	13	0	6	1	1	0	701
48	Pustec	10	1	3	3	2	0	0	0	0	0	1	0	11	0	18	0	3	0	0	1	336
49	Rinas	140	58	48	46	34	1	2	0	7	3	6	0	79	1	78	0	36	7	7	3	6,286
50	Roskovec	28	2	3	4	3	0	0	0	0	1	1	0	8	0	8	0	5	0	0	0	512
51	Mirditë	47	8	20	19	18	1	1	0	2	1	2	0	27	0	28	0	13	2	2	1	1,779
52	Rrogozhinë	58	6	10	11	8	0	1	0	2	1	2	0	25	0	24	0	12	2	2	1	1,539
53	Sarandë	161	11	28	31	23	1	2	0	3	3	76	0	65	1	75	0	112	3	3	2	3,433
54	Selenicë	41	2	4	4	3	0	0	0	0	1	1	0	8	0	9	0	6	0	0	0	469
55	Shijak	85	27	24	24	18	1	1	0	6	2	4	0	43	0	43	0	21	6	6	1	3,560
56	Shkodër	535	85	544	384	151	7	9	0	18	10	28	0	309	3	326	0	152	18	17	10	18,805
57	Tepelenë	41	3	7	7	6	0	0	0	1	1	4	0	16	0	18	0	26	1	1	1	862
58	Tiranë	2,662	827	867	854	625	27	38	0	120	52	125	2	1,648	15	1,594	0	686	122	118	51	76,166
59	Ura Vajgurore	80	6	13	13	10	1	1	0	2	2	3	0	30	0	30	0	16	2	2	1	1,994
60	Vau i Dejës	17	3	11	10	5	0	0	0	1	0	1	0	10	0	10	0	5	1	1	0	647
61	Vlorë	0	40	86	92	69	4	5	0	10	67	27	0	204	2	213	0	135	10	10	7	11,160
62	Vorë	141	0	45	44	32	1	2	0	8	3	6	0	78	1	76	0	35	8	8	2	6,836
63	MontenegroHani	75	11	0	46	21	1	1	0	2	1	4	0	44	0	46	0	22	2	2	1	2,900
64	HHotitBCMonte	82	11	46	0	22	1	1	0	2	2	4	0	47	0	51	0	24	2	2	2	2,865
65	MorineBCKosovo	74	10	26	27	0	1	1	0	2	1	4	0	43	0	47	0	22	2	2	1	2,431
66	QafeMorineBCK	4	0	1	2	1	0	0	0	0	0	0	0	3	0	3	0	1	0	0	0	127
67	BlladeBCMacedo	2	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	43
68	PortofShengjin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	PortofDurres	12	3	3	3	2	0	0	0	0	0	1	0	6	0	6	0	3	1	1	0	473
70	PortofVlora	57	1	1	2	1	0	0	0	0	0	0	0	3	0	4	0	2	0	0	0	234
71	PortofSaranda	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	19
72	QafbotBCGreece	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	21
73	QafThaneBCMac	152	16	37	40	30	2	2	0	4	3	8	0	0	2	173	0	43	4	4	6	4,824
74	TushemishtBCMa	2	0	1	1	0	0	0	0	0	0	0	0	3	0	3	0	1	0	0	0	70
75	KapshticeBCGre	116	12	29	31	24	1	2	0	3	2	7	0	127	1	0	0	38	3	3	23	3,833
76	TriuratBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	94	7	17	19	14	1	1	0	2	2	13	0	40	0	48	0	0	2	2	2	2,148
78	ItalyPortofDu	6	1	2	2	1	0	0	0	0	0	0	0	3	0	3	0	1	0	1	0	227
79	P.ofD.Otherc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
80	KapshticeBCTur	8	1	2	2	2	0	0	0	0	0	0	0	9	0	52	0	3	0	0	0	319
Tot		**10,249**	**1,882**	**3,174**	**3,057**	**2,156**	**96**	**134**	**0**	**403**	**262**	**592**	**3**	**5,791**	**52**	**6,122**	**0**	**2,952**	**403**	**404**	**214**	**307,342**

5.4. ASSIGNMENT TO THE NETWORK. CALIBRATION OF THE ASSIGNED RESULTS

The process of calibration consists of the comparison of the traffic observed and the number of vehicles assigned. The assignment has been carried out with the "all or nothing" method. This method is considered valid when a global network for a Country is been developed. Once the model is methodological ready, the results of the existing situation were properly calibrated based on a precise representation of the real traffics

After the calibration and the achievement of acceptable coefficient of adjustment, the transport model was validated, as considering that it represents the transport demand in reliable conditions and in alignment with the transport infrastructure supply

The passenger matrix obtained in previous stages has to be disaggregated in the different types of passengers vehicles by applying the occupancy registered in the survey process. The registered occupancy is shown in the following table.

Table II - 54. Occupancy in passengers by type of vehicle and % of share.

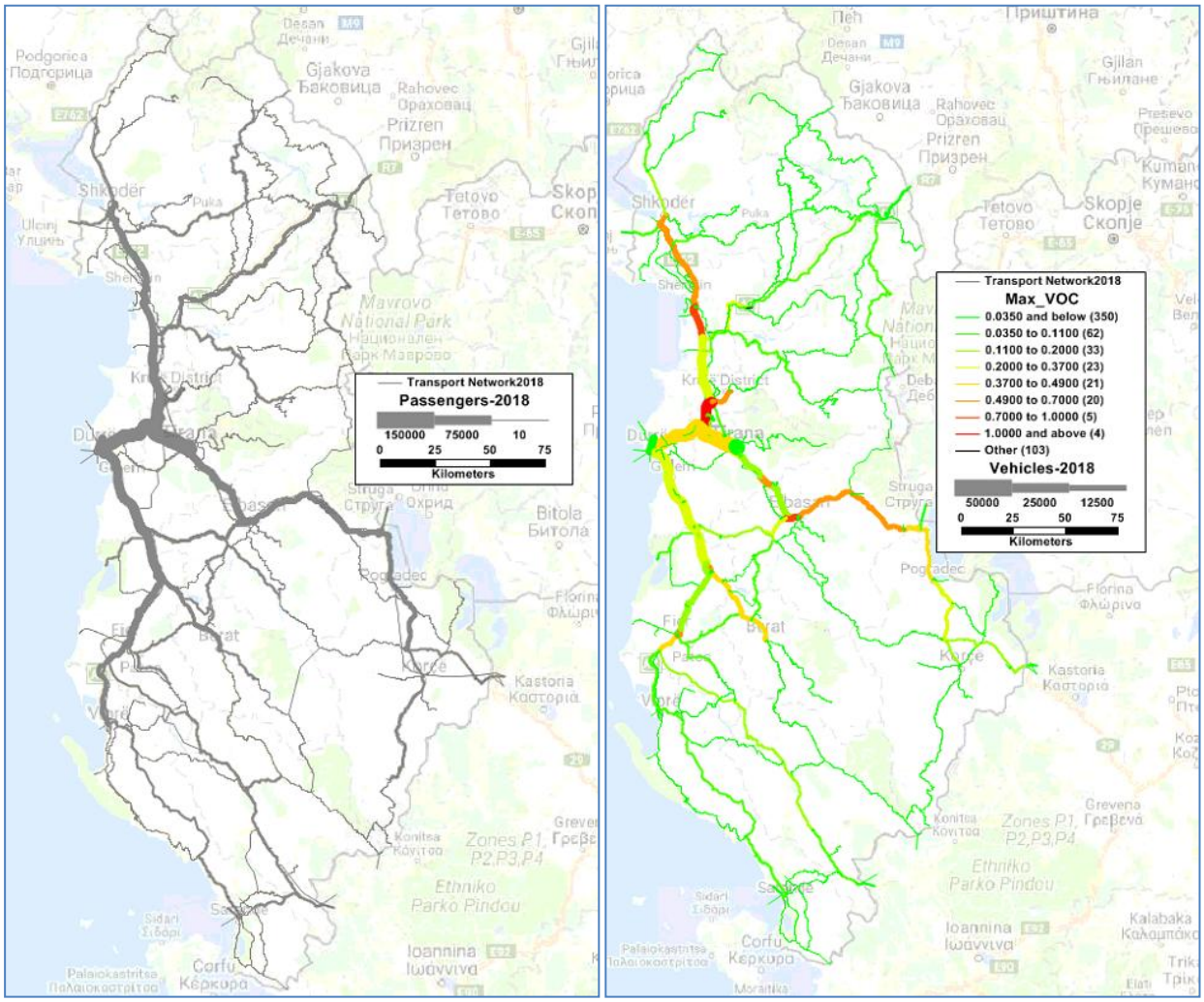
Type of vehicle	Occupancy	% Share
Cars	*2.11*	*0.84*
Station Wagon	*2.5*	*0.14*
Van	*2.3*	*0.02*
Weighted Occupancy	2.17	
Mini buses	20.97	0.52
Buses	38.7	0.48

Previously to the assignment process, the different matrices for each type of vehicle have to be obtained. Car passenger matrix is built by applying the observed share of passenger cars in the network. The total number of passengers going from every origin to its destination by car is taken from the observed matrix, applying the proportion of passenger cars in each relationship. Once the matrix of passengers travelling by car is obtained, the difference between total passengers and those travelling by car conforms the passenger matrix by bus.

The matrix of passengers by car is transformed in a trip matrix of vehicles by dividing it by the occupancy observed from the table above. This matrix is assigned to the network and the result compared to the traffic registered.

In a similar way, the passenger matrix by bus is disaggregated in passengers by mini buses and passengers by bus using the observed percentage of share in each type of vehicle. The matrices resulting are transformed in trips matrices of vehicles by applying the occupancy registered from the table above. Both matrices have been added and assigned to the network and the result compared to the current registry of buses from the counts. The result obtained reflects a good correlation of 0.91 in cars and 0.87 in buses, and a percentage of average deviation of 6%.

Figure II - 74. Total daily (passenger and vehicles) flow in the Base Year 2018.



It can be seen how the main problems occur in the Tirana-Durres zone, along with the northern segment of the Adriatic-Ionian Corridor and the southeastern connection with Greece and FYROM. All these bottlenecks are considered in the investment plan, with new constructions and rehabilitation of existing roads. Moreover, the enhancement of the bus and rail public services will add capacity to the road, aiming at creating an impact in the modal split of the Country.

5.5. CURRENT TRANSPORT PERFORMANCE – BASE YEAR SCENARIO

Once the transport model is calibrated and validated for the existing situation, the performance of the network in the base year modelled is compared with the performances obtained in the last version of the plan. For this analysis, a series of parameters have been used, as usual in every transport planning project.

Table II - 55. Total number of passengers and general performances in the Base year 2018. Comparison with the previous versions the Plan

	2010 ANTP 1	2014 ANTP 2	Base year 2018 ANTP 3
Passengers	210,070	247,918	307,426
Passengers x Km	21,735,767	23,100,000	32,855,095
Average trip length in km.	103	93.2	107

In this version of the Plan, the resulting growth of the number of passengers is set in 5.5% annually in the period 2014-2018 and 4.8% from 2010. At the same time the number of passengers x Km had an annual growth of 9.2% in the period 2014-2018 due to a continuous increase of the trip distance.

Regarding the number of passengers by type of vehicle the increasing in passengers by car have experienced an annual increase of 9% in the period 2010-2018, and a continuous growth of 10.8% in number of passenger cars in the Albanian roads. People travelling using minibuses have experienced a slight annual decrease of 1.8% in the same period. The decrease showed in the number of mini buses is close to the 14% due to an increase in occupancy of this type of vehicle. On the other hand, the number of passengers travelling by bus has increased 2% annually during 2010 to 2018 with a reduction in the number of vehicles of 3.5% increasing therefore the occupancy. The following table shows a summary of the results obtained.

Table II - 56. Total number of passengers and number of vehicles by type in the Base year 2018. Comparison with the previous updates of the Plan

	2010 ANTP 1		Base year 2018 ANTP 3	
Type of vehicle	Number of vehicles	Number of passengers	Number of vehicles	Number of passengers
Passenger Car	39,862	95,669	90,837	190,843
Mini bus	7,598	56,989	2,352	49,329
Bus	2,324	57,412	1,738	67,254
Total passengers	49,784	210,070	94,927	307,426

5.6. ECONOMIC AND TRAFFIC FORECAST – FUTURE SCENARIOS

The socio economic analysis undertaken allows to estimate the projection of the different variables used to explain the model and to estimate the trips production. These socio economic variables are population, number of cars and number of enterprises. To estimate the population growth in Albania some assumptions have been taken into account, but they are not in line with the expected growth from INSTAT. In fact, the figures provided by INSTAT show discrepancies in the number of inhabitants in Albania. The population by municipalities from 2011 census is 2,800,138 inhabitants, while the population in 2018 estimated by INSTAT is 2,870,324 inhabitants. This represents a slight 0.35% of growth in the period. However, population aggregated by regions

from INSTAT shows 2,907,368 inhabitants in 2011, which is different from the numbers in the census. If we compare the two figures from INSTAT there is a slight decrease of 0.17% in the population aggregated by regions. Considering that, in general terms, a continuous decrease in population is not a usual situation, as conservative hypothesis we have considered a population growth of 0.35% taking into account the population in 2011 from the census and the population in 2018 by regions coming from INSTAT.

The evolution of the Motorization Index has been estimated following a logistic function adjusted by the historical series 2012-2017 and taking as a saturation value 450 vehicles per 1,000 inhabitants.

This type of function has the following expression.

Table II - 57. Logistic function to estimate the motorization index

$$S = \frac{S}{1 + \left(\frac{a}{b^{An}}\right)}$$	
$a = e^{p}$	$b = e^{q}$
$p = (A_0 \cdot q + Co)$	$q = \frac{Cf - Co}{A_0 - A_f}$
$Co = \ln\left(\frac{S}{MOT_o} - 1\right)$	$Cf = \ln\left(\frac{S}{MOT_f} - 1\right)$
A0: First serial year	S: Saturation
Af: Final serial year	MOT0: Motorization for the first serial year
An: Projected year	MOTf: Motorization for the final serial year

The number of vehicles in the projected year is obtained by applying the new motorization index to the projected population.

The projected number of enterprises has been estimated by means of the evolution observed in the ratio of enterprises by 1,000 inhabitants. The number of enterprises has been estimated by applying the result of the projected ratio to the population expected.

Regarding the external trips estimation, the evolution expected of the number of visitors accessing or leaving the Country by the different border points is based on the registered evolution of the passengers at the border crossings. The following table summarizes the evolution of visitors in the last five years by prefectures and mode of transport.

Table II - 58. Total number of visitors in the last five years by prefecture and mode of transport

			TOTAL (I+II+III)	I BY AIR	1 Tirana (Rinas)	II BY SEA	1 Durres	2 Lezha	3 Vlora	III BY LAND	1 Diber	2 Gjirokaster	3 Korça	4 Kukes	5 Shkoder
2012	Albanians	Arr	3.62	0.52	0.52	0.38	0.28	0	0.1	2.72	0.11	0.95	0.96	0.37	0.33
		Dep	3.96	0.55	0.55	0.4	0.29	0	0.11	3.01	0.12	1.06	0.98	0.46	0.38
	Foreigners	Arr	3.51	0.27	0.27	0.18	0.13	0	0.05	3.06	0.04	0.17	0.45	1.75	0.65
		Dep	2.92	0.28	0.28	0.18	0.13	0	0.05	2.45	0.04	0.17	0.39	1.21	0.65
2013	Albanians	Arr	3.65	0.56	0.56	0.38	0.25	0	0.12	2.72	0.08	0.97	0.96	0.39	0.31
		Dep	3.93	0.56	0.56	0.39	0.26	0	0.13	2.97	0.1	1.03	0.96	0.51	0.37
	Foreigners	Arr	3.26	0.31	0.31	0.19	0.11	0	0.07	2.76	0.03	0.35	0.51	1.29	0.58
		Dep	3.22	0.32	0.32	0.18	0.11	0	0.07	2.73	0.03	0.35	0.48	1.29	0.57
2014	Albanians	Arr	3.87	0.56	0.56	0.35	0.27	0	0.08	2.96	0.11	0.83	0.97	0.63	0.41
		Dep	4.15	0.58	0.58	0.37	0.29	0	0.09	3.19	0.13	0.87	1	0.73	0.46
	Foreigners	Arr	3.67	0.34	0.34	0.2	0.12	0	0.08	3.13	0.06	0.3	0.61	1.47	0.7
		Dep	3.68	0.34	0.34	0.2	0.11	0	0.08	3.14	0.05	0.3	0.6	1.48	0.7
2015	Albanians	Arr	4.1	0.58	0.58	0.35	0.25	0	0.1	3.16	0.15	0.83	1.04	0.68	0.47
		Dep	4.5	0.59	0.59	0.4	0.3	0	0.11	3.51	0.17	0.84	1.07	0.88	0.55
	Foreigners	Arr	4.13	0.4	0.4	0.21	0.11	0	0.11	3.52	0.07	0.33	0.6	1.76	0.76
		Dep	4.18	0.4	0.4	0.22	0.11	0	0.11	3.56	0.05	0.32	0.52	1.92	0.74
2016	Albanians	Arr	4.59	0.64	0.64	0.38	0.28	0	0.1	3.58	0.22	0.85	1.18	0.83	0.5
		Dep	4.85	0.64	0.64	0.39	0.29	0	0.1	3.82	0.24	0.85	1.21	0.94	0.58
	Foreigners	Arr	4.74	0.46	0.46	0.28	0.14	0	0.14	4	0.07	0.37	0.65	2.12	0.8
		Dep	4.67	0.45	0.45	0.28	0.14	0	0.14	3.94	0.06	0.35	0.56	2.24	0.74

In the last five years, the volume of passengers in the airport of Rinas had an annual increase of 8.6% in arrivals and 7% in departures. Regarding the movements at ports the arrivals and departures of passengers at the port of Durres have experienced a slight increase of 0.4% and 0.2% respectively, while the port of Vlora experienced an increase of more than 11% in arrivals and departures in the same period. In the case of the port of Shengin, the arrivals and departures of passengers are irregular during the same period and not relevant.

The most active land border crossing in terms of growth is Blade, with an annual increase of 18% in arrivals and 16% in departures connecting passengers with FYROM. Border crossings with Greece at Kakavia and Tre Urat experiment a slight increase of 2% in arrivals and maintain the volume of departures. Passenger arrivals and departures at the border crossings of Qafe Thane Tushemisht and Kapshtice have increased the number of passengers in both directions in a 6.6%. Relationships with Kososvo at Morina and Qafe Prush have increased the volume of passengers in the period analyzed in 8.6% in arrivals and 17.4% in departures. The different

growth in arrivals that in departures become in an equilibrium of both flows, so for projections, it is supposed 8.6% in both directions. The border crossing with Montenegro at Muriqan and Hani Hotit experienced an increase of 7% in both directions. Due to the potentiality of tourism in Albania and the signs of recovering of the economy, a similar behaviour during the next years could be assumed, to reach 2038 with the same tendency. The following table shows the generation and attraction vectors for the year 2038.

Table II - 59. G A vectors in the 2038

TAZ	CODE	Production_2038	Attraction_2038	TAZ	CODE	Production_2038	Attraction_2038
Tropoje	1	2,615	1,197	Peqin	41	2,671	2,422
Mallakaster	2	1,641	1,796	Permet	42	336	676
Belsh	3	2,742	2,891	Diber	43	5,984	3,353
Berat	4	15,770	21,649	Pogradec	44	6,007	8,049
Devoll	5	2,299	3,957	Poliçan	45	973	431
Bulqize	6	3,339	1,377	Prrenjas	46	2,722	3,762
Mat	7	2,167	2,017	Puke	47	723	484
Cerrik	8	3,636	2,625	Pustec	48	571	346
Skrapar	9	466	713	Rinas	49	16,327	20,811
Delvine	10	798	632	Roskovec	50	2,958	2,164
Divjake	11	2,121	4,953	Mirditë	51	2,558	1,258
Dropull	12	710	795	Rrogozhina	52	1,171	3,905
Durres	13	62,393	51,693	Saranda	53	9,522	5,985
Elbasan	14	20,297	15,897	Selenice	54	3,508	1,560
Kolonje	15	887	829	Shijak	55	7,961	3,732
Fier	16	18,153	15,987	Shkoder	56	44,218	34,288
Finiq	17	1,865	1376	Tepelena	57	1063	1008
Fushe Arres	18	283	541	Tirana	58	209,552	145,973
Gjirokaster	19	6,071	4,372	Ura Vajgurore	59	2,523	3,385
Gramsh	20	1012	1,611	Vau i Dejes	60	4,267	2,483
Himare	21	1,820	1114	Vlora	61	26,700	19,797
Kamez	22	1,546	16,082	Vora	62	737	4,938
Kavaje	23	1,776	7,563	Montenegro Hani Hotit	63	8,213	10,422

TAZ	CODE	Production_2038	Attraction_2038	TAZ	CODE	Production_2038	Attraction_2038
Kelcyre	24	292	128	Hani Hotit BC Montenegro	64	8,112	10,028
Klos	25	1101	297	Morine BC Kosovo	65	8,799	38,706
Konispol	26	1,874	1437	Qafe Morine BC Kosovo	66	471	1856
Malesi e Madhe	27	3,314	5,179	Bllade BC Macedonia	67	760	1,991
Korça	28	12,261	11,676	Port of Shengjin	68	5	1
Kruje	29	17,237	27,654	Port of Durres	69	459	485
Has	30	2,069	557	Port of Vlora	70	1420	1,861
Kuçove	31	3,568	2,467	Port of Saranda	71	122	7,941
Kukes	32	5,339	3,082	Qafbot BC Greece	72	36	7
Kurbin	33	8,917	5,936	Qafe Thane BC Macedonia	73	16,193	25,429
Lezha	34	14,076	12,146	Tushemisht BC Macedonia	74	260	258
Libohove	35	598	337	Kapshtice BC Greece	75	12,892	26,886
Librazhd	36	3,115	4,126	Triurat BC Greece	76	0	0
Lushnje	37	6,976	13,272	Greece	77	3,016	3,264
Maliq	38	4,898	5,279	Italy Port of Durres	78	218	487
Memaliaj	39	532	153	Port of Durres Other Countries	79	3	487
Patos	40	3,211	1,645	Kapshtice BC Turkey	80	1098	957
						658,914	658,914

The final passenger matrix in 2038 is shown in the table below in terms of total passengers.

Table II - 60. Origin Destination matrix in passenger/day for the year 2038 in all modes.

Origin Destination matrix in passenger/day for the year 2038 in all modes.

Zone	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	Tropojë	0	7	9	76	14	6	8	7	3	3	17	3	153	46	4	52	6	5	19	6	5	27	21
2	Mallakastër	3	0	7	72	8	3	4	6	2	2	14	3	107	33	2	67	4	1	15	4	4	17	17
3	Belsh	4	7	0	132	13	5	6	19	3	2	22	3	169	81	3	71	4	2	16	8	4	32	29
4	Berat	27	57	101	0	76	29	40	67	28	15	151	19	1,134	356	18	590	31	11	114	42	30	169	196
5	Devoll	3	5	7	53	0	4	5	6	2	2	12	2	97	38	5	36	3	1	12	4	3	18	14
6	Bulqizë	7	8	12	96	17	0	22	10	4	3	21	4	212	61	4	66	6	3	22	7	6	39	28
7	Mat	4	5	7	59	10	10	0	6	2	2	13	2	141	39	2	41	4	2	13	5	3	27	18
8	Cërrik	5	9	29	128	16	6	8	0	4	2	30	3	228	144	4	88	5	2	19	11	5	45	42
9	Skrapar	1	2	2	25	2	1	1	2	0	0	4	1	30	9	1	13	1	0	4	1	1	5	5
10	Delvinë	2	2	3	24	4	1	2	2	1	0	5	3	41	13	1	18	15	1	15	2	3	7	6
11	Divjakë	3	7	10	88	10	4	5	9	3	2	0	2	161	51	2	69	4	1	14	5	4	23	30
12	Dropull	1	2	2	23	4	1	2	2	1	2	5	0	39	12	1	18	5	1	29	2	2	6	6
13	Durrës	89	144	216	1,897	234	107	159	199	57	41	460	53	0	1,156	56	1,379	88	41	319	124	83	987	927
14	Elbasan	28	47	110	627	97	33	47	132	19	14	154	18	1,217	0	22	452	29	12	105	54	27	271	208
15	Kolonjë	2	2	3	26	9	2	2	3	1	1	6	1	47	17	0	18	2	1	9	2	2	8	7
16	Fier	28	83	85	915	81	31	43	71	23	17	183	23	1,279	398	20	0	37	12	139	44	38	187	229
17	Finiq	3	6	6	55	9	3	4	5	2	16	12	7	93	29	3	42	0	1	34	4	8	15	14
18	Fushë Arrës	1	1	1	8	1	1	1	1	0	0	2	0	17	5	0	5	1	0	2	1	0	3	2
19	Gjirokastër	12	23	23	212	33	12	16	19	8	17	44	44	354	111	12	167	36	5	0	14	18	57	53
20	Gramsh	2	3	5	36	5	2	3	5	1	1	8	1	63	26	1	24	2	1	7	0	2	12	10
21	Himarë	4	6	7	66	9	4	5	6	2	4	14	4	110	34	3	54	10	1	22	4	0	18	17
22	Kamëz	1	2	4	25	4	2	3	3	1	1	6	1	86	22	1	18	1	1	5	2	1	0	10
23	Kavajë	2	5	7	64	7	3	4	7	2	1	17	2	182	39	2	49	3	1	9	4	2	22	0
24	Këlcyrë	1	1	1	10	2	1	1	1	0	1	2	1	17	5	1	8	1	0	6	1	1	3	3
25	Klos	2	3	4	31	5	8	10	3	1	1	7	1	70	20	1	21	2	1	7	2	2	13	9
26	Konispol	4	6	7	62	10	4	5	5	2	7	13	6	105	33	3	46	15	2	33	4	7	17	16
27	Malësi e Madhe	6	7	10	80	13	7	10	8	3	2	18	3	193	53	3	56	5	3	17	6	4	37	25
28	Korçë	20	27	42	320	244	21	28	36	12	10	72	13	591	240	31	222	21	8	74	26	18	110	89
29	Krujë	26	36	56	438	67	32	49	50	15	11	101	14	1,285	322	16	310	24	12	84	33	22	285	156
30	Has	8	5	7	58	10	5	6	6	2	2	13	2	124	36	3	40	4	2	13	5	3	23	17
31	Kuçovë	5	11	28	273	16	6	8	16	5	3	31	4	234	82	4	116	6	2	23	9	6	36	41
32	Kukës	12	11	16	129	21	11	15	14	5	4	29	5	304	85	5	89	8	5	28	10	7	58	40
33	Kurbin	13	16	26	204	31	17	29	24	7	5	47	7	616	152	7	144	11	6	39	15	10	140	74
34	Lezhë	22	27	42	329	51	28	45	37	11	8	76	11	941	239	12	233	18	11	64	25	17	203	115
35	Libohovë	1	2	2	20	3	1	2	2	1	2	4	5	33	10	1	15	4	0	24	1	2	5	5
36	Librazhd	5	7	14	92	20	5	7	13	3	2	22	3	174	102	4	65	5	2	17	8	4	35	28
37	Lushnjë	10	23	37	405	30	11	16	31	9	6	77	7	535	166	7	325	12	4	45	17	12	75	109
38	Maliq	8	10	16	123	75	8	11	14	4	4	28	5	227	94	11	85	8	3	27	10	7	42	34
39	Memaliaj	1	2	2	20	3	1	1	2	1	1	4	2	32	10	1	16	2	0	12	1	1	5	5
40	Patos	5	16	14	156	14	5	7	11	4	3	29	4	207	64	3	269	6	2	23	7	6	31	36
41	Peqin	4	7	15	105	11	4	6	17	3	2	29	2	204	80	3	80	4	2	15	7	4	30	45
42	Përmet	1	1	1	12	2	1	1	1	0	1	2	1	19	6	1	9	1	0	6	1	1	3	3
43	Dibër	17	16	21	174	32	19	27	17	7	6	38	7	362	107	8	120	12	6	42	14	11	65	49
44	Pogradec	10	14	22	162	68	10	14	19	6	5	37	6	300	130	12	112	10	4	34	13	9	57	46
45	Poliçan	2	3	5	68	5	2	2	4	3	1	8	1	63	20	1	29	2	1	7	2	2	10	10
46	Prrenjas	4	6	11	75	21	5	6	10	3	2	17	3	141	69	4	53	4	2	15	6	4	27	22
47	Pukë	2	2	2	20	3	2	2	2	1	1	4	1	45	13	1	14	1	2	4	2	1	8	6
48	Pustec	1	1	2	16	8	1	1	2	1	0	3	1	29	11	1	11	1	0	4	1	1	5	4
49	Rinas	19	28	45	350	50	24	37	42	11	8	82	11	1,295	274	12	251	18	9	63	26	16	291	141
50	Roskovec	5	12	15	196	13	5	7	11	4	3	26	4	190	59	3	180	6	2	22	7	6	28	32
51	Mirditë	4	5	8	62	10	5	8	7	2	2	14	2	168	44	2	44	3	2	12	5	3	35	21
52	Rrogozhinë	2	3	6	49	5	2	3	6	1	1	14	1	99	30	1	38	2	1	7	3	2	13	26
53	Sarandë	19	29	32	295	47	18	23	26	11	61	62	35	499	156	16	224	171	7	175	21	40	82	74
54	Selenicë	6	14	14	139	17	7	9	12	4	4	29	5	220	69	4	130	9	3	30	8	9	34	35
55	Shijak	9	14	22	189	24	11	17	20	6	4	46	5	1,062	126	6	138	9	4	32	12	8	119	91
56	Shkodër	90	97	144	1,153	186	98	148	125	41	32	261	40	2,927	791	46	807	68	46	238	89	61	578	375
57	Tepelenë	2	4	4	38	6	2	3	3	1	2	8	4	63	20	2	31	5	1	30	3	3	10	10
58	Tiranë	428	612	1,175	7,708	1,201	527	799	1,128	249	185	1,816	238	26,379	7,504	282	5,502	396	198	1,416	639	366	10,539	2,994
59	Ura Vajgurore	4	8	16	295	11	4	6	10	4	2	22	3	164	52	3	91	4	2	16	6	4	24	29
60	Vau i Dejës	8	9	13	102	16	9	13	11	4	3	23	4	256	70	4	71	6	5	21	8	5	50	33
61	Vlorë	46	110	118	1,193	130	50	68	98	35	32	244	38	1,809	564	32	1,382	69	19	233	66	75	276	300
62	Vorë	1	1	2	14	2	1	1	2	0	0	3	0	61	11	0	10	1	0	3	1	1	14	6
63	MontenegroHan	15	17	25	198	32	17	25	21	7	6	45	7	491	134	8	139	12	8	42	15	11	95	63
64	HHotitBCMonte	17	18	26	213	36	18	26	22	8	6	47	8	496	139	9	148	13	8	46	16	12	93	65
65	MorineBCKosovo	25	22	32	261	44	22	30	27	10	8	58	10	599	170	11	181	16	10	57	20	15	112	79
66	QafeMorineBCK	6	1	2	14	3	1	1	1	1	0	3	1	28	8	1	10	1	1	3	1	1	5	4
67	BlladeBCMacedo	2	2	3	23	4	4	4	2	1	1	5	1	47	14	1	16	2	1	5	2	1	8	6
68	PortofShengjin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	PortofDurres	1	1	1	12	1	1	1	1	0	0	3	0	82	7	0	8	1	0	2	1	1	6	6
70	PortofVlora	2	5	5	50	6	2	3	4	1	1	10	2	77	24	1	57	3	1	10	3	3	12	13
71	PortofSaranda	0	0	0	4	1	0	0	0	0	1	1	0	7	2	0	3	2	0	2	0	1	1	1
72	QafbotBCGreece	0	0	0	1	0	0	0	0	0	0	0	0	2	1	0	1	0	0	1	0	0	0	0
73	QafThaneBCMac	29	41	67	491	154	31	41	59	17	14	111	17	914	410	31	342	29	12	102	41	26	174	140
74	TushemishtBCMa	0	1	1	7	3	0	1	1	0	0	1	0	12	5	0	5	0	0	1	1	0	2	2
75	KapshticeBCGre	25	32	48	374	478	25	33	41	14	12	83	15	687	267	33	258	25	10	89	31	21	126	103
76	TriuratBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	6	11	11	102	16	6	8	9	4	9	21	31	172	54	6	79	20	2	101	7	10	28	26
78	ItalyPortofDu	0	0	1	6	1	0	0	1	0	0	1	0	37	3	0	4	0	0	1	0	0	3	3
79	P.ofD.Otherc	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
80	KapshticeBCTur	2	2	3	23	29	2	2	3	1	1	5	1	43	17	2	16	2	1	6	2	1	8	6
Tot		**1,197**	**1,796**	**2,891**	**21,650**	**3,957**	**1,377**	**2,017**	**2,625**	**713**	**632**	**4,953**	**795**	**51,702**	**15,899**	**829**	**15,987**	**1,376**	**541**	**4,372**	**1,611**	**1,114**	**16,086**	**7,563**

Zone	Name	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
1	Tropojë	1	1	7	20	45	85	5	8	16	17	39	1	14	40	19	1	5	7	3	21	29	2	13	3	1	49	7	5	11	28	6
2	Mallakastër	0	1	5	9	26	50	1	7	6	10	21	1	9	40	11	1	7	6	2	8	18	1	8	1	1	30	8	2	10	19	6
3	Belsh	0	1	5	14	41	82	2	19	10	16	34	1	17	67	18	1	7	13	2	11	29	2	15	2	1	52	11	4	18	21	6
4	Berat	3	6	35	89	245	492	12	140	60	97	203	8	90	558	105	4	58	70	17	74	168	23	80	10	7	309	105	22	120	152	45
5	Devoll	0	1	4	10	130	52	1	6	7	10	22	1	14	29	44	0	4	5	2	9	49	1	16	1	3	31	5	2	8	17	4
6	Bulqizë	1	5	7	25	53	120	3	10	16	27	57	2	17	52	22	1	7	9	3	27	35	2	16	3	2	70	9	6	15	31	7
7	Mat	0	3	4	16	32	82	2	6	10	21	41	1	11	33	13	0	4	6	2	17	21	1	10	2	1	49	5	4	9	18	4
8	Cërrik	1	1	6	18	53	109	2	16	12	22	44	1	25	82	23	1	8	21	3	14	38	2	20	2	2	71	11	5	28	26	7
9	Skrapar	0	0	1	3	8	15	0	2	2	3	6	0	3	10	3	0	1	2	1	3	5	1	2	0	0	9	2	1	3	5	1
10	Delvinë	0	0	7	4	12	21	1	2	3	4	9	1	4	13	5	0	2	2	2	4	8	1	4	0	0	12	2	1	3	52	2
11	Divjakë	0	1	4	12	32	66	2	9	8	13	27	1	12	62	14	1	6	11	2	9	22	2	11	1	1	43	8	3	20	19	5
12	Dropull	0	0	4	4	12	19	1	2	3	4	8	2	3	12	5	0	2	2	2	4	7	0	3	0	0	11	2	1	3	22	2
13	Durrës	9	23	101	360	756	2,419	43	201	237	489	969	23	287	1,234	324	11	129	227	49	257	523	35	250	37	23	1,912	171	101	407	430	120
14	Elbasan	3	7	33	105	323	639	13	75	70	127	259	8	176	404	141	4	42	94	16	80	239	12	129	11	9	425	56	28	131	142	39
15	Kolonjë	0	0	3	5	33	25	1	3	3	5	11	1	6	14	13	0	2	2	2	5	17	1	6	1	1	15	2	1	4	11	2
16	Fier	4	6	41	96	263	541	13	93	65	106	222	10	99	696	113	5	156	82	20	79	182	15	87	10	8	343	150	24	146	179	66
17	Finiq	1	1	15	10	28	47	1	6	6	9	20	3	8	29	11	1	4	5	4	9	18	1	8	1	1	27	5	2	8	155	5
18	Fushë Arrës	0	0	1	2	4	10	0	1	2	2	5	0	1	4	2	0	1	1	0	2	3	0	1	1	0	6	1	1	1	3	1
19	Gjirokastër	4	2	36	35	106	176	5	22	24	34	73	18	32	115	43	5	16	18	17	33	66	4	30	4	3	103	22	8	30	167	18
20	Gramsh	0	0	2	6	17	32	1	4	4	6	13	0	7	20	7	0	2	4	1	5	12	1	6	1	1	20	3	1	6	9	2
21	Himarë	1	1	9	11	30	54	2	7	7	10	22	2	10	36	13	1	5	6	3	10	20	1	9	1	1	32	7	3	9	46	6
22	Kamëz	0	0	1	6	12	47	1	3	4	10	18	0	5	15	5	0	2	3	1	4	9	0	4	1	0	38	2	2	5	6	2
23	Kavajë	0	1	3	9	22	58	1	7	6	12	23	1	9	49	10	0	4	10	1	7	16	1	8	1	1	41	6	2	21	13	4
24	Këlcyrë	0	0	1	2	6	9	0	1	1	2	4	0	2	5	2	0	1	1	2	2	4	0	1	0	0	5	1	0	1	6	1
25	Klos	0	0	2	8	17	40	1	3	5	9	20	1	6	17	7	0	2	3	1	9	11	1	5	1	1	24	3	2	5	10	2
26	Konispol	1	1	0	11	33	54	2	6	8	10	22	3	10	32	14	1	4	5	4	11	21	1	9	1	1	31	6	3	9	69	6
27	Malësi e Madhe	0	1	6	0	42	109	3	8	15	27	69	1	14	45	18	1	5	8	3	16	28	2	13	3	1	67	7	6	13	24	6
28	Korçë	3	4	25	62	0	319	9	35	42	62	132	5	91	176	495	2	22	32	15	55	377	7	106	7	15	189	29	15	50	100	23
29	Krujë	2	7	27	109	217	0	13	46	71	154	301	6	81	257	93	3	30	46	13	76	150	9	71	11	7	527	40	31	77	116	30
30	Has	0	1	5	15	32	70	0	6	18	15	33	1	10	31	14	0	4	5	2	17	21	1	10	2	1	41	5	4	9	19	4
31	Kuçovë	1	1	7	18	52	100	2	0	12	20	41	2	20	122	22	1	11	15	3	15	36	3	17	2	2	63	20	5	26	30	9
32	Kukës	1	2	9	35	69	173	8	13	0	41	89	2	23	71	29	1	9	12	4	39	46	3	21	4	2	104	12	13	20	39	9
33	Kurbin	1	4	13	63	100	365	7	21	40	0	254	3	38	120	43	1	14	21	6	38	69	4	33	6	3	262	19	22	36	53	14
34	Lezhë	2	6	21	126	165	551	11	35	67	196	0	5	61	192	70	2	22	34	10	63	113	7	54	11	5	374	30	36	57	88	23
35	Libohovë	0	0	4	3	10	17	0	2	2	3	7	0	3	11	4	0	1	2	1	3	6	0	3	0	0	10	2	1	3	17	2
36	Librazhd	1	1	6	16	70	93	2	10	11	18	38	1	0	54	31	1	6	11	3	13	56	2	39	2	2	58	8	4	16	24	6
37	Lushnjë	1	2	14	36	97	210	5	46	24	41	86	3	39	0	42	2	27	41	7	29	68	6	33	4	3	138	35	9	81	59	19
38	Maliq	1	2	9	24	444	123	3	13	16	24	51	2	36	68	0	1	8	13	6	21	172	3	43	3	5	73	11	6	19	37	9
39	Memaliaj	0	0	2	3	9	16	0	2	2	3	6	1	3	11	4	0	2	2	1	3	6	0	3	0	0	9	2	1	3	10	2
40	Patos	1	1	7	16	44	89	2	16	11	18	37	2	16	100	19	1	0	13	3	13	30	3	14	2	1	56	25	4	22	30	10
41	Peqin	0	1	5	13	37	77	2	11	9	15	32	1	16	85	16	1	7	0	2	10	27	2	13	1	1	52	9	3	39	20	6
42	Përmet	0	0	2	2	8	10	0	1	1	2	4	0	2	6	3	0	1	1	0	2	4	0	2	0	0	6	1	0	2	7	1
43	Dibër	1	4	15	43	100	202	8	18	43	42	92	3	31	93	42	1	12	16	7	0	66	4	29	5	3	116	16	11	26	60	13
44	Pogradec	1	2	11	31	277	162	4	18	21	32	67	3	53	90	141	1	11	17	6	27	0	3	71	3	6	97	15	7	26	47	11
45	Poliçan	0	0	2	6	15	29	1	5	4	6	12	1	5	25	7	0	3	4	1	5	10	0	5	1	0	18	5	1	6	10	3
46	Prrenjas	0	1	5	14	77	76	2	8	9	15	31	1	36	43	35	1	5	8	3	12	70	2	0	2	2	46	7	3	13	21	5
47	Pukë	0	0	2	7	11	25	1	2	3	6	14	0	4	11	5	0	1	2	1	4	7	0	3	0	0	15	2	1	3	6	1
48	Pustec	0	0	1	3	25	16	0	2	2	3	7	0	4	9	9	0	1	2	1	3	13	0	4	0	0	9	1	1	2	5	1
49	Rinas	2	5	20	85	164	672	9	37	55	141	261	5	65	215	70	2	24	39	10	56	114	7	55	8	5	0	32	26	67	86	23
50	Roskovec	1	1	6	15	42	83	2	19	10	16	34	2	15	89	18	1	17	11	3	13	29	3	13	2	1	52	0	4	20	28	9
51	Mirditë	0	1	4	19	31	97	2	6	17	29	62	1	11	36	13	0	4	6	2	14	22	1	10	2	1	63	6	0	11	17	4
52	Rrogozhinë	0	0	2	6	16	35	1	5	4	7	14	0	7	46	7	0	3	11	1	5	11	1	5	1	0	24	4	2	0	9	3
53	Sarandë	4	4	77	51	149	253	7	30	35	49	105	13	45	157	62	4	22	26	19	49	96	6	43	6	5	147	29	12	41	0	28
54	Selenicë	1	1	10	20	55	103	3	14	13	20	43	2	19	81	23	1	12	12	4	17	37	3	17	2	2	62	16	5	20	44	0
55	Shijak	1	2	10	38	78	271	4	20	25	55	108	2	30	123	34	1	13	23	5	26	54	4	26	4	2	239	17	11	40	43	12
56	Shkodër	7	21	79	811	598	1,677	39	120	219	442	1,251	17	210	653	255	8	78	115	37	231	406	23	189	46	18	1,050	105	96	190	330	81
57	Tepelenë	1	0	5	6	18	31	1	4	4	6	13	2	6	21	7	1	3	3	3	6	11	1	5	1	1	18	4	1	5	23	3
58	Tiranë	41	114	456	1,815	3,931	13,222	208	882	1,186	2,707	5,209	103	1,639	4,673	1,693	50	524	953	219	1,244	2,775	149	1,374	180	117	11,216	699	529	1,436	1,931	511
59	Ura Vajgurore	0	1	5	12	34	70	2	26	8	14	29	1	13	93	15	1	9	11	2	10	24	3	11	1	1	44	18	3	19	21	6
60	Vau i Dejës	1	2	7	50	53	147	3	11	19	38	106	2	19	57	23	1	7	10	3	20	36	2	17	5	2	91	9	8	17	29	7
61	Vlorë	7	10	75	151	416	815	20	121	101	160	336	17	148	746	178	9	119	105	34	129	284	22	133	17	13	502	147	37	178	333	162
62	Vorë	0	0	1	3	7	26	0	2	2	5	10	0	3	9	3	0	1	2	0	2	5	0	2	0	0	31	1	1	3	3	1
63	MontenegroHan	1	4	14	105	104	280	7	21	37	71	190	3	36	112	44	1	13	20	7	40	70	4	33	7	3	173	18	16	32	58	14
64	HHotitBCMonte	1	4	16	179	114	280	7	22	38	66	163	3	38	117	49	2	14	21	7	44	77	4	35	8	4	168	19	15	34	65	15
65	MorineBCKosovo	2	5	19	70	141	338	15	27	150	78	168	4	47	143	60	2	18	25	9	78	94	5	43	7	4	202	24	23	41	80	19
66	QafeMorineBCK	0	0	1	4	8	15	1	1	3	3	7	0	2	7	3	0	1	1	1	4	5	0	2	1	0	9	1	1	2	5	1
67	BlladeBCMacedo	0	1	2	6	13	26	1	2	4	6	12	0	4	12	5	0	2	2	1	10	8	0	4	1	0	15	2	1	3	8	2
68	PortofShengjin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	PortofDurres	0	0	1	2	5	15	0	1	1	3	6	0	2	7	2	0	1	1	0	2	3	0	2	0	0	11	1	1	2	3	1
70	PortofVlora	0	0	3	6	18	35	1	5	4	7	14	1	6	31	8	0	5	4	1	5	12	1	6	1	1	21	6	2	7	14	7
71	PortofSaranda	0	0	1	1	2	3	0	0	0	1	1	0	1	2	1	0	0	0	0	1	1	0	1	0	0	2	0	0	1	13	0
72	QafbotBCGreece	0	0	3	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
73	QafThaneBCMac	3	6	34	92	559	491	12	54	62	96	203	7	177	276	256	3	33	52	18	79	526	10	265	10	14	296	45	22	80	141	35
74	TushemishtBCMa	0	0	0	1	11	7	0	1	1	1	3	0	2	4	5	0	0	1	0	1	22	0	3	0	0	4	1	0	1	2	0
75	KapshticeBCGre	3	5	30	73	770	372	10	40	49	72	154	7	97	202	278	3	25	37	18	67	325	8	108	8	17	218	34	17	57	121	27
76	TriuratBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	2	1	19	17	52	86	3	10	12	17	36	8	15	55	21	2	8	9	8	17	32	2	14	2	2	50	10	4	14	91	9
78	ItalyPortofDu	0	0	0	1	2	7	0	1	1	1	3	0	1	4	1	0	0	1	0	1	2	0	1	0	0	5	1	0	1	1	0
79	P.ofD.Otherc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	KapshticeBCTur	0	0	2	5	48	23	1	3	3	5	10	0	6	13	17	0	2	2	1	4	20	0	7	1	1	14	2	1	4	8	2
Tot		**128**	**297**	**####**	**5,179**	**11,676**	**27,657**	**557**	**2,467**	**3,082**	**5,937**	**12,147**	**337**	**4,126**	**13,272**	**5,279**	**153**	**1,645**	**2,422**	**676**	**3,353**	**8,049**	**431**	**3,762**	**484**	**346**	**20,815**	**2,164**	**1,258**	**3,905**	**5,985**	**1,560**

Zone	Name	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	Tot
1	Tropojë	9	148	4	719	11	10	74	10	40	44	213	51	10	0	1	5	31	0	97	1	111	0	14	1	1	3	2,615
2	Mallakastër	6	69	4	445	10	4	76	6	19	20	85	5	5	0	1	5	22	0	60	1	63	0	11	1	1	2	1,641
3	Belsh	9	107	4	894	21	7	85	11	29	30	125	6	7	0	1	6	24	0	102	1	97	0	11	1	1	3	2,742
4	Berat	62	661	27	4,498	296	42	658	66	178	190	789	41	43	0	8	46	174	0	575	5	584	0	82	9	8	18	15,770
5	Devoll	6	74	3	486	7	5	50	6	20	22	93	5	5	0	1	3	19	0	126	1	519	0	9	1	1	15	2,299
6	Bulqizë	12	185	5	1,016	13	12	91	14	50	53	215	11	26	0	2	6	35	0	119	1	130	0	16	2	2	4	3,339
7	Mat	8	126	3	692	8	8	56	10	33	34	136	6	10	0	1	4	20	0	72	1	77	0	9	1	1	2	2,167
8	Cërrik	13	138	4	1,264	19	9	104	15	37	38	157	8	8	0	2	7	29	0	134	1	122	0	14	2	2	4	3,636
9	Skrapar	2	20	1	128	3	1	17	2	6	6	26	1	1	0	0	1	6	0	18	0	19	0	3	0	0	1	466
10	Delvinë	2	30	3	180	3	2	29	3	8	9	39	2	2	0	0	2	58	0	26	0	31	0	13	0	0	1	798
11	Divjakë	9	87	3	621	13	6	79	9	24	25	103	5	6	0	1	5	21	0	76	1	76	0	10	1	1	2	2,121
12	Dropull	2	28	3	168	3	2	26	2	8	8	36	2	2	0	0	2	25	0	24	0	28	0	30	0	0	1	710
13	Durrës	585	2,808	74	25,756	276	179	1,669	471	738	741	3,035	135	151	0	101	116	492	0	1,792	16	1,797	0	230	97	109	55	62,393
14	Elbasan	73	799	24	7,715	91	51	548	91	213	219	905	43	47	0	9	38	162	0	846	7	736	0	76	9	9	22	20,297
15	Kolonjë	3	37	2	229	4	2	24	3	10	11	47	3	3	0	0	2	13	0	50	1	71	0	6	0	0	2	887
16	Fier	70	718	34	4,982	141	46	1,182	74	193	205	850	43	46	0	10	80	204	0	622	6	625	0	98	10	9	19	18,153
17	Finiq	5	68	6	407	8	4	67	6	19	21	88	5	5	0	1	5	168	0	60	1	69	0	28	1	1	2	1,865
18	Fushë Arrës	1	19	0	82	1	1	8	1	5	5	22	2	1	0	0	1	3	0	10	0	11	0	1	0	0	0	283
19	Gjirokastër	20	253	39	1,534	30	16	238	22	69	77	322	19	19	0	3	17	190	0	221	2	258	0	150	3	3	8	6,071
20	Gramsh	4	44	2	320	5	3	31	4	12	13	53	3	3	0	0	2	10	0	41	0	41	0	5	0	0	1	1,012
21	Himarë	6	77	4	471	9	5	91	7	21	23	97	6	6	0	1	6	52	0	67	1	73	0	17	1	1	2	1,820
22	Kamëz	6	48	1	898	4	3	22	9	12	12	49	2	2	0	1	2	7	0	30	0	29	0	3	1	1	1	1,546
23	Kavajë	10	71	2	574	10	5	54	9	19	19	79	4	4	0	1	4	14	0	54	0	53	0	7	1	1	2	1,776
24	Këlcyrë	1	12	1	74	1	1	11	1	3	4	16	1	1	0	0	1	7	0	11	0	15	0	4	0	0	0	292
25	Klos	4	62	2	339	4	4	29	5	17	17	70	3	7	0	1	2	11	0	38	0	41	0	5	1	1	1	1,101
26	Konispol	6	79	6	463	9	5	72	6	22	24	102	6	6	0	1	5	79	1	69	1	81	0	27	1	1	2	1,874
27	Malësi e Madhe	11	416	4	948	11	19	74	14	84	143	189	9	10	0	1	5	27	0	96	1	102	0	12	1	1	3	3,314
28	Korçë	34	448	16	3,001	45	29	300	39	122	133	558	31	32	0	4	21	115	0	856	11	1,574	0	55	5	4	48	12,261
29	Krujë	79	855	19	6,858	62	54	399	105	224	223	910	40	45	0	10	28	132	0	512	5	517	0	61	10	9	16	17,237
30	Has	7	108	3	594	8	7	55	8	29	31	218	12	7	0	1	4	22	0	72	1	79	0	10	1	1	2	2,069
31	Kuçovë	13	134	5	1,000	51	9	130	14	36	38	160	8	9	0	2	9	35	0	123	1	122	0	16	2	2	4	3,568
32	Kukës	18	270	6	1,489	18	17	120	21	72	74	978	18	16	0	2	8	44	0	156	1	166	0	20	2	2	5	5,339
33	Kurbin	38	534	9	3,327	29	33	185	52	134	123	496	19	23	0	5	13	61	0	237	2	238	0	28	5	4	7	8,917
34	Lezhë	58	1,166	15	4,942	47	72	302	75	277	236	827	33	37	0	7	21	101	0	386	3	392	0	47	7	7	12	14,076
35	Libohovë	2	24	3	145	3	2	22	2	7	7	31	2	2	0	0	2	19	0	21	0	25	0	15	0	0	1	598
36	Librazhd	10	123	4	972	13	8	83	12	33	35	145	7	8	0	1	6	27	0	211	2	153	0	13	1	1	5	3,115
37	Lushnjë	29	271	11	1,978	68	17	298	30	73	76	315	15	17	0	4	20	67	0	235	2	230	0	32	4	4	7	6,976
38	Maliq	13	171	6	1,159	17	11	115	15	47	51	213	12	12	0	2	8	43	0	352	5	510	0	20	2	2	15	4,898
39	Memaliaj	2	22	5	137	3	1	23	2	6	7	28	2	2	0	0	2	12	0	19	0	21	0	7	0	0	1	532
40	Patos	11	120	6	819	24	8	176	12	32	34	143	7	8	0	2	12	34	0	104	1	106	0	16	2	2	3	3,211
41	Peqin	11	99	3	838	16	6	87	11	26	28	114	6	6	0	2	6	23	0	92	1	87	0	11	2	1	3	2,671
42	Përmet	1	14	1	85	2	1	13	1	4	4	18	1	1	0	0	1	7	0	14	0	18	0	4	0	0	1	336
43	Dibër	21	312	9	1,710	24	20	167	24	85	93	557	26	45	0	3	12	69	0	219	2	246	0	31	3	3	8	5,984
44	Pogradec	17	224	8	1,555	23	14	150	20	61	66	274	15	16	0	2	10	54	0	592	17	488	0	25	2	2	15	6,007
45	Poliçan	4	41	2	263	8	3	36	4	11	12	50	3	3	0	0	3	11	0	35	0	37	0	5	0	0	1	973
46	Prrenjas	8	102	3	756	11	7	69	10	28	30	123	6	7	0	1	5	24	0	292	2	159	0	11	1	1	5	2,722
47	Pukë	3	54	1	216	3	4	19	3	14	14	46	3	2	0	0	1	7	0	24	0	27	0	3	0	0	1	723
48	Pustec	2	22	1	145	2	1	15	2	6	7	28	2	2	0	0	1	6	0	35	0	57	0	3	0	0	2	571
49	Rinas	89	682	14	7,419	50	43	314	163	176	170	693	29	33	0	10	22	98	0	393	3	386	0	46	10	10	12	16,327
50	Roskovec	10	112	5	759	33	7	151	11	30	32	135	7	7	0	1	10	32	0	97	1	99	0	15	1	1	3	2,958
51	Mirditë	10	155	3	862	9	10	57	13	40	38	198	7	7	0	1	4	19	0	73	1	75	0	9	1	1	2	2,558
52	Rrogozhinë	5	45	2	343	8	3	40	5	12	12	51	2	3	0	1	3	10	0	38	0	37	0	5	1	1	1	1,171
53	Sarandë	28	367	31	2,187	41	24	356	30	101	112	473	29	29	0	4	25	1,135	0	321	3	368	0	142	4	4	11	9,522
54	Selenicë	12	143	7	918	20	9	276	13	39	42	177	10	10	0	2	19	50	0	125	1	132	0	21	2	2	4	3,508
55	Shijak	0	302	7	3,082	28	19	167	66	79	78	319	14	16	0	8	12	49	0	187	2	185	0	23	8	8	6	7,961
56	Shkodër	173	0	54	14,648	162	374	1,069	212	1,797	1,269	2,784	133	136	0	22	75	377	0	1,379	12	1,438	0	174	22	21	44	44,218
57	Tepelenë	3	44	0	271	5	3	44	4	12	13	56	3	3	0	0	3	26	0	39	0	44	0	16	0	0	1	1,063
58	Tiranë	1,739	14,392	324	0	1,103	913	6,949	2,700	3,746	3,694	15,072	648	729	0	196	484	2,205	2	9,602	84	9,205	0	1,026	198	193	281	209,552
59	Ura Vajgurore	9	93	4	641	0	6	96	9	25	26	110	6	6	0	1	7	24	0	80	1	81	0	11	1	1	2	2,523
60	Vau i Dejës	15	515	5	1,280	14	0	94	18	105	90	245	12	12	0	2	7	33	0	122	1	127	0	15	2	2	4	4,267
61	Vlorë	100	1,112	56	7,356	175	71	0	107	301	323	1,346	71	75	0	14	508	380	0	965	9	999	0	164	14	13	30	26,700
62	Vorë	5	27	1	344	2	2	13	0	7	7	27	1	1	0	0	1	4	0	16	0	15	0	2	0	0	0	737
63	MontenegroHan	29	1,147	9	2,434	28	49	185	35	0	187	475	23	24	0	4	13	66	0	239	2	251	0	30	4	4	8	8,213
64	HHotitBCMonte	29	815	10	2,414	30	42	199	34	188	0	498	26	26	0	4	14	74	0	259	2	277	0	34	4	4	8	8,112
65	MorineBCKosovo	35	528	13	2,907	36	34	245	41	141	147	0	37	33	0	4	17	92	0	319	3	343	0	42	5	4	10	8,799
66	QafeMorineBCK	2	26	1	130	2	2	13	2	7	8	39	0	2	0	0	1	6	0	18	0	20	0	3	0	0	1	471
67	BlladeBCMacedo	3	41	1	222	3	3	22	3	11	12	52	3	0	0	0	2	9	0	28	0	32	0	4	0	0	1	760
68	PortofShengjin	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
69	PortofDurres	3	17	0	155	2	1	10	3	4	5	18	1	1	0	0	1	3	0	11	0	11	0	1	1	1	0	459
70	PortofVlora	4	47	2	312	7	3	310	5	13	14	57	3	3	0	1	0	16	0	41	0	43	0	7	1	1	1	1,420
71	PortofSaranda	0	5	0	28	1	0	5	0	1	1	6	0	0	0	0	0	0	0	4	0	5	0	2	0	0	0	122
72	QafbotBCGreece	0	1	0	8	0	0	1	0	0	0	2	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	36
73	QafThaneBCMac	53	675	23	4,783	69	43	454	62	183	198	824	44	46	0	7	32	161	0	0	15	1,145	0	74	7	7	35	16,193
74	TushemishtBCMa	1	9	0	62	1	1	6	1	2	3	11	1	1	0	0	0	2	0	23	0	19	0	1	0	0	1	260
75	KapshticeBCGre	39	528	19	3,437	52	34	352	45	144	158	664	38	39	0	5	25	139	0	858	10	0	0	65	5	5	148	12,892
76	TriuratBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	10	125	14	748	14	8	113	10	34	38	159	9	10	0	1	8	104	0	109	1	128	0	0	1	1	4	3,016
78	ItalyPortofDu	2	8	0	74	1	1	5	1	2	2	9	0	0	0	0	0	1	0	5	0	5	0	1	0	0	0	218
79	P.ofD.Otherc	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
80	KapshticeBCTur	2	33	1	215	3	2	22	3	9	10	42	2	2	0	0	2	9	0	54	1	303	0	4	0	0	0	1,098
Tot		**3,732**	**34,291**	**1,008**	**145,932**	**3,385**	**2,483**	**19,798**	**4,939**	**10,422**	**10,028**	**38,708**	**1,856**	**1,991**	**1**	**485**	**1,861**	**7,941**	**7**	**25,431**	**258**	**26,887**	**0**	**3,264**	**487**	**487**	**957**	**658,914**

5.7. TRANSPORT PERFORMANCE YEAR 2038

In the same way that in the base year, network performances have been estimated. The following table summarizes the main results for the base year and for the projected year 2038.

Table II - 61. Total number of passengers and general performances in the base year and in the year 2038

	Base year 2018 ANTP 3	Year 2038 ANTP 3
Passengers	307,426	658,914
Passengers x Km	32,855,095	76.921,494
Average trip length in km.	107	116.7

In this version of the Plan, the resulting growth of the number of passengers is set in 3.9% annually in the period 2018-2038. At the same time the number of passenger x Km presents an annual growth of 4.9% in the same period due to a continuous increase of the trip distance in 0.4%.

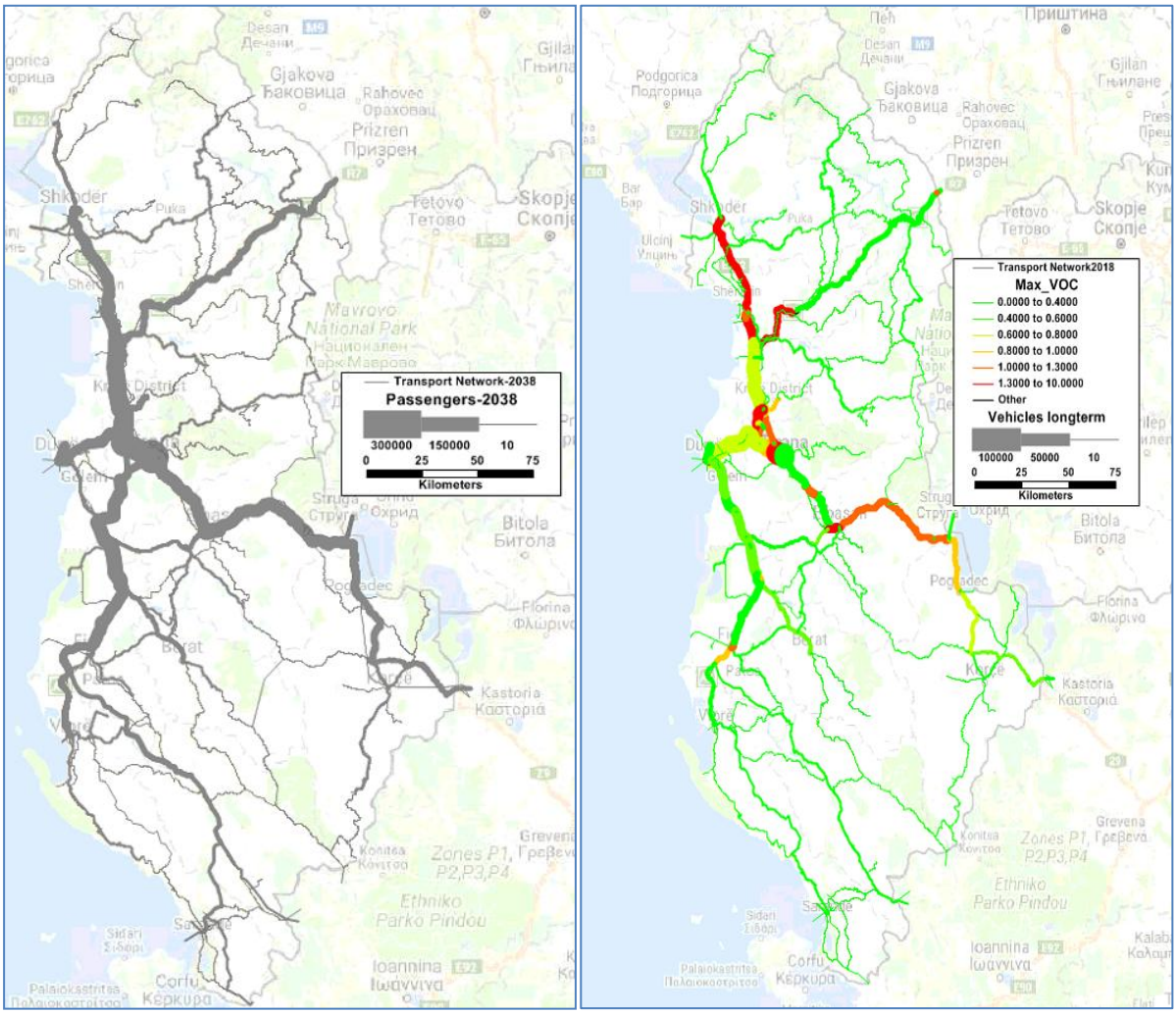
Regarding the number of passengers by type of vehicle, the expected increasing in passengers by car have an increase of 4.4% in the period 2018-2038, growth in mini buses and buses is set in 4.1% and 4.7% respectively.

Table II - 62. Total number of passengers and number of vehicles by type in the base year and in the year 2038.

	Base year 2018 ANTP 3		Year 2038 ANTP 3	
Type of vehicle	Number of vehicles	Number of passengers	Number of vehicles	Number of passengers
Passenger Car	90,837	190,843	153,212	399,520
Mini bus	2,352	49,329	4,799	100,627
Bus	1,738	67,254	4,102	158,767
Total passengers	94,927	307,426	160,047	658,914

Projections for further years have been undertaken taking into account the final proposals of the present Plan considering the future network development.

Figure II - 75. Total daily (passenger and vehicles) flow in the Year 2038.



6. FREIGHT TRAFFIC ANALYSIS, MODELLING AND FORECASTS

The definition of the network was explained in the section 4. It that section the general organization of the model, the software used, the definition of TAZ and the network coding were explained. Thus, this point will describe the methodology and the development of the freight transport model..

6.1. MODELLING METHODOLOGY

The freight transport model uses a "surplus and deficit" methodology to analyze current and future demand.

The model will attempt to identify the main commodities by class produced and consumed in Albania at the level of TAZ, to determine the main movements of freight traffic.

The basis for modelling has been the seven general groups of commodities which are summarized in the table below.

Table II - 63. Classified group of commodities.

Class	General classification
G1	Agriculture Products and Fertilizers
G2	Beverages
G3	Oil and derivates
G4	Construction Materials
G5	Minerals, ores and concentrates
G6	Manufactures
G7	Livestock, animal-made products

There are different sources for the data collection of the commodities in Albania. The Institute of Transport has a data base created in years by exercising the yearly update of the ANTP with the data collected.

However the source of raw data used for the freight model has been different. The main source of data is INSTAT, the Institute of Statistics in Albania, while for the exports and imports in Albania and their entry point we used the data that the IoT received from the General Directorate of Custom. However, all the data received is considered as raw materials and processed by the consultant to be included in the model. After analyzing the raw data, we obtained the following result as productions by group and zone.

It has to be noted that for the group 6 productions in tons are not available at the moment, there are only data in value. Thus, production in this group has been estimated by applying the percentage of share of this group in the general production of goods. This has been estimated in 18%, and distributed by zones as in the survey. The following table summarizes the production obtained by group in each internal zone.

Table II - 64. Classified group of commodities by zone in tons for the last year.

Zone Code	G1	G2	G3	G4	G5	G6	G7
1	30,817	0	0	0	75,414	0	29,592
2	131,128	0	54,045	229,096	0	0	43,667
3	16,528	0	0	0	0	0	9,650
4	43,474	3,112	0	72,224	0	17,568	16,219
5	47,821	1,920	0	0	0	0	17,354
6	41,406	0	0	8,073	315,716	0	23,289
7	30,111	0	0	0	0	0	16,936
8	15,957	0	0	0	0	0	9,316
9	95,138	162	0	8,710	0	0	35,494
10	9,022	324	336	0	0	0	7,526
11	123,292	0	0	0	0	0	41,058
12	7,048	0	0	0	0	0	8,100
13	80,812	3,739	0	277,291	0	0	36,785
14	73,372	6,979	0	161,224	0	58,561	42,839
15	91,165	0	0	0	69	0	33,083
16	246,889	6,730	29,311	320,851	0	427,496	82,217
17	21,766	0	0	0	0	0	18,157
18	31,472	0	0	0	0	0	16,834
19	7,377	168,785	0	56,000	0	64,417	8,479
20	62,204	0	0	0	0	0	36,318
21	28,210	0	0	15,000	0	0	23,533
22	4,976	0	0	10,000	0	0	2,975
23	26,610	144	0	94,982	0	0	15,908
24	4,789	0	0	0	0	0	5,504
25	21,814	0	0	0	0	0	12,269

Zone Code	G1	G2	G3	G4	G5	G6	G7
26	10,946	0	0	0	0	0	9,131
27	55,370	529	0	0	0	0	29,617
28	85,032	16,355	0	1,924,628	1,049	87,842	30,858
29	80,990	0	0	1,528,127	0	40,993	36,866
30	11,649	190	0	42,572	52,454	0	11,186
31	18,331	1,296	24,528	0	0	0	6,839
32	27,224	0	0	35,000	445,000	163,971	26,142
33	19,016	1,245	0	1,282,258	0	175,683	11,655
34	35,983	0	0	75,000	0	0	22,054
35	3,903	0	0	0	0	0	4,486
36	66,755	203	0	33,664	123,521	0	38,976
37	148,451	1,309	0	61,000	0	17,568	49,436
38	69,241	0	0	0	0	0	25,127
39	5,849	0	0	0	0	0	6,722
40	32,881	0	1,924,201	0	0	0	10,950
41	16,640	0	0	0	0	0	9,716
42	9,464	200	0	0	0	0	10,877
43	57,230	0	0	15,363	0	0	32,189
44	62,743	685	0	0	68,630	0	22,769
45	31,124	0	0	15,000	0	0	11,612
46	27,176	0	0	0	0	0	15,867
47	29,440	261	0	0	6,447	0	15,747
48	20,960	0	0	0	0	0	7,606
50	47,007	0	0	0	0	0	15,654
51	61,480	2,133	0	3,632	55,020	0	37,680
52	29,916	0	0	0	0	0	17,884

Zone Code	G1	G2	G3	G4	G5	G6	G7
53	2,909	324	0	0	0	0	2,426
54	27,679	0	0	78,111	813	0	23,090
55	22,024	0	0	0	0	0	10,025
56	50,814	2,906	0	102,000	0	35,137	27,180
57	6,779	15,360	0	45,000	0	0	7,791
58	148,588	196,736	0	180,000	0	1,885,669	88,828
59	17,911	0	0	0	0	0	6,682
60	29,062	0	0	0	0	0	15,545
61	30,419	37,331	36,604	60,000	0	0	25,375
62	11,071	0	0	250,000	0	0	6,618
TOTAL	2,705,258	468,956	2,069,025	6,984,806	1,144,131	2,974,907	1,324,309

Regarding the international trade, the statistics at each border crossing in the last year are summarized in the following table.

Table II - 65. Statistics in the border crossing points. 2017

Class	General classification	Import	Export	Import	Export	Import	Export	Import	Export
		Road		Rail		Air		Ship	
G1	Agriculture Products and Fertilizers	456,997	238,984	16,243	0	60	94	557,403	23,300
G2	Beverages	107,948	19,947	278	0	3	25	43,269	3,198
G3	Oil and derivates	24,639	492,207	12,352	0	340	11,999	1,593,224	1,185,769
G4	Construction Materials	340,562	1,106,873	82,610	4,800	67	3	725,206	454,545
G5	Minerals, ores and concentrates	638	483,724	0	0	0	0	21	426,570
G6	Manufactures	653,201	382,372	8,315	0	1,987	190	742,434	184,111
G7	Livestock, animal-made	18,091	2,620	0	0	34	0	11,450	3,156

Class	General classification	Import	Export	Import	Export	Import	Export	Import	Export
		Road		Rail		Air		Ship	
	products								
Total		1,602,075	2,726,727	119,798	4,800	2,490	12,310	3,673,006	2,280,650

The volume registered at the border points has been assigned to the corresponding zone. The arrival volumes have been distributed between the destination zones with the same patterns of the survey, as well as the volumes leaving the country. Once obtained the volume of freight in each group of classification, a process of surplus and deficit analysis is undertaken. Moreover, there are some trucks in the network crossing Albanian borders in transit to other destinations. Those trucks have been determined and added to the surplus and deficit vectors as well as to the matrix of vehicles.

As a result of this process, the following table summarizes the obtained results in vector form.

Table II - 66. Surplus Deficit vectors in the Base year 2018

TAZ	CODE	Base year surplus_2018	Base Year Deficit_2018	TAZ	CODE	Base year surplus_2018	Base Year Deficit_2018
Tropoje	1	244	229	Peqin	41	0	343
Mallakaster	2	925	109	Permet	42	18	118
Belsh	3	3	241	Diber	43	18	650
Berat	4	0	492	Pogradec	44	149	755
Devoll	5	62	308	Poliçan	45	72	80
Bulqize	6	739	317	Prrenjas	46	12	303
Mat	7	17	300	Puke	47	88	132
Cerrik	8	0	367	Pustec	48	64	39
Skrapar	9	311	103	Rinas	49	392	287
Delvine	10	10	101	Roskovec	50	76	257
Divjake	11	299	405	Mirdite	51	299	233
Dropull	12	27	38	Rrogozhina	52	15	326
Durres	13	0	2,168	Saranda	53	0	353
Elbasan	14	0	1,314	Selenice	54	164	108
Kolonje	15	292	130	Shijak	55	0	431
Fier	16	1,281	188	Shkoder	56	0	1,629

TAZ	CODE	Base year surplus_2018	Base Year Deficit_2018	TAZ	CODE	Base year surplus_2018	Base Year Deficit_2018
Finiq	17	57	140	Tepelena	57	124	50
Fushe Arres	18	99	89	Tirana	58	2,942	7,199
Gjirokaster	19	534	120	Ura Vajgurore	59	0	346
Gramsh	20	165	281	Vau i Dejes	60	5	378
Himare	21	103	63	Vlora	61	38	1,426
Kamez	22	0	2,027	Vora	62	499	273
Kavaje	23	0	422	Montenegro Hani Hotit	63	0	38
Kelcyre	24	8	70	Hani Hotit BC Montenegro	64	1,680	118
Klos	25	26	180	Morine BC Kosovo	65	1,038	1,676
Konispol	26	14	109	Qafe Morine BC Kosovo	66	622	554
Malesi e Madhe	27	95	367	Bllade BC Macedonia	67	0	0
Korça	28	4,830	176	Port of Shengjin	68	1,070	411
Kruje	29	3,799	290	Port of Durres	69	5,567	6,063
Has	30	148	111	Port of Vlora	70	4,932	4,602
Kuçove	31	12	360	Port of Saranda	71	286	561
Kukes	32	1,276	351	Qafbot BC Greece	72	0	292
Kurbin	33	3,578	212	Qafe Thane BC Macedonia	73	455	374
Lezha	34	0	651	Tushemisht BC Macedonia	74	200	203
Libohove	35	8	39	Kapshtice BC Greece	75	333	702
Librazhd	36	424	267	Triurat BC Greece	76	67	67

TAZ	CODE	Base year surplus_2018	Base Year Deficit_2018	TAZ	CODE	Base year surplus_2018	Base Year Deficit_2018
Lushnje	37	173	770	Greece	77	612	589
Maliq	38	76	490	Italy Port of Durres	78	83	92
Memaliaj	39	6	129	Port of Durres Other Countries	79	0	0
Patos	40	5,249	229	Kapshtice BC Turkey	80	0	0
Total						46,807	46,807

The surplus and deficit vectors have been distributed proportionally to the travel distance and balanced to match the vectors and the result of the assignment checked with the observed traffic of cargo vehicles. The matrix obtained is included below.

Table II - 67. Origin Destination matrix in passenger/day for the Base year 2018 in all modes.

Zon	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Tropojë		9	0	0	0	1	0	12	2	18	0	13	5	4	3	0	45	0	1	4
2	Mallakastër	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Belsh	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Berat	5	1	0		0	0	0	1	0	1	1	1	0	0	1	0	0	0	0	0
5	Devoll	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Bulqizë	0	1	0	0	0		0	1	0	1	1	2	1	0	0	0	27	0	0	0
7	Mat	0	0	0	0	0	0		3	0	0	1	1	0	0	0	0	1	0	0	0
8	Cërrik	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
9	Skrapar	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	1	0	0	0
10	Delvinë	1	1	0	0	0	0	0	2	0		2	2	0	0	0	0	6	0	0	0
11	Divjakë	4	5	0	0	0	6	0	3	3	9		13	5	5	5	2	1	24	10	3
12	Dropull	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
13	Durrës	0	0	0	0	0	0	0	0	0	0	0	1		0	0	0	1	0	0	0
14	Elbasan	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	1	0	0	0
15	Kolonjë	1	1	0	0	0	0	0	2	0	0	7	6	0	1		1	6	0	0	0
16	Fier	0	1	0	0	0	1	0	1	0	2	0	3	1	2	1		7	2	1	0
17	Finiq	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0		4	1	0
18	Fushë Arrës	1	10	0	0	0	8	0	7	2	19	5	15	4	5	4	4	62		26	5
19	Gjirokastër	1	6	0	0	0	0	0	6	1	9	8	12	3	3	1	1	56	1		2
20	Gramsh	1	1	0	0	0	0	0	2	0	0	4	4	0	0	0	0	7	0	0	
21	Himarë	0	46	0	0	0	0	0	30	9	68	0	60	23	31	51	0	179	0	0	16
22	Kamëz	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0
23	Kavajë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Këlcyrë	0	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	3	0	0	0
25	Klos	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Konispol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Malësi e Madhe	0	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	4	0	0	0
28	Korçë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Krujë	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	2	0	0	0
30	Has	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Kuçovë	5	27	0	0	0	12	0	37	3	36	0	20	7	9	12	6	25	3	20	11
32	Kukës	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
33	Kurbin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Lezhë	0	22	0	0	0	0	0	54	3	41	0	20	7	7	4	0	91	0	0	7
35	Libohovë	1	21	0	0	0	1	0	43	3	40	0	21	8	8	5	1	85	0	2	8
36	Librazhd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
37	Lushnjë	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	2	0	0	0
38	Maliq	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Memaliaj	1	2	0	0	0	1	0	2	0	3	0	3	1	1	2	1	3	0	2	1
40	Patos	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
41	Peqin	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0
42	Përmet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	Dibër	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
44	Pogradec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Poliçan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Prrenjas	2	1	0	0	0	0	0	1	0	1	1	1	0	1	2	0	0	1	0	0
47	Pukë	2	2	0	0	0	0	0	2	0	1	3	3	0	0	1	0	2	0	0	0
48	Pustec	5	4	0	0	0	1	0	5	1	7	1	5	2	2	2	0	15	1	0	2
49	Rinas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	Roskovec	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
51	Mirditë	66	31	0	0	0	14	286	143	4	69	7	33	10	13	13	8	65	10	22	15
52	Rrogozhinë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	Sarandë	5	2	0	0	0	2	0	3	2	3	16	13	5	3	3	2	4	2	0	1
54	Selenicë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Shijak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	Shkodër	14	16	0	0	0	41	0	15	3	26	24	43	10	11	9	11	649	16	18	9
57	Tepelenë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	Tiranë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	Ura Vajgurore	4	5	0	0	0	3	0	7	1	8	1	7	2	3	3	2	10	0	4	3
60	Vau i Dejës	0	2	0	0	0	0	0	12	0	5	0	2	1	1	0	0	10	0	0	1
61	Vlorë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	Vorë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	MontenegroHar	30	21	0	0	0	15	0	22	2	38	19	16	5	9	8	8	23	125	0	12
64	HotitBCMonte	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	0	0	0
65	MorineBCKosov	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	QafeMorineBC	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0
67	lladeBCMaced	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	0	0	0
68	PortofShengjin	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0
69	PortofDurres	0	0	0	0	0	0	0	1	0	0	2	5	0	0	0	0	8	0	0	0
70	PortofVlora	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
71	PortofSaranda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
72	QafbotBCGreec	0	0	0	0	0	0	0	0	0	0	2	14	0	0	0	0	3	0	0	0
73	QafThaneBCMa	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0
74	ushemishtBCM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0
75	KapshticeBCGr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	TriuratBCGree	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	ItalyPortofDu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	P.ofD.Otherc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
80	KapshticeBCTu	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	1	0	0	0
Tot		**157**	**241**	**0**	**0**	**1**	**108**	**286**	**431**	**40**	**406**	**120**	**353**	**102**	**119**	**129**	**50**	**1,425**	**189**	**109**	**103**

Zon	Name	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1	Tropojë	1	5	16	10	12	15	27	33	8	4	238	16	15	2	1	31	13	22	16	1
2	Mallakastër	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3	Belsh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Berat	4	1	4	1	1	0	2	7	2	2	46	3	2	5	4	7	3	6	8	5
5	Devoll	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Bulqizë	0	0	1	1	2	2	2	4	0	1	27	0	0	0	1	1	0	1	1	0
7	Mat	0	0	0	0	1	1	0	9	0	3	210	0	0	0	7	1	0	6	3	1
8	Cërrik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Skrapar	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
10	Delvinë	0	0	1	0	4	4	0	17	0	8	109	0	0	0	4	1	0	4	3	1
11	Divjakë	0	6	18	7	14	7	20	25	8	9	0	8	6	11	7	16	3	12	10	4
12	Dropull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Durrës	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0
14	Elbasan	0	0	0	0	1	0	0	1	0	0	8	0	0	0	0	0	0	0	0	0
15	Kolonjë	3	0	4	0	4	3	0	15	0	3	105	0	0	0	4	2	0	4	4	1
16	Fier	0	1	2	1	2	2	3	3	1	1	11	1	1	1	1	2	0	1	1	0
17	Finiq	0	0	1	0	1	1	2	2	1	1	0	0	0	1	1	1	0	1	1	0
18	Fushë Arrës	2	8	19	8	36	26	54	44	8	20	130	6	5	4	5	14	3	11	4	3
19	Gjirokastër	2	1	6	4	17	16	20	30	2	8	176	3	2	1	6	7	2	7	6	1
20	Gramsh	1	0	2	0	11	6	0	18	0	5	113	0	0	0	5	1	0	4	3	1
21	Himarë		136	281	77	51	70	109	140	42	9	632	44	30	0	0	100	18	20	40	0
22	Kamëz	1		1	0	1	1	0	3	0	1	21	0	0	0	1	0	0	1	1	0
23	Kavajë	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Këlcyrë	1	0	1		2	2	0	15	0	2	71	0	0	0	2	0	0	2	1	0
25	Klos	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Konispol	0	0	0	0	0		0	1	0	0	2	0	0	0	0	0	0	0	0	0
27	Malësi e Madhe	0	0	1	0	4	4		11	0	5	58	0	0	0	2	1	0	2	1	0
28	Korçë	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
29	Krujë	0	0	2	0	2	1	0	19		2	69	0	0	0	2	1	0	2	1	0
30	Has	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
31	Kuçovë	8	33	84	34	43	33	65	171	48	53		37	35	71	4	64	26	63	3	15
32	Kukës	0	0	0	0	0	0	0	2	0	0	23		0	0	1	0	0	1	1	0
33	Kurbin	0	0	0	0	0	0	0	0	0	0	9	0		0	1	0	0	0	0	0
34	Lezhë	0	7	26	21	24	32	65	87	16	8	1,262	37	47		0	61	25	35	28	0
35	Libohovë	1	10	32	21	26	31	63	84	18	11	858	41	50	8		68	53	97	35	2
36	Librazhd	0	0	0	0	0	0	0	1	0	0	9	0	0	0	0		0	0	0	0
37	Lushnjë	0	0	1	0	1	1	0	5	0	2	78	0	0	0	8	1		7	3	1
38	Maliq	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
39	Memaliaj	1	5	11	3	4	3	5	9	5	4	8	7	5	3	0	29	6	7		16
40	Patos	0	0	0	0	0	0	0	1	0	0	8	0	0	0	0	1	0	0	1	
41	Peqin	0	0	0	0	1	1	0	2	0	1	35	0	0	0	2	0	0	2	1	1
42	Përmet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	Dibër	0	0	0	0	0	0	0	2	0	1	26	0	0	0	2	0	0	2	1	0
44	Pogradec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Poliçan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Prrenjas	26	23	14	2	2	0	2	9	3	2	36	2	2	3	2	5	1	3	2	1
47	Pukë	8	2	18	1	3	2	2	29	4	4	120	2	1	3	5	6	1	6	6	2
48	Pustec	5	3	11	4	5	4	10	19	5	3	123	11	8	7	6	37	9	12	73	7
49	Rinas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	Roskovec	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0
51	Mirditë	16	31	76	36	66	50	127	162	38	136	918	42	40	70	38	78	29	85	27	18
52	Rrogozhinë	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
53	Sarandë	12	3	8	3	6	0	5	15	3	4	76	4	3	7	5	7	2	6	4	2
54	Selenicë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Shijak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	Shkodër	22	15	41	16	49	23	58	107	19	39	411	16	13	25	24	35	10	36	20	10
57	Tepelenë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	Tiranë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	Ura Vajgurore	3	7	18	6	10	7	14	31	8	11	122	13	13	13	13	23	13	121	6	6
60	Vau i Dejës	0	1	3	2	3	4	8	10	2	1	207	3	3	0	0	5	2	3	3	0
61	Vlorë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	Vorë	0	0	0	0	0	0	0	1	0	1	7	0	0	0	0	0	0	0	0	0
63	MontenegroHar	53	13	44	22	69	0	102	135	27	47	556	22	20	55	34	42	16	45	23	9
64	HotitBCMonte	0	0	0	0	3	2	0	4	0	1	24	0	0	0	1	0	0	1	1	0
65	MorineBCKosov	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	QafeMorineBC	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
67	lladeBCMaced	0	0	0	0	0	0	0	1	0	0	9	0	0	0	0	0	0	0	0	0
68	PortofShengjin	0	0	0	0	4	2	0	4	0	1	25	0	0	0	1	0	0	1	1	0
69	PortofDurres	0	0	1	0	2	1	0	4	0	1	36	0	0	0	1	0	0	1	1	0
70	PortofVlora	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
71	PortofSaranda	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0
72	QafbotBCGreec	0	0	0	0	1	1	0	2	0	1	16	0	0	0	1	0	0	1	0	0
73	QafThaneBCMa	2	0	3	0	1	1	0	4	0	1	27	0	0	0	1	0	0	1	1	0
74	ushemishtBCM	1	0	2	0	1	1	0	4	0	1	24	0	0	0	1	0	0	1	1	0
75	KapshticeBCGr	0	0	0	0	0	0	0	1	0	0	6	0	0	0	0	0	0	0	0	0
76	TriuratBCGree	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	0	0	0	0	0	0	0	1	0	0	12	0	0	0	1	0	0	1	0	0
78	ItalyPortofDu	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
79	P.ofD.Otherc	0	0	0	0	0	0	0	2	0	1	27	0	0	0	2	0	0	2	2	0
80	KapshticeBCTu	0	0	0	0	1	1	0	3	0	1	38	0	0	0	3	1	0	2	3	1
Tot		**176**	**309**	**756**	**280**	**493**	**360**	**770**	**1,313**	**267**	**422**	**7,197**	**318**	**300**	**291**	**212**	**651**	**234**	**651**	**351**	**110**

Zon	Name	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	Tropojë	19	218	124	12	0	1	1	201	0	0	291	0	23	0	19	117	31	0	3	1
2	Mallakastër	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Belsh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Berat	17	19	4	1	0	9	10	0	0	0	88	0	0	0	0	21	7	0	17	2
5	Devoll	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Bulqizë	0	4	0	1	0	0	1	6	0	0	6	0	2	0	3	40	6	0	0	1
7	Mat	0	13	0	1	0	0	3	0	2	0	30	0	0	0	0	5	15	0	0	13
8	Cërrik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Skrapar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10	Delvinë	0	14	0	4	0	1	5	0	2	1	28	0	0	0	0	12	24	0	0	4
11	Divjakë	6	28	7	6	0	0	1	2	0	0	23	0	27	0	1	7	16	0	2	4
12	Dropull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Durrës	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
14	Elbasan	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
15	Kolonjë	0	17	0	2	0	4	11	0	2	0	17	0	0	0	0	12	16	0	0	3
16	Fier	1	4	1	1	0	0	0	5	0	0	5	0	4	0	3	13	3	0	0	0
17	Finiq	0	2	0	1	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	0
18	Fushë Arrës	4	35	5	14	0	4	7	8	2	1	98	0	44	0	2	173	44	0	2	7
19	Gjirokastër	2	27	2	9	0	3	8	31	2	1	78	0	12	0	10	137	33	0	3	4
20	Gramsh	0	17	0	2	0	1	6	0	2	1	22	0	0	0	0	14	20	0	0	3
21	Himarë	31	82	21	53	0	0	1	527	0	0	228	0	105	0	101	407	72	0	0	0
22	Kamëz	0	3	0	0	0	5	3	0	0	0	3	0	0	0	0	2	3	0	0	1
23	Kavajë	0	0	0	0	0	0	86	10	0	0	53	0	0	0	0	0	0	0	0	0
24	Këlcyrë	0	7	0	1	0	1	3	0	1	0	8	0	0	0	0	4	11	0	0	2
25	Klos	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Konispol	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0
27	Malësi e Madhe	0	8	0	2	0	0	3	0	1	0	17	0	0	0	0	9	13	0	0	2
28	Korçë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Krujë	0	6	0	1	0	0	111	24	1	1	144	0	0	0	0	2	8	0	0	2
30	Has	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Kuçovë	22	128	33	29	0	14	5	0	0	0	458	0	90	0	0	96	140	0	19	64
32	Kukës	0	4	0	0	0	0	144	106	0	1	439	0	0	0	0	1	4	0	0	1
33	Kurbin	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
34	Lezhë	21	92	21	31	0	0	0	339	0	0	307	0	32	0	34	205	101	0	0	0
35	Libohovë	28	154	34	29	0	2	0	402	0	0	286	0	41	0	32	198	91	0	5	4
36	Librazhd	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
37	Lushnjë	0	16	0	1	0	0	15	22	1	1	93	0	0	0	0	2	11	0	0	3
38	Maliq	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Memaliaj	9	18	5	2	0	2	91	536	0	1	370	0	13	0	0	11	9	0	2	2
40	Patos	1	1	0	0	0	0	14	56	0	0	54	0	0	0	0	1	1	0	0	0
41	Peqin		9	0	0	0	0	23	44	0	1	99	0	0	0	0	1	7	0	0	1
42	Përmet	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	Dibër	0	37		0	0	0	1	0	1	0	3	0	0	0	0	1	4	0	0	1
44	Pogradec	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Poliçan	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Prrenjas	1	8	2	1	0		23	0	0	0	101	0	0	0	0	52	6	0	9	1
47	Pukë	0	19	1	3	0	15		0	2	0	209	0	0	0	0	75	13	0	6	3
48	Pustec	12	32	7	5	0	11	14		0	0	399	0	6	0	7	56	17	0	22	2
49	Rinas	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
50	Roskovec	0	1	0	0	0	0	0	0	0		0	0	0	0	0	0	9	0	0	1
51	Mirditë	26	201	38	64	0	57	230	629	6	0		0	98	0	302	479	####	0	56	75
52	Rrogozhinë	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	1	0	0	0
53	Sarandë	1	17	4	2	0	24	19	0	0	0	213	0		0	0	86	15	0	19	3
54	Selenicë	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
55	Shijak	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
56	Shkodër	9	102	15	23	0	89	62	0	5	0	777	0	137	0	0		94	0	51	19
57	Tepelenë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
58	Tiranë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
59	Ura Vajgurore	8	108	18	7	0	5	6	16	3	0	295	0	24	0	1	45	33	0		9
60	Vau i Dejës	2	8	2	4	0	0	0	31	0	0	50	0	3	0	3	22	17	0	0	
61	Vlorë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	Vorë	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
63	MontenegroHar	8	104	23	27	0	109	127	0	0	0	1,438	0	0	0	0	1,075	117	0	133	24
64	HotitBCMonte	0	3	0	1	0	0	1	0	0	0	6	0	0	0	0	6	5	0	0	1
65	MorineBCKosov	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	QafeMorineBC	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
67	lladeBCMaced	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0
68	PortofShengjin	0	4	0	1	0	0	1	0	0	0	5	0	0	0	0	3	5	0	0	1
69	PortofDurres	0	6	0	1	0	0	1	0	0	0	4	0	0	0	0	6	8	0	0	1
70	PortofVlora	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
71	PortofSaranda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
72	QafbotBCGreec	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	2	4	0	0	1
73	QafThaneBCMa	0	4	0	0	0	2	4	0	0	0	5	0	0	0	0	2	4	0	0	1
74	ushemishtBCM	0	4	0	0	0	1	3	0	0	0	4	0	0	0	0	2	3	0	0	1
75	KapshticeBCGr	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
76	TriuratBCGree	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0
78	ItalyPortofDu	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	P.ofD.Otherc	0	14	0	0	0	0	3	3	1	0	12	0	0	0	0	1	4	0	0	1
80	KapshticeBCTu	0	14	0	0	0	0	1	0	1	0	5	0	0	0	0	2	6	0	0	1
Tot		**229**	**####**	**368**	**343**	**0**	**365**	**####**	**####**	**37**	**12**	**6,782**	**0**	**663**	**0**	**518**	**3,407**	**####**	**0**	**350**	**272**

Zon	Name	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	Tot
1	Tropojë	47	13	9	10	12	5	2	2	1	4	3	7	5	1	10	12	10	47	15	8	1,890
2	Mallakastër	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3	Belsh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Berat	9	1	0	0	1	0	0	0	0	0	0	0	2	0	1	1	1	5	3	2	351
5	Devoll	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Bulqizë	6	1	1	1	2	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	165
7	Mat	48	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	382
8	Cërrik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Skrapar	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
10	Delvinë	24	0	0	0	2	0	0	0	0	1	0	0	0	0	0	3	0	1	0	0	299
11	Divjakë	12	6	7	7	8	5	3	4	4	5	3	7	14	1	7	7	3	7	2	2	534
12	Dropull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Durrës	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
14	Elbasan	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
15	Kolonjë	24	0	0	0	2	0	0	0	0	1	0	0	0	0	0	3	0	1	0	0	292
16	Fier	3	1	2	2	2	1	0	0	0	8	1	1	1	0	1	1	0	1	0	0	124
17	Finiq	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	38
18	Fushë Arrës	35	12	58	33	26	4	1	5	4	7	3	5	13	1	8	13	3	6	2	1	1,281
19	Gjirokastër	37	7	22	14	15	3	1	1	1	7	2	3	2	0	3	8	2	4	1	1	925
20	Gramsh	25	0	0	0	4	0	0	0	0	1	0	0	0	0	0	3	0	1	0	0	311
21	Himarë	107	49	38	43	56	25	9	8	4	22	16	31	230	16	91	66	22	32	14	10	4,830
22	Kamëz	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	62
23	Kavajë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149
24	Këlcyrë	15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	165
25	Klos	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Konispol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
27	Malësi e Madhe	13	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	173
28	Korçë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Krujë	15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	424
30	Has	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Kuçovë	378	29	11	15	25	8	3	11	7	8	5	10	52	4	37	41	20	36	13	8	2,941
32	Kukës	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	739
33	Kurbin	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
34	Lezhë	296	35	20	21	27	8	3	4	2	7	4	10	6	1	19	31	25	36	13	9	3,798
35	Libohovë	194	32	19	21	26	9	3	4	3	8	5	11	11	1	20	30	27	58	19	13	3,577
36	Librazhd	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
37	Lushnjë	20	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	299
38	Maliq	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Memaliaj	7	2	1	1	2	1	0	1	1	1	1	1	7	1	4	3	3	6	4	3	1,276
40	Patos	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147
41	Peqin	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	244
42	Përmet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	Dibër	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	96
44	Pogradec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Poliçan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Prrenjas	7	1	0	0	1	0	0	0	0	0	0	0	13	1	3	2	1	2	1	0	391
47	Pukë	25	1	0	0	2	0	0	0	0	1	0	0	5	0	10	4	1	2	0	0	641
48	Pustec	24	5	3	3	4	2	1	1	1	2	1	2	4	0	6	5	5	11	6	5	1,095
49	Rinas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	Roskovec	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
51	Mirditë	261	69	20	26	43	12	4	14	9	13	7	14	51	4	33	50	24	46	15	10	6,973
52	Rrogozhinë	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
53	Sarandë	15	2	0	1	2	4	4	1	2	2	2	7	6	0	3	3	2	3	1	1	702
54	Selenicë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Shijak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	Shkodër	93	18	12	17	27	10	3	9	13	15	7	13	27	2	16	24	8	17	6	4	3,629
57	Tepelenë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	Tiranë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	Ura Vajgurore	43	6	3	4	6	2	1	2	2	2	1	3	11	1	7	8	7	25	7	4	1,244
60	Vau i Dejës	37	5	2	2	3	1	0	0	0	1	0	1	1	0	2	3	2	3	1	1	499
61	Vlorë		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	Vorë	2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
63	MontenegroHar	102	29		33	34	7	1	12	7	10	5	8	30	2	19	27	12	23	8	5	5,249
64	HotitBCMonte	5	0	0		2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	76
65	MorineBCKosov	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	QafeMorineBC	1	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
67	lladeBCMaced	2	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	27
68	PortofShengjin	5	0	0	0	1	0	0		0	0	0	0	0	0	0	1	0	0	0	0	72
69	PortofDurres	8	0	0	0	1	0	0	0		0	0	0	0	0	0	1	0	0	0	0	103
70	PortofVlora	1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	6
71	PortofSaranda	1	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	8
72	QafbotBCGreec	4	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	57
73	QafThaneBCMa	6	0	0	0	0	0	0	0	0	0	0	0		0	0	1	0	0	0	0	76
74	ushemishtBCM	5	0	0	0	0	0	0	0	0	0	0	0	0		0	1	0	0	0	0	64
75	KapshticeBCGr	1	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	12
76	TriuratBCGree	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
77	Greece	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	26
78	ItalyPortofDu	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	5
79	P.ofD.Otherc	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0	88
80	KapshticeBCTu	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		99
Tot		**2,025**	**326**	**230**	**257**	**347**	**109**	**38**	**81**	**63**	**130**	**69**	**139**	**491**	**38**	**303**	**368**	**180**	**379**	**132**	**89**	**46,807**

6.2. ASSIGNMENT TO THE NETWORK. CALIBRATION OF THE ASSIGNED RESULTS

The process of calibration consists of the comparison of the traffic observed and the number of vehicles assigned. The assignment has been carried out with the "all or nothing" method. This method is considered valid when a global network for a Country is being developed. Once the model is prepared, the results of the existing situation are properly calibrated by comparison with the real traffic.

After the calibration and the achievement of acceptable results, the transport model is validated, considering that it represents the transport demand in reliable conditions and in alignment with the transport infrastructure supply.

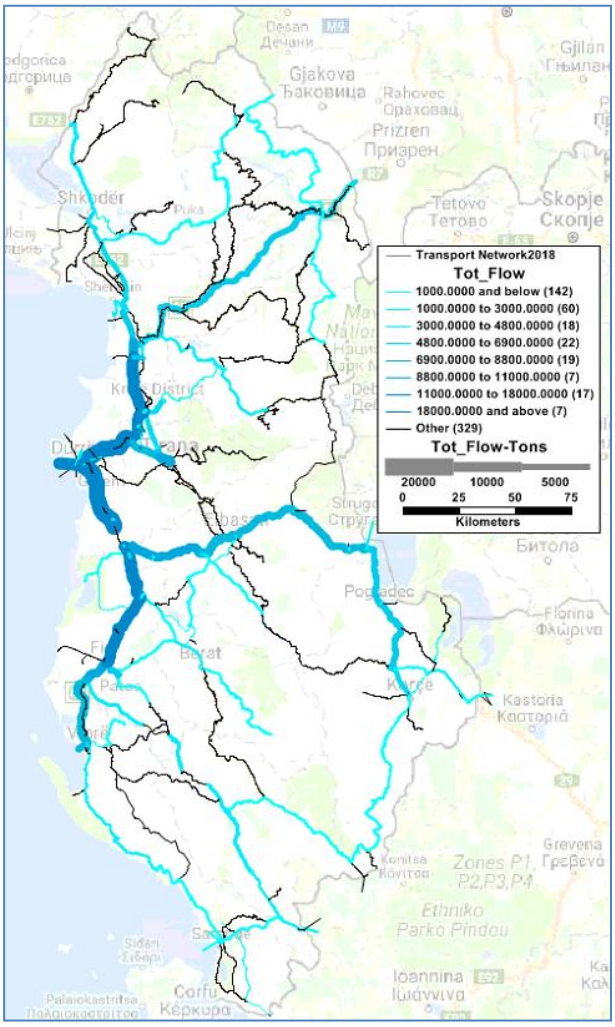
Previously to start the calibration process, the matrix in tons has to be transformed in vehicles by applying the ratio of tons per vehicle observed. The registered ratios are shown in the following table.

Table II - 68. Ratio of cargo.

Type of vehicle	Internal relationship	Average Cargo	External Relationships	Average Cargo
Empty trips	50%		35%	
Pickup+Vans+Small trucks	35%	1.5	3%	2.6
Medium trucks	24%	3	15%	5.2
Heavy trucks	41%	6	82%	13
Average		3,705		11,518

The matrix obtained has been assigned to the network and the result compared to the current volumes of trucks from the counts. The result obtained reflects a good correlation of 0.87 in vehicles.

Figure II - 76. Total daily tons of freight flow in the Base Year 2018.



6.3. CURRENT TRANSPORT PERFORMANCE – BASE YEAR SCENARIO

With the transport model calibrated and validated for the existing situation, the performance of the network in the base year modelled is compared with the main results obtained in the last versions of the plan. For this analysis, a series of parameters have been used, as usual in every transport planning project.

Table II - 69. Total number of tons. Transported and general performances in the Base year 2018. Comparison with the previous versions of the Plan

	2010 ANTP 2	Base year 2018 ANTP 3
Tons transported yearly basis	13,851,000	17,085,737
Total truck vehicles per day	6,704	9,249
Total trucks x km per day	784,058	1,109,071
Average trip length in km	117	119.9

In this version of the Plan, the resulting growth in the number of tons transported is set in 5.4% annually for the period 2010-2018. At the same time, the number of trucks x km had an annual growth of 8.4% in the period 2010-2018.

6.4. TRAFFIC FORECAST – FUTURE SCENARIOS

Regarding the external trips estimation, the estimate of volume of goods accessing or leaving the Country by the different border points is based on the registered evolution of the freight volumes at the border crossings. The following table summarizes the evolution of movements of goods at the border points in the last four years by group of commodities.

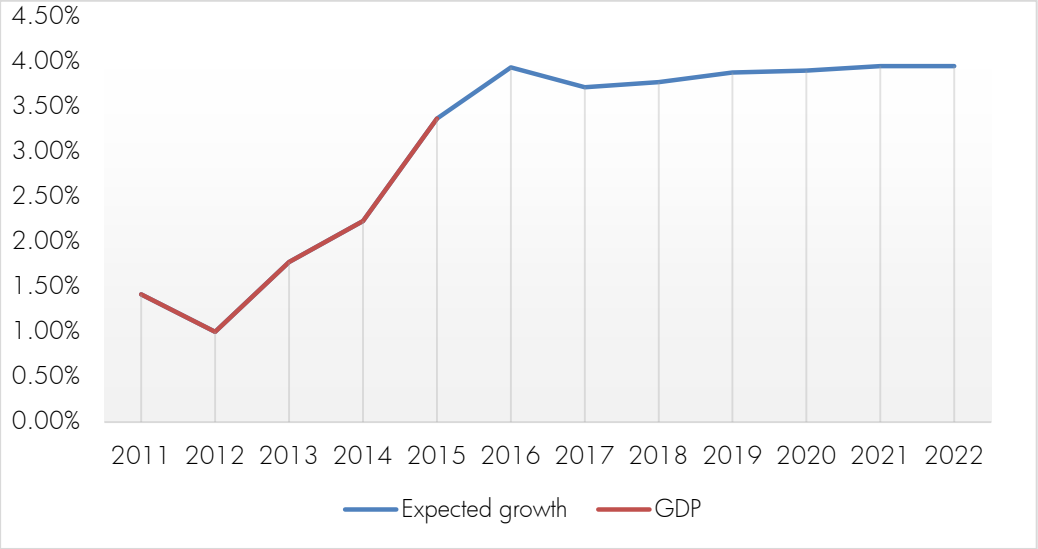
Table II - 70. Evolution of the Import & Export freight traffic in the last years

Export	G1	G2	G3	G4	G5	G6
2013	153,495	5,826	1,125,700	1,217,527	905,286	347,362
2014	140,733	8,047	1,901,058	1,669,919	1,175,767	647,346
2015	201,392	11,731	1,537,298	1,450,928	994,622	448,136
2016	449,207	17,661	1,394,324	2,231,803	946,478	511,229
2017	262,378	23,170	1,689,975	1,566,221	910,294	566,673
Growth	14.3%	41.2%	10.7%	6.5%	0.1%	13.0%
Import	**G1**	**G2**	**G3**	**G4**	**G5**	**G6**
2013	1,047,297	111,869	1,629,671	921,618	8,988	1,183,047
2014	1,046,966	99,889	1,624,174	1,071,409	17,829	1,357,593
2015	1,034,540	112,817	1,497,472	969,185	3,077	1,351,613
2016	1,024,336	127,962	1,698,938	905,910	107,799	1,345,185
2017	1,035,620	151,851	1,630,566	1,140,705	659	1,408,395
Growth	-0.3%	7.9%	0.0%	5.5%	-48.0%	4.5%

The growth in imports and exports during the last four years is set in an annual increase in tons transported of 7.5% in exports and 2.3% in imports. From the point of view of the freight value, registered growth is opposite to the growth in volume. The value exported increases 2.6% while the value of imports increases 4.88%.

The expected growth of the import & export movements of freight is directly related to the GDP growth of the country. Thus, the registered growth of import & export is analyzed regarding the registered growth of the economy in Albania in terms of GDP growth. To do so, the statistics from the IMF have been used in the analysis. In the following figure is shown the statistics and projections from the IMF outlook agenda.

Figure II - 77. Registered and projections of the Albanian GDP from IMF outlook agenda

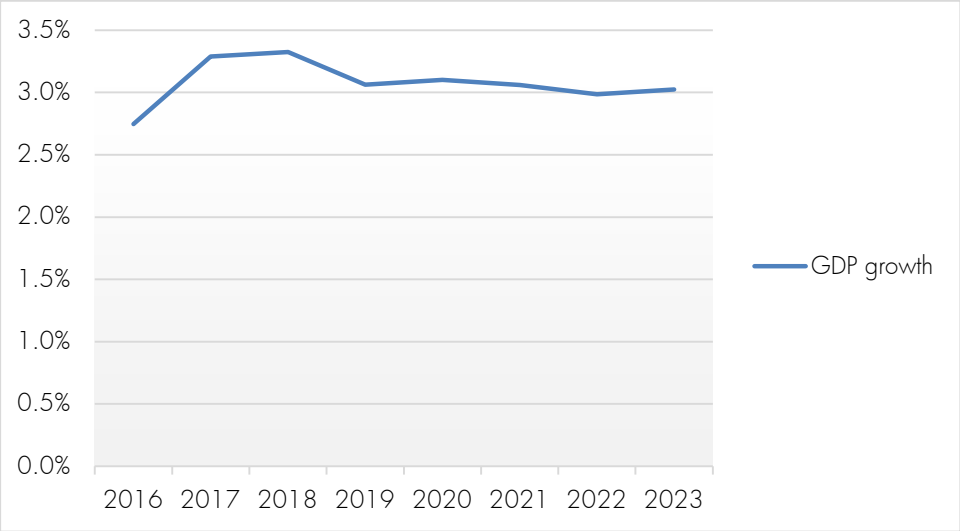


Source: IMF

By means of a regression analysis between GDP growth and Import/Export growth, obtaining R^2 of 0.74, the resulting growth for exports is set in 5.7% annual and 4.5% in imports for the period 2018 to 2038. The internal production of the country is considered to grow in parallel to the GDP, so in consequence an increase of 3.9% is set in the period 2018 to 2038.

The transit movements between border points are related to the GDP in the neighbour countries. From the same source of IMF outlook agenda, the GDP of the neighbour countries have an average expected increase of 3.1% in the same period so this expected growth is applied to the transit movements. In the following figure is shown the projections from the IMF outlook agenda.

Figure II - 78. Projections of the Albanian neighbour countries GDP from IMF outlook agenda



Source: IMF

As a result of this process, the following table summarizes the obtained results in vector form.

Table II - 71. Surplus Deficit vectors in the Base year 2038

TAZ	CODE	Base year surplus_2038	Base Year Deficit_2038	TAZ	CODE	Base year surplus_2038	Base Year Deficit_2038
Tropoje	1	704	467	Peqin	41	0	709
Mallakaster	2	2,123	241	Permet	42	40	242
Belsh	3	6	495	Diber	43	40	1,323
Berat	4	0	972	Pogradec	44	479	1,548
Devoll	5	137	627	Poliçan	45	160	155
Bulqize	6	2,316	642	Prrenjas	46	27	620
Mat	7	37	611	Puke	47	211	268
Cerrik	8	0	759	Pustec	48	143	79
Skrapar	9	693	205	Rinas	49	988	4
Delvine	10	22	207	Roskovec	50	169	524
Divjake	11	667	825	Mirdite	51	783	472
Dropull	12	61	77	Rrogozhina	52	34	666
Durres	13	0	4,385	Saranda	53	0	736
Elbasan	14	0	2,620	Selenice	54	389	219

TAZ	CODE	Base year surplus_2038	Base Year Deficit_2038	TAZ	CODE	Base year surplus_2038	Base Year Deficit_2038
Kolonje	15	652	265	Shijak	55	0	890
Fier	16	3,007	293	Shkoder	56	0	3,326
Finiq	17	128	285	Tepelena	57	285	103
Fushe Arres	18	222	180	Tirana	58	6,650	14,606
Gjirokaster	19	1,221	239	Ura Vajgurore	59	0	716
Gramsh	20	368	572	Vau i Dejes	60	11	775
Himare	21	230	120	Vlora	61	82	2,916
Kamez	22	0	4,236	Vora	62	1,148	574
Kavaje	23	0	830	Montenegro Hani	63	0	122
Kelcyre	24	18	144	Hani Hotit BC Montenegro	64	4,233	379
Klos	25	58	368	Morine BC Kosovo	65	2,080	5,308
Konispol	26	31	223	Qafe Morine BC Kosovo	66	887	5
Malesi e Madhe	27	212	748	Bllade BC Macedonia	67	0	0
Korça	28	10,870	304	Port of Shengjin	68	2,697	1,318
Kruje	29	8,557	567	Port of Durres	69	13,589	19,420
Has	30	458	229	Port of Vlora	70	8,438	11,396
Kuçove	31	60	768	Port of Saranda	71	0	769
Kukes	32	3,796	687	Qafbot BC Greece	72	0	0
Kurbin	33	8,045	428	Qafe Thane BC Macedonia	73	1,147	1,198
Lezha	34	0	1,311	Tushemisht BC Macedonia	74	0	0
Libohove	35	18	80	Kapshtice BC Greece	75	838	2,247

TAZ	CODE	Base year surplus_2038	Base Year Deficit_2038	TAZ	CODE	Base year surplus_2038	Base Year Deficit_2038
Librazhd	36	1,208	527	Triurat BC Greece	76	0	0
Lushnje	37	384	1,527	Greece	77	1,543	1,886
Maliq	38	168	999	Italy Port of Durres	78	0	0
Memaliaj	39	14	266	Port of Durres Other Countries	79	0	0
Patos	40	11,745	484	Kapshtice BC Turkey	80	0	0
						105,329	105,329

The surplus and deficit vectors are distributed by means of a double constraint balancing of the matrix to match the vectors estimated in the year 2038. The obtained matrix is included below.

Table II - 72. Origin Destination matrix in tons/day for the Base year 2038.

Origin Destination matrix in Tons./day for the Base year 2038 .

Zon	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Tropojë	0	0	0	2	0	0	0	1	0	0	0	0	18	7	0	0	0	0	1
2	Mallakastër	4	0	11	32	3	5	5	17	4	5	19	2	65	58	2	1	7	2	16
3	Belsh	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
4	Berat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Devoll	0	0	0	1	0	0	0	1	0	0	0	0	6	6	0	0	0	0	1
6	Bulqizë	0	0	0	1	0	0	0	1	0	0	0	0	11	6	0	0	0	0	1
7	Mat	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0
8	Cërrik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Skrapar	0	0	2	22	0	0	0	7	0	0	0	0	43	36	0	0	0	0	9
10	Delvinë	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
11	Divjakë	0	0	2	8	0	0	0	7	0	0	0	0	50	36	0	0	0	0	5
12	Dropull	0	0	0	1	0	0	0	0	0	0	0	0	5	2	0	0	0	0	5
13	Durrës	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Elbasan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Kolonjë	0	0	1	8	0	0	0	5	0	0	0	0	33	31	0	0	0	0	14
16	Fier	9	57	21	71	16	12	9	27	11	8	37	3	88	87	7	0	11	3	10
17	Finiq	0	0	0	2	0	0	0	1	0	0	0	0	8	4	0	0	0	0	4
18	Fushë Arrës	0	0	0	1	0	0	0	1	0	0	0	0	13	7	0	0	0	0	1
19	Gjirokastër	12	24	11	30	12	16	13	15	7	10	20	7	35	54	11	44	15	4	0
20	Gramsh	0	0	1	5	0	0	0	8	0	0	0	0	23	32	0	0	0	0	2
21	Himarë	0	0	0	3	0	0	0	1	0	0	0	0	17	8	0	0	0	0	4
22	Kamëz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Kavajë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Këlcyrë	0	0	0	1	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
25	Klos	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0
26	Konispol	0	0	0	1	0	0	0	0	0	0	0	0	3	1	0	0	0	0	1
27	Ialësi e Madhe	0	0	0	1	0	0	0	1	0	0	0	0	9	4	0	0	0	0	1
28	Korçë	64	0	98	107	284	92	62	141	33	48	143	18	152	291	107	0	67	20	1
29	Krujë	45	0	47	51	14	78	100	67	15	16	88	6	215	183	9	0	22	19	0
30	Has	2	0	0	1	0	1	0	0	0	0	1	0	4	2	0	0	0	0	0
31	Kuçovë	0	0	0	1	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0
32	Kukës	26	7	5	12	14	21	14	8	4	3	9	1	28	27	6	0	4	10	0
33	Kurbin	59	5	45	54	20	86	105	64	16	17	85	6	193	176	11	0	24	27	0
34	Lezhë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Libohovë	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	1
36	Librazhd	0	0	1	4	0	0	0	5	0	0	0	0	23	55	0	0	0	0	2
37	Lushnjë	0	0	2	8	0	0	0	5	0	0	0	0	26	21	0	0	0	0	3
38	Maliq	0	0	0	2	0	0	0	2	0	0	0	0	8	9	0	0	0	0	2
39	Memaliaj	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
40	Patos	13	0	34	112	21	36	32	45	19	9	62	2	193	218	14	178	13	8	33
41	Peqin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	Përmet	0	0	0	1	0	0	0	0	0	0	0	0	4	2	0	0	0	0	1
43	Dibër	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0
44	Pogradec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Poliçan	0	0	1	9	0	0	0	2	0	0	0	0	10	9	0	0	0	0	2
46	Prrenjas	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
47	Pukë	0	0	0	1	0	0	0	1	0	0	0	0	10	5	0	0	0	0	1
48	Pustec	0	0	0	1	0	0	0	1	0	0	0	0	7	8	0	0	0	0	2
49	Rinas	0	0	1	3	0	0	0	3	0	0	0	0	38	23	0	0	0	0	3
50	Roskovec	0	0	1	5	0	0	0	2	0	0	0	0	9	9	0	0	0	0	2
51	Mirditë	0	0	0	2	0	0	0	2	0	0	0	0	27	12	0	0	0	0	2
52	Rrogozhinë	0	0	0	1	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0
53	Sarandë	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	Selenicë	1	0	1	4	0	1	1	2	1	1	2	0	12	7	0	0	2	0	1
55	Shijak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	Shkodër	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	Tepelenë	2	2	2	5	1	2	2	2	1	2	4	1	7	7	1	4	3	1	1
58	Tiranë	43	42	55	84	65	73	69	84	23	15	72	5	281	338	25	5	20	17	0
59	Ura Vajgurore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	Vau i Dejës	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
61	Vlorë	1	2	1	2	0	1	1	1	0	0	2	0	3	4	0	7	0	0	0
62	Vorë	4	0	5	6	1	6	6	7	2	2	11	1	36	21	1	0	2	2	0
63	IontenegroHar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	HHotitBCMonte	41	2	20	26	11	34	32	27	9	10	38	4	66	71	6	0	14	17	0
65	IorineBCKosov	20	0	6	9	5	18	14	9	3	3	11	1	28	31	3	1	4	9	1
66	QafeMorineBCI	32	0	1	3	2	6	5	2	1	1	2	0	14	14	1	1	1	4	2
67	IladeBCMaced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	PortofShengjin	16	9	10	20	15	26	26	15	5	4	17	1	67	61	6	0	6	7	2
69	PortofDurres	52	49	63	131	61	84	80	101	30	21	140	7	2,220	322	26	17	29	21	15
70	PortofVlora	18	41	34	101	31	32	26	51	18	20	53	5	195	219	19	29	28	8	51
71	PortofSaranda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	QafbotBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	QafThaneBCMa	1	0	3	5	3	3	2	6	1	0	2	0	20	45	1	1	0	0	4
74	ushemishtBCM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75	KapshticeBCGre	1	0	2	3	43	5	3	3	1	1	3	0	11	17	4	1	1	1	2
76	TriuratBCGreec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	Greece	2	0	3	9	4	6	5	5	2	8	5	6	24	25	4	2	11	1	27
78	ItalyPortofDu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	P.ofD.Otherc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	KapshticeBCTu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot		**467**	**241**	**495**	**972**	**627**	**642**	**611**	**759**	**205**	**207**	**825**	**77**	**4,385**	**2,620**	**265**	**293**	**285**	**180**	**239**

Zon	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
1	0	0	24	2	0	0	0	0	1	0	1	1	3	5	4	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0
2	7	1	74	16	5	3	5	4	3	2	2	31	13	12	14	2	5	39	3	15	45	17	6	14	12	2	6	2	0	0	28	3
3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	9	1	0	0	0	0	2	0	0	1	1	2	1	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0
6	0	0	17	1	0	0	0	0	0	0	0	1	2	4	3	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0
7	0	0	5	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	53	10	1	0	0	0	1	0	2	12	7	10	9	0	0	0	0	2	0	5	1	3	3	0	0	0	0	0	0	0
10	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	52	17	0	0	0	0	1	0	1	8	6	9	8	0	0	0	0	1	0	9	0	2	2	0	0	0	0	0	0	0
12	0	0	5	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	50	7	1	0	0	0	6	0	2	6	9	9	9	0	0	0	0	3	0	4	2	3	9	0	1	0	0	0	0	0
16	17	8	72	40	6	6	8	10	4	8	7	53	8	10	22	3	16	108	25	14	119	29	9	28	38	10	15	4	2	0	68	7
17	0	0	9	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
18	0	0	21	2	0	0	0	0	0	0	2	1	7	6	5	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0
19	14	8	27	19	7	8	11	15	1	24	8	17	21	15	26	7	16	43	30	10	16	13	11	33	39	8	15	5	3	0	15	5
20	0	0	34	5	0	0	0	0	1	0	1	5	2	5	4	0	0	0	0	0	0	3	0	1	2	0	0	0	0	0	0	0
21	0	0	18	3	0	0	0	0	0	0	0	2	2	3	3	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	7	1	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	15	1	0	0	0	0	0	0	0	1	1	4	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
28	162	8	229	18	35	47	52	44	0	0	0	151	84	0	41	19	87	226	481	47	81	114	64	208	593	16	193	30	35	0	92	38
29	44	4	641	16	9	54	18	44	0	0	0	70	60	1	73	6	33	137	12	16	44	67	15	128	56	7	41	27	2	0	46	53
30	0	0	6	0	0	0	0	0	0	0	0	1	4	1	1	0	0	1	0	0	0	0	0	2	1	0	0	0	0	0	0	0
31	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	8	3	20	10	2	9	4	14	3	9	48	9	0	1	20	1	14	16	21	3	3	7	3	85	33	3	13	11	2	0	4	16
33	45	5	419	24	10	58	19	71	2	17	5	68	73	0	205	6	37	133	23	17	42	63	16	144	69	9	44	39	3	0	44	110
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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36	0	0	43	5	0	0	0	0	1	0	1	4	4	6	5	0	0	0	0	0	0	3	0	2	4	0	1	0	0	0	0	0
37	0	0	27	11	0	0	0	0	0	0	1	9	3	5	4	0	0	0	0	1	0	5	0	1	1	0	0	0	0	0	0	0
38	0	0	12	2	0	0	0	0	4	0	1	1	2	2	2	0	0	0	0	0	0	1	0	1	5	0	0	0	0	0	0	0
39	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	37	11	171	76	8	19	11	37	81	90	15	1	38	57	73	3	43	166	49	16	0	45	14	68	73	18	31	13	4	0	55	25
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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64	21	3	103	9	6	20	12	261	1	4	2	32	35	2	47	4	16	57	12	9	20	27	9	66	35	4	21	32	1	0	22	27
65	7	1	41	5	2	9	4	12	8	12	11	8	120	10	19	1	9	17	7	3	5	8	3	61	18	2	10	11	1	0	6	15
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68	13	4	87	21	3	15	5	36	5	26	12	15	12	27	241	2	16	29	22	5	6	14	5	46	37	4	15	13	2	0	8	26
69	73	17	535	269	15	48	23	76	30	142	35	103	55	77	171	8	74	254	101	26	42	130	26	155	155	26	68	31	8	545	54	57
70	33	26	195	80	14	17	21	31	43	52	20	49	41	50	73	6	38	118	56	32	25	48	23	73	84	17	33	12	4	0	36	20
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80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot	**572**	**120**	**4,236**	**830**	**144**	**368**	**223**	**748**	**304**	**567**	**229**	**768**	**687**	**428**	**1,311**	**80**	**527**	**1,527**	**999**	**266**	**484**	**709**	**242**	**1,323**	**1,548**	**155**	**620**	**268**	**79**	**545**	**524**	**472**

Zon	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	Tot
1	0	1	0	2	24	0	91	1	1	5	3	2	1	89	0	0	0	382	4	0	0	26	0	1	0	0	0	0	0	704
2	13	24	1	12	52	2	343	30	7	109	9	6	5	47	0	0	11	221	495	18	0	7	0	26	0	32	0	0	0	2,123
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	1	0	1	6	0	38	1	0	2	1	1	0	0	0	0	0	9	6	0	0	2	0	32	0	0	0	0	0	137
6	0	1	0	1	11	0	63	1	0	2	2	1	1	226	0	0	0	1,782	3	0	0	169	0	1	0	0	0	0	0	2,316
7	0	0	0	0	3	0	19	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	37
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	8	0	4	36	1	232	9	2	15	8	6	2	0	0	0	0	67	53	0	0	5	0	9	0	0	0	0	0	693
10	0	3	0	0	1	0	8	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
11	1	5	0	5	30	1	224	5	1	12	8	5	2	0	0	0	0	85	47	0	0	4	0	6	0	0	0	0	0	667
12	0	4	0	0	3	0	20	1	0	3	1	0	0	0	0	0	0	2	3	0	0	0	0	0	0	1	0	0	0	61
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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15	0	12	0	3	36	1	214	4	2	13	7	6	3	0	0	0	0	52	46	0	0	10	0	30	0	0	0	0	0	652
16	25	30	17	14	70	9	258	53	12	124	14	6	4	13	0	0	8	284	639	4	0	5	0	34	0	121	0	0	0	3,007
17	0	31	0	1	5	0	35	1	0	6	1	0	0	0	0	0	0	4	6	0	0	0	0	1	0	0	0	0	0	128
18	0	1	0	1	30	0	81	1	2	3	3	4	2	0	0	0	0	15	7	0	0	1	0	2	0	0	0	0	0	222
19	13	29	13	8	61	4	0	18	16	3	8	0	17	3	0	0	8	73	27	2	0	1	0	4	0	82	0	0	0	1,221
20	0	2	0	2	16	0	151	3	1	6	4	2	1	0	0	0	0	25	14	0	0	2	0	5	0	0	0	0	0	368
21	0	10	0	2	12	0	75	2	0	16	3	1	1	0	0	0	0	13	23	0	0	1	0	2	0	0	0	0	0	230
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	1	0	8	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
25	0	0	0	0	4	0	26	0	0	1	1	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	58
26	0	2	0	0	2	0	12	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
27	0	1	0	1	79	0	56	0	1	2	2	5	6	0	0	0	0	9	4	0	0	1	0	1	0	0	0	0	0	212
28	104	129	0	63	172	0	1,310	121	67	374	0	0	0	841	0	0	0	694	1,571	193	0	1	0	0	0	304	0	0	0	10,870
29	76	44	0	117	194	0	2,648	58	76	192	1	0	0	548	0	0	0	946	802	66	0	0	0	0	0	94	0	0	0	8,557
30	0	1	0	1	4	0	23	1	1	2	1	0	0	129	0	0	0	238	6	1	0	18	0	0	0	1	0	0	0	458
31	0	0	0	0	1	0	6	1	0	0	0	0	0	0	0	0	2	19	9	0	0	1	0	4	0	0	0	0	0	60
32	6	9	4	5	54	3	23	7	17	10	6	0	3	1,206	0	0	13	1,585	62	0	0	112	0	24	0	54	0	0	0	3,796
33	69	46	3	92	326	2	1,799	57	123	180	9	0	3	650	0	0	24	880	772	61	0	0	0	13	0	122	0	0	0	8,045
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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36	0	2	0	2	18	0	195	2	1	6	5	2	1	51	0	0	0	599	13	0	0	134	0	5	0	0	0	0	0	1,208
37	1	3	0	3	15	0	118	6	1	7	4	3	1	0	0	0	0	50	33	0	0	2	0	4	0	0	0	0	0	384
38	0	2	0	1	8	0	54	1	0	2	2	1	1	0	0	0	0	14	8	0	0	4	0	12	0	0	0	0	0	168
39	0	0	0	0	1	0	6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
40	48	26	25	37	170	13	900	56	37	38	41	0	84	0	0	0	447	3,412	3,240	0	0	87	0	690	0	0	0	0	0	11,745
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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43	0	0	0	0	3	0	20	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
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46	0	0	0	0	1	0	14	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
47	0	1	0	1	31	0	61	1	2	2	2	3	1	5	0	0	0	41	5	0	0	2	0	1	0	0	0	0	0	211
48	0	2	0	1	8	0	48	1	0	2	1	1	1	0	0	0	0	11	7	0	0	3	0	11	0	0	0	0	0	143
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51	0	2	0	3	38	0	182	1	1	4	7	5	2	39	0	0	0	320	10	0	0	15	0	2	0	0	0	0	0	783
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58	58	40	24	76	254	13	0	51	72	50	134	0	17	1	0	0	76	1,325	353	0	0	4	0	105	0	249	0	0	0	6,650
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61	1	1	2	1	4	0	0	1	1	0	1	0	1	0	0	0	0	5	7	0	0	0	0	0	0	0	0	0	0	82
62	10	4	0	27	18	0	441	7	7	21	0	0	0	50	0	0	0	157	87	7	0	0	0	0	0	9	0	0	0	1,148
63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	28	28	1	27	464	1	503	27	101	95	2	0	0	327	5	0	15	1,075	470	38	0	1	0	11	0	69	0	0	0	4,636
65	8	8	1	9	52	0	202	7	18	24	4	0	14	0	0	0	74	1,273	170	10	0	9	0	74	0	14	0	0	0	2,592
66	2	2	1	3	37	0	89	1	10	1	4	0	18	0	0	0	71	251	77	0	0	8	0	71	0	0	0	0	0	887
67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	12	14	6	15	216	3	241	12	50	19	18	10	15	24	0	0	0	1,003	169	2	0	5	0	43	0	65	0	0	0	3,029
69	140	67	29	292	403	16	1,826	89	93	130	158	19	124	2,055	0	0	233	0	1,787	909	0	706	0	345	0	274	0	0	0	16,596
70	37	90	86	32	211	25	839	56	36	1,331	40	18	51	0	0	0	216	2,404	0	0	0	54	0	556	0	549	0	0	0	8,981
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	1	4	0	3	29	1	182	3	3	3	6	4	6	0	0	0	20	630	266	0	0	0	0	92	0	0	0	0	0	1,527
74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75	2	2	1	2	15	1	69	1	3	1	3	0	8	0	0	0	36	310	202	0	0	18	0	0	0	0	0	0	0	965
76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	3	22	3	4	27	4	122	3	6	6	5	0	14	0	0	0	62	663	257	0	0	13	0	148	0	0	0	0	0	1,700
78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot	**666**	**736**	**219**	**890**	**3,326**	**103**	**14,606**	**716**	**775**	**2,916**	**574**	**122**	**415**	**6,354**	**5**	**0**	**###**	**#####**	**#####**	**1,322**	**0**	**1,583**	**0**	**2,374**	**0**	**2,061**	**0**	**0**	**0**	**110,788**

6.5. TRANSPORT PERFORMANCE YEAR 2038

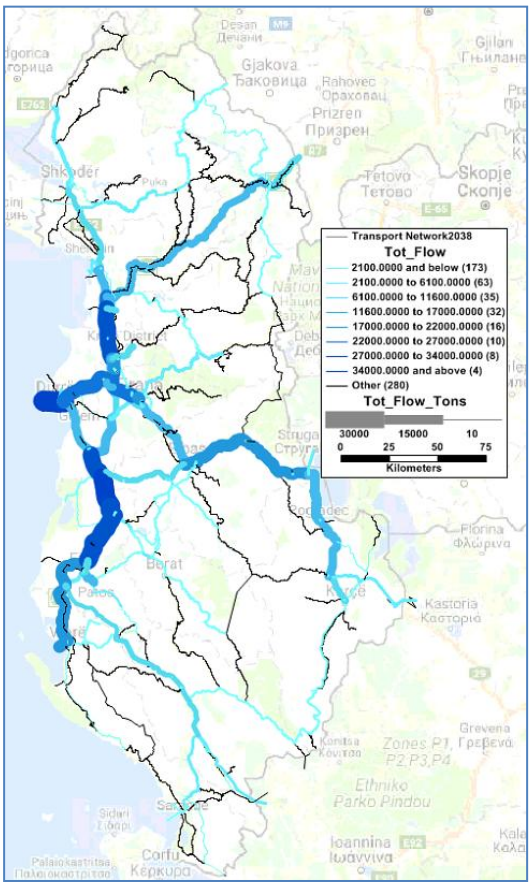
In the same way that in the base year, network parameters have been estimated. The following table summarizes the main results for the base year and for the projected year 2038.

Table II - 73. Total number of tons. transported and general performances in the base year and in the year 2038

	Base year 2018 ANTP 3	Year 2038 ANTP 3
Tons transported yearly basis	17, 085,737	40,437,620
Total truck vehicles per day	9,249	20,615
Total trucks x km per day	1,109,071	2,665,675
Average trip length in km.	119.9	129.3

In this version of the Plan, the resulting growth of the number of tons transported is set in 4.4% annually in the period 2018-2038. At the same time the number of trucks x km are foreseen to have an annual growth of 4.5% in the same period due to a continuous increase of the trip distance in 0.04% per year.

Figure II - 79. Total daily tons. of freight flow in the Year 2038



7. INSTITUTIONAL AND LEGAL SETTING

Albania has got the status of the candidate country of the EU in June 2014 and is looking forward to opening the negotiations. The Stabilization and Association Agreement (SAA) has been in force since April 2009, and Albania has begun a regular political and economic dialogue with the EU through the relevant structures under the SAA. The Ministry of Infrastructure and Energy is representing Albania at the working parties between Albania and EU for the transport issues, as the primary institution dealing with the governance of transport.

Since the approval of the ANTP2 Albania has made progress in the transport sector by adopting legislation, preparing strategic documents and building capacities. A set of strategic papers like Road Tolling Strategy, Albania Sustainable Transport Plan and the Strategy of Transport 2016-2020 with it is action plan is being adopted.[2]

The signing of the Transport Community Treaty (TCT) from WB6 Prime Ministers in High-Level Summit of Trieste, on 12 July 2017 represents the most significant achievement in the regional cooperation in the transport sector. TCT will take the South East Europe Transport Observatory position in a smooth transition, inheriting all of the work done so far. Albania approved provisional implementation of the Transport Community Treaty. The law was adopted from the Albanian Parliament on 16 January 2018. TCT and the European Common Aviation Area ECAA agreement, with their respective annexes, will show the roadmap that Albania has to follow to become part of the EU.

National Investment Committee NIC, is in charge of the prioritization of projects in transport, energy environment, etc. The Inter-ministerial Strategic Planning Committee plays the role of NIC set up by Prime Minister Order. The National Strategic Projects Pipeline (NSPP) is another document prepared recently for establishing a multi-annual, medium to long-term planning tool for the public investments in Albania. NSPP will serve as a basis for all EU funding via the West Balkan Infrastructure Facility, WBIF, and national IPA programme. There is also a dedicated unit for this purpose within the Prime Minister's Office. The National Development Projects Unit, under the Department of Development and Good Governance, focuses on national development projects with high national and regional impact. The ministry has set up by an order of the minister a dedicated working group (Strategic Management Groups) to deal with development projects.

The preparation of 2018 NSPP, based on the revision of the former one is undergoing, aiming to improve the overall development of Sectorial Strategic Projects Pipeline (SSPP) and NSPP. Line ministries prepared the first draft of SSPP in June – August 2018, under the guidance and the coordination of the General Secretariat of National Investment Council (NIC)/Strategic Planning Committee (SPC). This process included the transport sector (road railway, maritime and air) among the other areas like environment, energy, telecommunication education, etc.

Albania is an active member of the International institutions like:

- South East Europe Transport Observatory, SEETO which is in the way of the transition to Transport Community Treaty, TCT
- Regional Cooperation Council, RCC
- United Nations Economic Commission for Europe, UNECE
- International Transport Forum, ITF
- International Road Union, IRU
- Secretariat of Corridor VIII
- European vehicle and driving license information system EUCARIS

[2] Sectorial Strategy of Transport and Action Plan 2016-2020 approved with VKM.No.811, Date 16.11.2016.

- International Union of Railways, UIC
- International Maritime Organization, IMO
- International Chamber of Shipping, ICS
- International Civil Aviation Organization, ICAO
- European Civil Aviation Conference, ECAC
- European Organization for Air Navigation Safety, EUROCONTROL.

There is also part with a full membership at the following initiatives

- BSEC - Black Sea Economic Cooperation
- CEI - Central Europe Initiative
- SECI - South East Cooperation Initiative
- AII - The Adriatic-Ionian Initiative
- UfM - Union for the Mediterranean
- JSPA - Joint Service Provision Area

Transport activity in the Republic of Albania is regulated by Legal Code for each type of transport as the highest legal level:

- Road Code, Law No. 8378, dated 22.7.1998 (as amended by: Laws No. 8738, dated 12.2.2001, No. 9189, dated 12.2.2004, No. 9808, dated 24.9.2007, Law No. 10488, dated 5.12.2011, No. 175/2014, dated 18.12.2014);
- Rail Code, Law No. 142/2016;
- Maritime Code, Law 9251, dated 8.7.2004, as amended by Law No. 10483, dated 17.11.201;
- Air Code, Law No. 10040, dated 22.12.2008 as amended by the Law No. 10484, dated 24.11.2011. Finally, a new draft of the aforementioned code is being discussed in parliamentary committees after the adoption of the DCM in June 2018.

These codes, that are the bases on each field of transport activities, are approved by 3/5 of the votes in parliament and therefore are more sustainable. Here are the ways of developing the activity, the main enforcement and control organs, while there are also other legal acts approved by the Parliament for the establishment and functioning of these organs as well as legal acts such as DCM (Council of Ministers), Orders and Guidelines (Minister).

Secondary Institutions operate according to the legal basis below:

- ARA - Law no. 10 164, dated 15.10.2009 "On the Albanian Road Authority";
- GRDTS - The General Directorate of Road Transport Services was established by the Decision of the Council of Ministers no. 343, Dt. 07.21.1999;
- General Maritime Directorate - Law no. 10109, dated 02.04.2009 "On the Maritime Administration of the Republic of Albania";
- The Railway Inspection Directorate - was established as an independent body from the Albanian Railways with the DCM in 1981 and with the changes in the new railway code is in the process of transformation into the Railway Safety Authority;
- Albanian Civil Aviation Authority - Law no. 10 233, dated 11.2.2010 "On Civil Aviation Authority", Amended by Law no. 10 479, Date 10.11.2011 For Some Amendments and Additions In Law no. 10 233, dated 11.2.2010 "On the Civil Aviation Authority" and Law no. 168/2014 For Some Amendments and Additions to Law no. 10 233, dated 11.2.2010 "On the Civil Aviation Authority";

- NIBAAI - VKM No. 686, dated 02.06.2010, "On the Establishment of the National Civil Aviation Investigation Body for Acident/Incident";
- DCM No. 74. Date 02.02.2011 "On the Creation and Functioning of the National Civil Aviation Safety Committee";
- Transport Institute - was established in 1985 and today operates in accordance with DCM 861 dated 21.11.2007.

In addition to the above-mentioned laws, the transport activity is subject to other laws such as the law on environmental protection, licensing legislation, public procurement, and other sub-legal acts.

7.1. DRAFT GENERAL TRANSPORT LAW

The Legal Action Plan proposed on the ANTP2 remains valid and ongoing with the exception of the "umbrella law". No action has been taken up to now. It will need to be discussed with the legal experts beyond the MIE if it fits on the overall legal framework of Albanian Constitution.

The draft general transport law proposed by the consultant on the ANTP2 goes beyond the Ministry of Infrastructure and Energy as it will have implications on the overall legislative framework in Albania.

This task is evaluated as necessary with the new Transport Community Treaty coming into force, following the other EC countries best practices. There is a lot of work to be done not only for the infrastructure improvement to remove the physical barriers, but also for the approximation of Legislation with EU as a non-physical barrier. The European legislation to be reviewed is included under the annexes of the TCT and those annexes will serve as a guideline for the transport sector.

The new general law was proposed in the previous version of the ANTP, and remains at the action plan of ANTP3, with the precondition to not affect the Legal Codes which needs 3/5 of votes in Parliament.

This General Transport Law will cover the economic aspect of transport and will be more flexible to adopt towards the transport dynamics of the EC Regulation. It will need the involvement of the Ministry of Justice and in the case that it will be evaluated as doable, probably a technical assistance/ expertise from the countries with the similar experience.

8. INSTITUTIONAL FRAMEWORK

8.1. MISSION STATEMENT

The Mission of MIE as posted on its website is drafting and implementation of general state policy, in the urban planning and urban development, infrastructure, transport, telecommunications, and postal services sectors, energy sector, energy and mining resources, and industry. This formulation is very generic due to the merging of three different ministries to MIE, compared with the former formulation dedicated to the transport sector only.

We assume that the mission of the Ministry for the transport sector has remained the same as the one stated at the ANTP2 that covers all modes of transport and provides a sound basis on which the sector can be managed:

- "To develop and rehabilitate road, rail, port and airport infrastructure and secure the necessary financial resources to develop the system in a harmonized way in order to support and encourage the development of the economy of the country and meet demands of European Transport in the southern region of Europe"
- "To implement economic reforms, through the promotion of privatization of remaining activities, the commercialization of public services, as well as through increasing recovery of costs through a prices and levies policy"
- "To create a regulatory and legal system according to European demands and standards, which will secure optimal operation of transport services on the basis of the high level of competition"
- "To develop and carry out institutional reforms in all sectors of the economy"

8.2. THE MINISTRY AND MODAL AGENCY MISSION STATEMENTS AND OBJECTIVES

The Transport Sector Strategy and its Action Plan 2016 – 2020 was approved by the Decision of Council of Ministers No 811 of 16.11.2016 "On the approval of the Transport Sector Strategy and its Action Plan 2016 – 2020", and entered into force on 25.11.2016.

On 20 June 2018, Ministry of Infrastructure and Energy endorsed the first Monitoring Progress Report on the Implementation of the Transport Strategy and Action Plan 2016 – 2020 for all modes of transport: road, air, sea, rail and intermodal and of ongoing infrastructure projects, as well as progress made in the framework of regional cooperation initiatives and the Connectivity Agenda.

The Ministry develops the policy, designs strategies, budgeting and follows the implementation of programs for all modes of transport through:

- "The General Directorate of the Policies and Development for the Infrastructure and the Territory" that leads the transport sector, followed by the Directorate of Policies and strategies for the development of the transport and infrastructure, in the hierarchy, then there are the sectors of policies, corresponding to each mode of transport.
- "The General Economic Directorate and the Supporting Services" is responsible for the budget formulation for all modes of transport according to the needs. There is also a directory for the Public Private Partnership on the field of Infrastructure.

The secondary institutions in the transport sector and their mission and objectives are as follows.

8.2.1. IT Institute of Transport

Creation and maintenance of the transport database, support to the Ministry with data and analytical tools for developing the policies and strategies including the process of monitoring and updating of the national transport plan.

- Functioning as a data resource centre for the information of the transport sector (creation, maintenance and update of the transport database).
- Maintenance and update of the ANTP and the related investment program.

8.2.2. Road sector

ARA Albanian Road Authority,

Management of the national road network by the Road code and ARA law:

- Fulfilment of obligations under the Road Code.
- Establishes electronic traffic management centres and approves their status.
- Ensures safety for all road users in all the activities they organize.
- Establishes and maintains the system for the management of roads and bridges.
- Assist in the annual updates and five-year reviews of the National Transport Plan for the road transport sector, in cooperation with the Transport Institute.
- Maintain and implement the Albanian Road Design and Construction Standards.
- Takes initiatives for studies, research, and experimentation on efficiency, traffic, traffic, and road safety.
- Prepares mid-term development programs and annual work program for construction, reconstruction, maintenance, preservation, and development of national road network following the priorities set out in the strategic documents.

GRDTS General Directorate of Road Transport Services

The object of the activity of this directorate is the service to the physical and legal entities, state and private, in the operation of road transport for:

- Registration of vehicles (their equipment with license plates and licenses, registration of their owners and equipment with a certificate of ownership, licensing and certification of vehicles).
- Monitoring the qualification of road vehicle drivers and equipping them with driving licenses.
- Compulsory technical control of road vehicles, unless otherwise provided by law (Since 2010 this activity was outsourced to, SGS Automotive Albania, Concessionary Contract).
- The creation of a national electronic register of assets and their management and the transmission of data required by the bodies designated by law.
- Performing the activity of the tax agent, according to legal definitions.
- Issuance of driving license licenses, testimonies of taxi drivers, practice instructors, theory, etc.
- Specialized training in the field of road transport, for the provision of applicants with evidence of professional ability
- The qualified oversight of road transport operators during the course of their activity as well as any other activity facility in the road transport service permitted by law and bylaws in force.

8.2.3. Maritime sector

GMD General Maritime Directorate

GMD is organized and functions as the maritime administration of the Republic of Albania, in compliance with the obligations imposed by the national and international legal acts in the field of naval affairs:

- All the constituent structures of the maritime administration, carrying out their activity following the purpose of the marine code.

- All ports of the Republic of Albania, irrespective of their status.
- Sailing means, included in the register of vessels of the Republic of Albania, regardless of their location and activity.
- Foreign assets when they are in ports and waters within the territorial jurisdiction of the Republic of Albania.
- All natural and legal persons who exercise their operation under the content of this law.

8.2.4. Railway sector

DRI Directorate of Rail Inspections

The Directorate of Railway Inspection is responsible for controlling the implementation of the provisions of the Railway Code. This Directorate, which is dependent on the ministry covering the transport, is responsible for controlling the implementation of the legal and sub-legal acts and ensuring the implementation of the rules for:

- The protection, maintenance, remodelling and reconstruction of the railway infrastructure.
- The safe movement of trains.
- Technical control of Rolling Stock in use.
- All the procedures followed during acceptance for the use of railway vehicles.

8.2.5. Aviation sector

Albanian Civil Aviation Authority

The Authority activity is the regulation and supervision of all operations in the area of civil air transport in the Republic of Albania.

The mission is to create a civil aviation environment in line with international standards, through continuous monitoring, interaction with operators and a high level of professional competence of AAC staff.

The Civil Aviation Authority has clear responsibilities for regulating and supervising the safety of all civil aviation activities in the Republic of Albania, according to Law no. 10.040 dated 22.12.2008 "Air Code of the Republic of Albania" as amended. Being a member of the International Aviation Organizations, by their respective obligations, they are fully committed to contributing "to ensure a safe and orderly increase of international civil aviation globally."

- The safety promotion objectives are integrated with the ICAO / ECAC, / EASAs and EUROCONTROL systems transposed into the primary and secondary civil aviation legislation in the Republic of Albania, the Air Code, the Law on the Authority of the CAA and the DCMs, the Orders, the Guidelines with the purpose to guarantee a safe air transport.
- AAC is geared towards meeting effectively and efficiently the needs of passengers and society as a whole. AAC seeks to promote the development of civil aviation and to simplify economic growth throughout the country, through sustained and continuous cooperation with all involved parties.
- Ensuring sufficient financial resources so that staff has the appropriate skills and training to fulfill their responsibilities, whether regarding safety, security or other functions. ACA seeks to promote the concepts and principles of safety management and educate aviation service providers and operators with these concepts.

National Investigation Body of Air Accident/Incident

The National Investigation Body of Air Accident/Incident was established in June 2010. It is responsible for investigating air accidents/incidents within the airspace of the Republic of Albania.

The goal of NIBAAI is to improve flight safety by:

- Determine, if possible, the causes of air accidents and incidents;
- Making safety recommendations aimed at preventing the same events in the future.

8.3. REFORMS OF THE MINISTRY

Since the approval of first five-year review of the Albanian National Transport Plan, ANTP2, most of the institutions and authorities recommended are in a place like ARA, ACAA, GMD performing their executive and regulatory duties. The Ministry itself has been changed in years, from the Ministry of Transport and Public Works to the Ministry of Transport and Infrastructure during the period 2013-2017, to the Ministry of Infrastructure and Energy from 2017 up to date.

The Ministry has a much broader field as it includes the energy, territorial planning, industry, etc., but on the other side, this structure facilitates the coordination between the sectors.

With a new structure approved in May 2018 by order of Prime Minister, there are more evident the modes of transport. Directory of Transport and Infrastructure Policies and Development Strategies falls under the General Directorate of Infrastructure and Territory Policies and Development. All modes of transportation policies are detailed on the sector level.

The next directories under the same GD are the Directorate of Transport, Infrastructure, and Urban Development Program and the Directorate of Conception and Feasibility of the Transport and Infrastructure Project

The Road Safety issues are addressed from the sector of the Road Safety under The General Regulatory and Compliance Directorate of the Infrastructure and Energy

In the Ministry, there are appointed permanent groups for the preparation of the planning documents like the midterm budget and the list of the Single Sector Pipeline Projects.

8.4. TRANSPORT INSTITUTIONAL REFORMS BY MODE

8.4.1. Road Transport

The Albanian Road Authority instead of the former General Directorate of Roads with 12 directories, now it has one central office and three regional directorates were the services like design and supervision are outsourced through the public contracts. The highest levels of administration are

- The Management Board
- The General Director

As far as the Road Fund that was recommended by the ANTP is not approved, the authority depends on the state budget allocation and other sources like national or international grants and donations.

It is almost the same structure as the one defined at ANTP2 with some minor changes which have to do with the new sector of the PPP projects.

The road maintenance has always been a challenge for the Government budget as far as most of the budget was allocated to the construction and expansion of the road network. Albanian Development Fund is another agency chosen by the IFIs to follow the projects for the reconstruction of rural roads. Sometimes those segments were overlapping with the national road network, and after the construction, were added again to the inventory of ARA by request of the donors to receive the proper maintenance. Today the National Road network it is about 4,072.26 km according to IoT.

The ARA has not signed the Service Level Agreement with the Ministry as proposed within the ARA law even though several drafts have been prepared.

A new scheme for the Road maintenance is in place supported by Word Bank and other IFI. This Project consists of the following components:

- Maintenance Works including monitoring; carrying out periodic and routine maintenance of Primary-Secondary roads within the national network; carrying out activities to monitor roads maintenance and ensure that the defined levels of service are complied with, including (i) carrying out initial road safety audits; (ii) conducting periodic International Road Safety Assessment Program (IRAP) Surveys to ensure that identified additional road safety black spots and required safety enhancements are incorporated in the maintenance Works for the relevant roads, and developing the Social Transparency System.

Now there are in place 5 years contract on the performance basis for the 1,390 km or 1/3 of the Albania National Road Network while ARA is continuing its efforts to support with financing and similar contracts the rest of the National Road network.

The introduction for the first time of the road tolling in Albania has started for the Milot Morine Highway as of 17 Sep 2018.

According to the Road tolling strategy prepared in 2015 other segments will follow. In that case, the government hopes to guarantee the funding for the maintenance of the main sections of the national road network.

Under the 1 Billion USD project there are four projects with a PPP scheme:

- Arbri Road - under construction
- Thumana Kashar – contract suspended
- Milot Balldren – open bid
- Orikum Llogora - open Bid

Albanian Road Design and Construction Standards are in force as of July 2015 for the national road network. All new road infrastructure projects have to follow the ARDACS standards.

It has been approved a 10-year strategy for the road safety 2011-2020, and the results of the statistics have shown a significant improvement in road fatalities for 2017, and it looks like the positive trend will continue during this year.

From 2015 the legislation on the transport of dangerous goods, licensing for road haulers and access to the road transport market was aligned to the EU acquis. The General Directorate for Transport Services, tasked with implementing the law on dangerous goods, has adopted and enforced rules on sanctions and strengthen the capacity of inspection officers to implement the law.

The implementation of the legislation on roadside checks of commercial vehicles is at the initial phase. Form one year now the task force for the roadside check has been suspended. However, a new Task Force has been approved by DCM no. 465, date 26.07.2018 to continue with roadside checks.

The legislation on intelligent transport systems is partially aligned with the acquis. GRDTS has improved the process of the driving license issuance while all the tests are now digitalized.

The agreement with Italy for the removal of the "diritto fisso" tax that was discriminating the Albanian drivers only, has been finally achieved after more than ten years of negotiations on high level bilateral meetings

Common border crossing points are in place with Kosovo and Montenegro while with the FYROM, Montenegro and Kosovo there are agreements for the reciprocal acceptance of the driving licenses on the framework of the non physical barriers removal.

A new Road Asset Management System RAMS project has already started from ARA, under the World Bank financing project.

The Feasibility Study for Adriatic – Ionian Highway/Expressway (Route 2b/Corridor VIII/ Route 2c), 305 km long, financed by WBIF, is under preparation. It started in November 2017, and it is foreseen to be completed within May 2019.

8.4.2. Railway Transport

The approval of the new railway code law 142/2016 was an important step for the sector as it paves the way for the unbundling of the Albania Railways to function according to the EU model and legitimate the sector for financing from the EU and other IFIs.

The separation of the units at the Albanian Railway has not taken place yet. A first step has been made since 2011 with the separation of the accounts of the infrastructure, passenger and freight operation and maintenance for the rolling stock but they are still under the same company.

With all the efforts very little legislative acts have been approved while there are produced several drafts which need to be reviewed for the compliance with the new rail code:

- Regulation no. 2638, dated 10.6.2011 "on the licensing of the activity of railway transporters"
- Regulation no. 3602, dated 18.08.2011 "on the method of loading of freight in the railway wagon"
- Instruction no.10 of 09.07.2012 "on the rules for carriage of passenger and their bags on the railway transport"

The Directorate of Railway Inspection is a different body under the Ministry responsible of Transportation which for the moment is playing the role of the safety authority while the Ministry has all the regulatory licensing and policy role. DRI following the new railway code need to be separated in different authorities like regulatory authority, licensing authority, safety authority and the national Investigation Body for Rail Accidents/Incidents.

As part of the Connectivity Reform Measure Management plan (CRMMP), the Effective Border Crossing Agreements, the joint operation of Joint Railway Station of Tuzi started on 10 July 2017 (so the national Measure "Implementation of the border crossing agreement between Montenegro and Albania as a part of Adriatic – Ionian Initiative project" is accomplished).

The resources allocated for maintaining the railway infrastructure are insufficient, resulting in further deterioration of transport services by rail. That is why the Ministry has accepted the proposal for the concession of 50 km of the railway line at the links Vlora- Fier- Ballsh.

The Albanian Railway under an Anonymous Company status with 100% state-owned capital.

Direction and Administration are carried out by:

a. Supervisory Council

b. Company Administrator

The Supervisory Council monitors and oversees the implementation of trade policies by the Company's Administrator.

Technically, the Albanian Railway is supervised by the Ministry of Infrastructure and Energy financially by the Ministry of Finance and Economy.

The structure of Albanian Railway consists of four business units financially divided, which are:

- Freight railway transport business unit.
- Passenger railway transport business unit.
- Infrastructure management business unit.
- Maintenance of moving assets business unit (locomotives and wagons).

Transport of goods and passengers is performed respectively by the Freight Business Unit operator and the Passenger Business Unit, whom to provide their services utilize the Railway Infrastructure, which is state property. They operate only within the Albanian railway network and do not perform international transport services.

The infrastructure management business unit deals with maintenance, renovation, maintenance of railway infrastructure, organization and regulation of freight and passengers rail traffic.

Maintenance of moving assets business unit (locomotives and wagons) deals with maintenance, repair of rolling stock for the freight and passenger transport.

The primary income of the Albanian Railways is from the freight and passenger transport activity.

The State Budget subsidizes the passenger rail transport service due to the low passenger demand and the high operating cost of old diesel locomotives. Even with the subsidy, the passenger transport is making losses. The subsidy for the passenger transport is not sufficient while this kind of transportation is decreased year by year. One of the reason it was the removal of the Tirana train station in 2012, which affected the line between Tirana and Durres very much. With the new Project financed from the EBRD and EU for the reconstruction Tirana Durre's railway line with an extension to "Mother Teresa" airport, there is a discussion with the municipality for the access to the old central station area in Tirana.

The Albanian Railway network uses 420 km single primary rail lines with a standard width of 1,435 mm and about 100 km secondary lines of industrial stations and ramifications. There are many illegal rail crossing without control.

There are 45 train stations in total, where the process of loading/unloading is carried out.

The northern railway network through the border railway station in Bajza, with the railway network of Montenegro, through the train station in Podgorica, and later with the train station in Belgrade, has ensured the connection of the Albanian railway network with the European railway network in the Corridor X Thessaloniki – Budapest, centred in Belgrade.

Taking into consideration the state of the railway infrastructure system, which does not meet the requirements of the Technical Specifications for the Interoperability of the European Railway System, entry into the Albanian territory of freight wagons originating from import on behalf of domestic or foreign business is realized by a mutual railway agreement between Albania and Montenegro.

In this agreement, the Albanian Railways (once in two years) has the obligation, with its locomotives, to transport goods from the border crossing point of Tuzi in Montenegro to the Bajza border station in Albania and further to the entire Albanian railway network.

The process of extension of European Union states through the inclusion of other geographical regions and states, conditioned the need to expand the European Transport Networks, to include in it the areas bordering each other and the latter with the European Union countries.

The Western Balkan countries, Albania, Kosovo, Montenegro, Serbia, FYROM, Bosnia, Croatia, Slovenia, which are bordered by Central European states, are also part of this process.

The Berlin process, considered as a bridge between the Western Balkans and the EU, in its statement, among others, stressed that the expansion of transport infrastructure in the Western Balkans would be a definite boost for its economic development.

At the 6 prime ministers' summit in Vienna, as a continuation of the process launched in Berlin, one of the critical issues raised in this Summit was the proposal of concrete areas and projects of regional cooperation in the field of railway infrastructure, specifying an investment list along the main railway network in the Western Balkans.

The Albanian railway Infrastructure projects are also included.

There is sought the solution to provide long-term financing and development of the Railways, by including it in Regional Transport Projects, which favour Albania thanks to its geographic position in the Balkans.

The strategic priority projects set up for the development of the Albanian rail network in the Sector Strategy and Action Plan 2016-2020 of the Albanian Government for the railway sector are:

- Railway line Durres - Tirana and Vora - Shkoder - Hani i Hotit border with Montenegro.

  This segment is part of Route 2 Podgorica (Montenegro) - Durres / Tirana (Albania, and is part of the Main Central Regional Network SEETO - S.

- Railway line Durres – Elbasan – Lin (Pogradec).

  This railway segment is part of the Corridor VIII Trans European Italy - Albania.

- FYROM – Bulgaria– Greece - Turkey.
- Albania – Kosovo Railway line.
- Railway connection between the Albanian railway network with the Greek railway.

The Government of Albania has already identified the railway development projects and included these in the Single Sector Project Pipeline (SSPP) for the transport sector.

8.4.3. Maritime Transport

Drafting of the policy, legislation and some regulatory functions remain with the Ministry. The General Maritime Directorate has taken the regulatory functions for the oversight of maritime activities by the law 10109/02/04/2009.

GMD is playing the role of the regulatory body on the implementation of the policy and the legislation of the sector. The General Master Harbour which is in power of the control of the maritime navigations activities is included in the directory while it has subordinates in all other ports of Albania. GMD is responsible for the Flag State control and the Port State Control through the respective body of inspectors

According to the last evaluation from the EU progress report, more work is needed to strengthen administrative capacity for General Maritime Directorate. "*In maritime transport, Albania should continue its efforts to follow up on its membership application to the Paris Memorandum of Understanding on port state control. Efforts to improve flag State control of vessels under Albanian flag and port state control need to continue to reduce the detention rate of Albanian ships further. Legislation on a Community vessel traffic monitoring and information system VTIMS has not yet been transposed due to lack of funding, while there are some efforts for the Long Range Identification and Tracking system LRTI. Albania ratified the Maritime Labour Convention in 2015. Albania was one of the first States to approve the 2002 Protocol to the Athens Convention relating to the Carriage of Passengers and their Luggage by Sea. Thus, the Protocol applies to Albania and all carriage of passengers by sea from or to Albanian ports, as well as on Albanian-flagged vessels, since its entry into force in 2014, as it does in all of the EU Member States*".

GMD is preparing the complete set of regulation from IMO for the approval by the Minster and the Council of ministers for the process of the port and flag state control. This procedure is expected to be completed by the end of 2019.

A two year contract is signed with EMSA on May 2018 for the training of the safety inspectors to increase their capacities for the oversight of port and flag state control.

The GMD is working for the implementation on LRIT at the Albanian vessels while the maritime monitoring system VTIMS is planned to be financed by the state budget on 2019.

The GMD is part of the Inter-institutional Maritime Operation Centre which has in its objectives between the others the search and rescue operations, life safety in the sea and the environmental maritime protection.

The Maritime Register is a private Company in charge for the ship's classification in Albania. There are only 16 vessels register in the Albanian register but still, the rate of detention is high and Albania actually is on the "grey list" of the Paris Memorandum.

Albania is part of the Motorway of the Seas, EUSAIR strategy and many other projects and Initiatives on the Adriatic Ionian and Mediterranean region.

SCTW convention was adopted in 2014 and Albania is on the "white list" regarding the standards of training, certification of the seafarers.

All the ports of Albania have been under transforming process by improving infrastructure while they kept the same organizational structure as the one described in the ANTP2.

The situation at the port sector has remained the same Durres Port Authority has a special statute DCM596/10/09/2004 and the other three ports are with the status of the "anonymous societe".

Port Authority Durres development has followed the master plan recommendations with the aim to become a landlord port. Most of the activities have been outsourced under PPP schemes following the Master Plan recommendations approved with a decision of the Council of the Ministers.

Passenger terminal – Albanian Ferry Terminal Operator

Container terminal – Durres Container Terminal

East terminal – EMS Albanian Port Operator bulk and general cargoes

Western Terminal is still under management Durres Port Authority which is being operated through the private stevedoring companies

Durres port remains the main port of Albania and the main entrance of Corridor VIII due to the volume of works while 90% of the freight is being processed through. Since the ANTP2 approval, there have been several changes that aim to improve the capacities.

- The PPP Project for the Container Terminal has also resolved the issue of the Kurum properties on the port, and today the APD owns 100% of the Port territory;
- The removal of the fishing vessels to the new Fishery Port out of Durres port territory.

There are still some problems. Due to the delay of the dredging projects, the capacities of the vessels that can enter the port has been reduced by creating premises for them to use the other ports of the region.

It remains a problem the connection of the container terminal with the rail line as the railway can only access the East terminal of Durres port.

The other three ports of Albania Shengjin, Vlora and Saranda, have the status of the "anonymous societe " where the states own 100% of shares through the Ministry of Finance and Economy while the activity falls under the Ministry of Infrastructure and Energy. They are managed each of them by the:

- Supervisory Board (members are appointed from the MIE and MFE)
- Port Director

According to the GMD for the small three ports will be better to be organized under one authority for a better coordination and performance.

Vlora is considered the second entry for Corridor VIII. The port has two piers one for the passenger vessels and the other one for freight. The construction Works for the Project of 15mln Euro for the reconstruction of the existing

quays financed from the Italian Cooperation are under implementation since 2014. Due to the restriction during the construction period, the port of Vlora has lost its second position and now is the third port for the volume of freight after the Shengjin port. Vlora has a daily connection by ferry boat with Brindisi.

The port of Shengjin has a new quay for vessels constructed with the financing of ECD completed in 2013. It is mainly used for general cargo while have been some efforts to establish a passenger ferry connection to Italy.

Saranda has a new cruiser terminal financed from the WB completed on 2014, which has made it visited from several cruiser lines last years. It has twice daily connection for passengers by boats to Kerkyra. All the freight and fishery activities have been transferred to the Limjoni Bay. Recently there is a private contract approved under long-term rent for Limjoni port in Saranda.

Besides those, there are in operation two other private petroleum ports for LPG and oil products declared as "open ports" by DCM on 2009. Vlora1 and Romano Port, are the only ports to process the LPG and oil products due to the exclusivity they had on their port concession laws.

Vlora1 is the petroleum port in Vlora. It is in operation since 2009, and it has constructed with its own funds a rail connection with the rail network;

Romano Port is the other private petroleum port for the transport of OIL and Gas. It is in operation, but there are still works on the break water construction. This port has a direct connection with the LPG and oil deposits at the zone of Porto Romano. It already has a road connection but doesn't have a railway link the rest of railway network.

From 2015 there is under construction a new PPP for a Multi Buoy Mooring (MBM) port on the south of Porto Romano (Durres).

All the ports in operation have their security force. They have to prepare their Security Plans which are approved by the GMD. The security inspectors of GMD follow the implementation and compliance with the security plan requirements.

There is only one company ASHD s.a. (Maritime Service Ships) a former state Company, that has the right of the ship towing services for all the ports of Albania on a second five year contract signed in 2017. Each of the port has various subjects for the other activities like the processing of freight, cleaning of the basin, removal of ballast water and used oil.

There are no new developments in the inland waterway transport. This transport is limited to Komani lakes while some attempts for a boat line at Ohrid lake on a common initiative of FYROM and Albania were not successful. The activity at the Komani lake is increased during last years due to the tourism expansion toward the north that is why the GMD has proposed to upgrade the terminal to a harbour.

The Investigative Body for the Maritime Accidents/Incidents is not in place while the GMD performs the investigations. The plans are to have one Investigation Body for the Accidents/Incidents for rail, maritime and air events.

8.4.4. Air Transport

This mode of transport, due to the Albanian airport situation, is limited to international connection only, that is why it has as good progress towards the service and infrastructure compliance with EC rules and standards. The airport, the navigational infrastructure, airlines have to comply with the requirements while still needed some efforts to remove the nonphysical barriers by transposing and implementing the peace of the legislation.

In the air transport, drafting of policies and legislation remains with the Ministry. The Civil Aviation Authority has taken the regulatory functions for the oversight of air activities. The Authority is managed by the:

- The Management Board;

- The Executive Director

The Executive Director ACAA has worked towards capacity building of ACAA personnel in response to the ICAO and EASA findings. On this purpose there have been two twinning projects, by two years terms, with ENAC Italy and two years with French DGCA on the safety oversight and safety management system financed from the IPA funds. Still, there is room for improvement as Albania lacks the key personnel/proffesionals to satisfy the requirements of ICAO for Safety Inspectors (ops and airworthiness).

The end of the Navigational Aviation Modernization Program in 2012 implemented from 2002 by Lockheed Martin has improved the infrastructure, the navigational superstructure, the navigational and communication aids. The new facilities of the ATC and the administration building has been completed by improving the overall capacities of the airspace mangement

Aviation has seen an increase in the passenger numbers after the stagnation on the years 2010-2013 due to the closure of several Airlines one after the other, like Albanian Airlines, Belleair or Malev. Last year there was an increase of 22.9% while it seems that the same trend will continue this year. This positive trend will lead to the need for expansion of the passenger terminal as during the summer it was noted some congestion during the peak hours.

The only airport in operation in Albania is operated from the Tirana International Airport concessionaire on a Build Own Operate Transfer contract approved by law 9312/11.11.2004 amended by law 55/2016. The concession period is extended with 2 years from the original agreement and will finish in 2027 unless new international airports can affect this agreement as foreseen in the amendment law.

National Investigation Body of Air Accidents/Incidents has been set up by the Council of Ministers Decision on 2010. It is a minimum structure that is working in building their capacities by on job training at the other well-established investigation bodies in the region. The investigation will be carried out by activating the in-house experts and by outsourcing experts from the other similar entities with which they have agreements.

Even with the fact that Albania is one of the countries with the highest increase of the passenger number in the region still the cost of the tickets is the highest in the region. The penetration of the low-cost airlines is not sufficient to reduce the cost of flights. The Ministry is trying to address these issues by taking several actions:

- On April 2016 after the negotiations with the concessionaire of the Tirana International Airport, it was agreed for the amendment of the law 55/19.5.2016. "for the ratification of the concessionaire agreement…" for the removal of the exclusivity that the airport had on the international flight. This amendment will pave the way for the development of the new international airports in Albania.
- Right after, the feasibility study for an airport in South of Albania was completed, March 2018, the Ministry started a negotiating with a private entity for a design, build, operate, maintain and manage the contract for the Southern Airport.
- There is also an unsolicited proposal for the operation of Kukes airport which is still in the bidding procedure.
- There are efforts for a new airline, Air Albania as a joint venture with Turkish Airline, Albanian state and the private investor which is expected to start operation by the end of the year. According to the Council of Minister Decision, it will be an Albanian flag carrier where 51% of the shares will remain with the Albanian partners.
- ACAA has opened the procedure for the overall evaluation of the TIA concession with an independent expert aiming at the review of the airport tariffs.

With the completion of those projects will create the premises for an open competition of the airports on the public benefit as the Albanian Competition Authority has drawn the attention to the level of the airport tariffs which leads to the highest flight cost in the region.

Civil Aviation Authority has been very active on the sensitivity of the public opinion for the Passenger Rights Protection by campaigning and distributing leaflets and posters at the airport, with the explanation of the procedures in case of delays, cancellation and denied boarding

There are also efforts to address the possible future congestion at the existing airport by implementing the Slot coordination regulation. There is an expectation from CAA, to have double figures in terms of number of passengers by 2025 and triple figures by 2030. With the increase of passengers in the Tirana International Airport it could bring a risk of airport congestion. The problem will not be so urgent if the Airports in the North and the South will be in operation on time, but if there is any delay, the situation could be critical.

The new changes to the Air Code have been presented to the Parliament. The process has been delayed due to the new EASA (European Aviation Safety Agency) basic regulation coming to force. Still need to be addressed issues like, the drones registration, the ground handling rules etc.

The ACAA doesn't need additional resources, a development plan would be necessary, which should be translated into a budget exceeding 1 year. A midterm plan would also be a good approach.

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