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

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Final ANTP3 - PART I. EXECUTIVE SUMMARY



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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 Ndregës 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 SIGi 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 Inteligiente 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)
- Mol 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)



Final ANTP3 – Part I



1. INTRODUCTION

1.1. GENERAL OBJECTIVE

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

This report presents the work related to the configuration of the Albanian National Transport Plan which is intended to comprise the Transport Plans for each Sub-sector for 20 years period of time, and an overall 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
- Transport Model definition
- Passenger traffic analysis
- Freight traffic analysis
- Legal framework
- Institutional setting
- Synthetic analysis of the conclusions and recommendations of the previous update of the plan
- Transport Sector Needs Assessment
- Prioritization of development of transport infrastructure
- Sub-sector Plans
- Investment and Action Plans in rolling programs of capital investments
- Indicators which are already detailed and linked with outcomes and outputs
- Indicators which are just proposed as a title for consideration in the future as potential indicators
- Methodology for measurement of indicators

1.2. THE STUDY

The European Delegation to Albania (Contracting Authority) selected TÉCNICA Y PROYECTOS, S.A. (TYPSA) to develop the "Second Five Years Review of the Albanian National Transport Plan (ANTP3)". The contract started on the 15th of January of 2018, the Inception Report was submitted on the 26th of February of 2018 and the First Interim Report on the 15th of August of 2018. The Contract will finish on the 15th of January of 2019.

This document constitutes the Draft Final version of the Report, to be approved by Council of Ministers.

1.3. THE REPORT

The ANTP3 is an update of the previous versions. According to that purpose, the report keeps the same structure that the previous versions of the Plan:

- PART I: Summary of the ANTP3
- PART II: Setting for the update of the ANTP3
- PART III: Update of the Sub-sector Plans, Investment and Action Plan



Final ANTP3 - Part I



2. SOCIO-ECONOMIC SITUATION IN ALBANIA

2.1. TERRITORIAL AND ADMINISTRATIVE REFORM

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 centers, 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.

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.

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.

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

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.

According to INSTAT reports, 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.

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.



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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.

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.

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.

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%).

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.

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.

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.

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 a greater increase in exports in the last year.

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 26.3 % of total exports.

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

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.

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



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standards of 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.

The number and distribution of road accidents and casualties has experienced a heterogeneous development over the years. In recent years, Albania has experienced a migratory flow towards large urban centres, such as Tirana or Durres, as seen below. 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. However, 2017 shows a clear decrease in the number of accidents in Tirana. And the number of persons killed in road accidents has strongly decreased from 2012 to 2017.

2.3. FREIGHT AND COMMODITIES

The socioeconomic analysis also includes a description of the freight traffic in Albania, and also 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.

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.

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.

3. TRAFFIC SURVEY CAMPAIGN

3.1. 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.

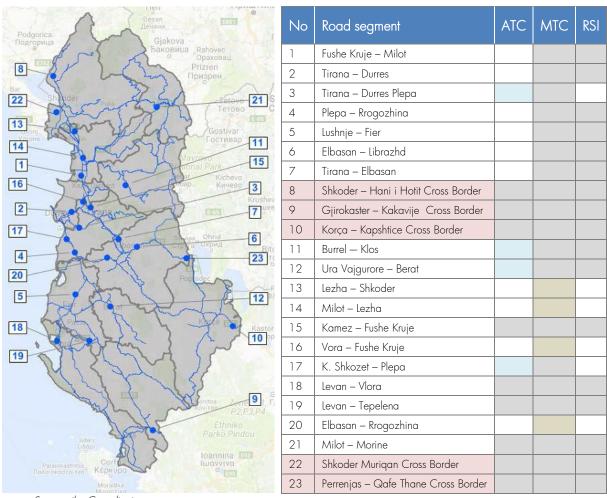


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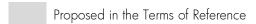


The location of the points is shown in the following figure:

Table I - 1. Traffic Survey Campaign



Source: the Consultant



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

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



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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.

3.3. 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.

3.4. SURVEY 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 I - 2. 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.



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Table I - 3. 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	ource: the Consultant	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.



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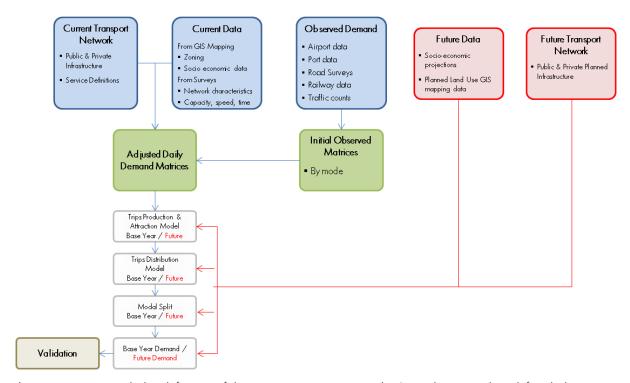


4. TRANSPORT MODEL

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 1 - 1. 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 observed and finally assignment models.

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 will also be 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
- 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.



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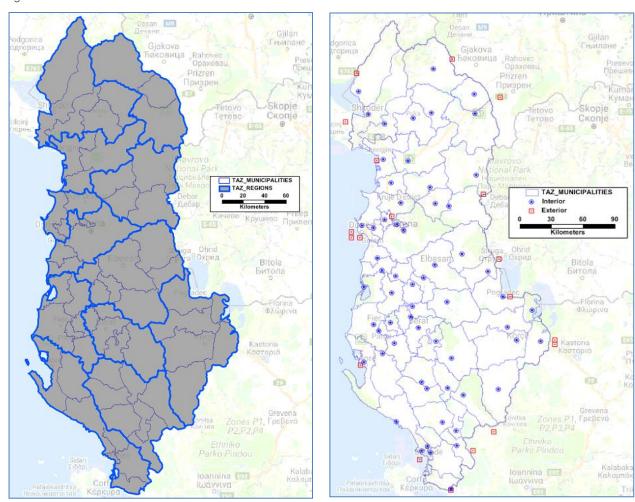
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- Calibration process to adjust the traffic flows initially obtained to the collected data in the survey campaign, through their traffic counts (automatic and manual) and RSI (road side interviews).
- Once the model is set, analyze the main shortcomings of the network and the impact of proposed improvements to the transport infrastructure.
- Estimate future traffic flows and its potential problems derived on the networks, based on forecasted transport demand.

4.2. MODELLING METHODOLOGY

Transport Analysis Zones (TAZ) are geographic areas that divide the planning region 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.

Figure 1 - 2. TransCAD model - TAZ and centroids



The modelling of the transport network or building graphs 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.



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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 characteristics improved of the existing.

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).

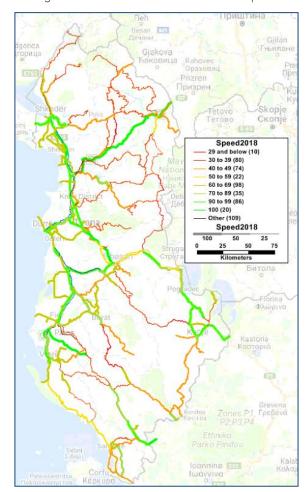


Figure I - 3. TransCAD road classification-speed

5. PASSENGER TRAFFIC ANALYSIS. MODELLING AND FORECASTS

5.1. GENERAL METHODOLOGY

Based on the surveys undertaken in the main roads a OD trips matrix for passengers has been built. The process to obtain the demand matrix in passenger starts building the origin destination matrix at each point surveyed. Once each matrix has been obtained and expanded, the final matrix is obtained by comparing the different matrices in order to homogenizing the relations observed, avoiding to overestimate of the number of trips in each relationship.



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Then, the 4 stages model is applied (generation and attraction, distribution, modal split and assignment) to obtain model results that were calibrated with the observed traffic.

5.2. TRANSPORT PERFORMANCE. BASE YEAR SCENARIO

The results obtained, and the comparison with previous results, are shown in the following table.

Table I - 4. Total number of passengers and general performances in the Base year 2018. Comparison with the previous versions of 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 ANTP3 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 increasing 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 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. In the other way, 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 the occupancy also. The following table shows a summary of the results obtained.

Table I - 5. Total number of passengers and number of vehicles by type in the Base year 2018. Comparison with the versions of the Plan

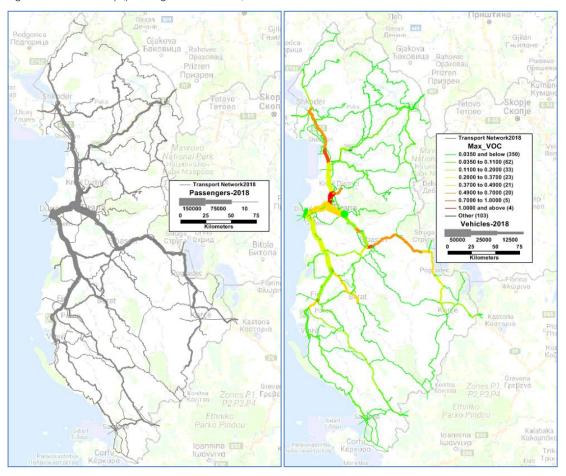
	2010 ANTP 1		Base year 2018 ANTP 3	
Type of vehicle	Number of vehicles	Number of passengers	Number of vehicles	Number of passengers
Passenger Car	39,862	95,669	90,837	190,843
Mini bus	7,598	56,989	2,352	49,329
Bus	2,324	57,412	1,738	67,254
Total passengers	49,784	210,070	94,927	307,426



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Figure I - 4. 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.



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5.3. 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 I - 6. Total number of passengers and general performances in the base year and 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.

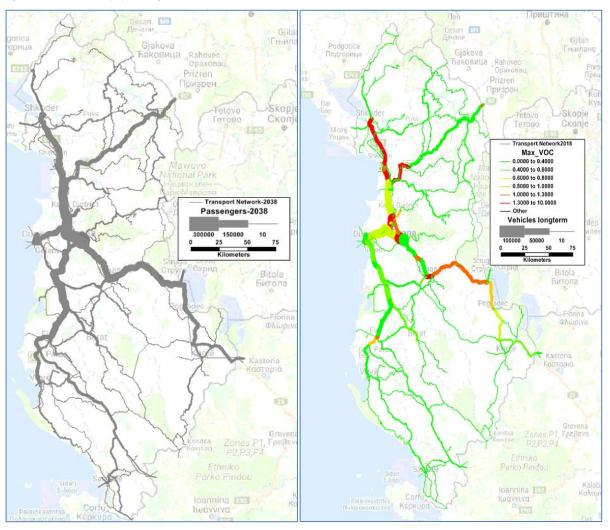
Table I - 7. Total number of passengers and number of vehicles by type in the year 2038.

	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	158,765
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.

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Figure I - 5. Total daily (passenger and vehicles) flow in the Year 2038.





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6. FREIGHT TRAFFIC ANALYSIS. MODELLING AND FORECASTS

6.1. GENERAL 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 I - 8. 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	

All the data received was considered as raw materials and processed by the Consultant to be included in the model. After analyzing the raw data, we obtained the volume of tons as productions by group and zone.

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 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.

6.2. 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.



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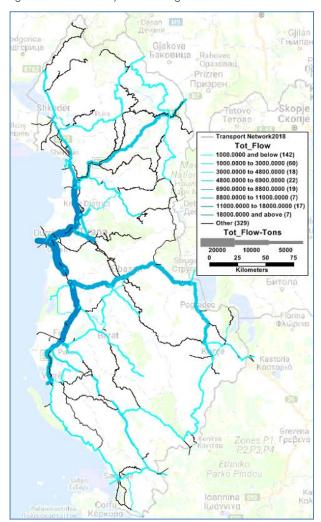


Table 1 - 9. Total number of tons. transported and general performances in the Base year 2018. Comparison with the previous versions of the Plan

	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.

Figure I - 6. Total daily tons of freight flow in the Base Year 2018.



6.3. 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.



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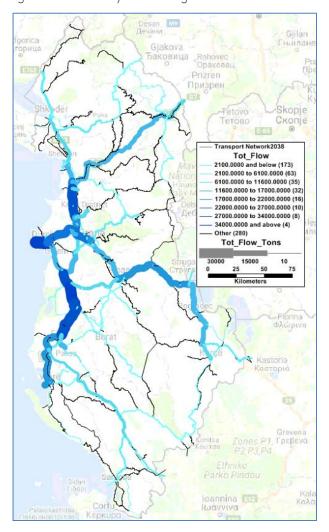
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Table I - 10. Total number of tons, transported and general performances in the base year and in the year 2038

	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 1 - 7. Total daily tons. of freight flow in the Year 2038





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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.

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 annexes, will show the roadmap that Albania has to follow to become part of the EU

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



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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 Accident/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.

The Legal Action Plan proposed on the ANTP2 remains valid 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.

8. INSTITUTIONAL FRAMEWORK

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.

9. REVIEW OF ANTP2 AND NATIONAL TRANSPORT STRATEGY

9.1. ANTP2

The First Five Year Review of the Albanian National Transport Plan (ANTP2) was released in 2010 as the first revision of the original Albanian National Transport Plan of 2005 (ANTP1). While ANTP was mainly focused on building an institutional and legislative base on which developing infrastructure plans and promote the private sector as key participant, the ANTP2 was addressed to materialise this primary implementation in the context of a future EU integration through investment program combined for all modes of transport over a 20 year time horizon.

Thereby five sub-sector plans (road, rail, maritime, aviation, logistics & intermodality) were undertaken based on the analyses of the existing situation, planning needs and the financing situation and possibilities in the context of



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the national budget and IFIs funds. Each sub-sector is appraised based on its management structure (describing the governing bodies, legal framework and its organizational structure); a description of its infrastructure assets; traffic forecasts and an analysis of the investment needs and complementary programmes, finalizing with a Sub-Sector investment plan.

These, investment plans were propped up on an Action Plan including various institutional, legal and regulatory changes. In particular, the Action Plan is made up by a total of 42 complementary proposals, whilst the Investment Plan estimates the allocation of investment funds between 2010 and 2015 and in the period 2016-2030.

9.2. THE NATIONAL TRANSPORT STRATEGY 2016-2020

The National Transport Strategy and Action Plan 2016-2020 was approved with DCM 811 dt 16.11. 2016 and constitutes the most important transport policy in recent years since continues the previous national programmes, is aligned with EU objectives and priorities, and is based on a comprehensive and detailed situation of the Albanian transport sector, considering infrastructure networks, regulations and financing instruments. For these reasons, it shall be considered as the key link between the previous ANTP2 and the current ANTP3. Besides, the Transport Strategy 2016-2020 is aligned with the National Strategy for Development and Integration 2015-2020 (NSDI) which takes into consideration the Single Sector Project Pipeline (SSPP) for Transport that has already been prioritised by the Government of Albania (GoA) and other cross-cutting strategies promoted by the GoA in the fields of Business, Trade, Tourism, Environment, Energy and Social Inclusion.

After a deep assessment of the current conditions of the Albanian transport sector, the Transport Strategy establishes a set of vision, strategic priorities and goals to be finally materialised through an action plan with 43 priority actions. They are characterized by means of key performance indicators, budget estimation, calendar, sources of financing, relevant stakeholders, etc. In the following section, sectorial plans will be reviewed.

Although this ANTP3 document is a direct update of ANTP2, the strategic priorities defined in the Transport Strategy of 2016-2020 have been addressed and constitute the starting point for the development of the Priority actions for the next 20-year planning period.



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10. SUBSECTOR PLANS

10.1. ROAD TRANSPORT

Road transport represents the predominant mode of land transportation for passengers and freight in Albania. During the last decade it has been receiving the bulk of the transport infrastructure investments, but there is still room for improvement, particularly in terms of services provided and enforcement of the new legislation put in force. Lately, a Road Tolling Strategy has been adopted in the context of an ongoing reform regarding the national road infrastructure work plan.

In the Institutional level, the subsector is managed by the following institutions:

- The Ministry for Transport and Infrastructure (no replaced by the Ministry of Infrastructure and Energy)
- The Albanian Road Authority
- The General Directorate of Road Transport Services

To date of 2016, according to figures included in the NTS, the National Road Network estimated by the Albanian Road Authority (ARA) is 3,950 km of national roads (primary and secondary network). Of which, all primary roads leading network and about two thirds of the total length of the secondary network are paved roads. The national road network under the jurisdiction of ARA also includes a total of 590 bridges (with an overall length over 10 m). This network carries the majority of the country's traffic, averaging 6,695 vehicles per day for the Primary and Primary-secondary roads and 1,705 vehicles per day in the rest.

The majority of the transport investments made have been directed at road infrastructure and tied to the Indicative Extension of the TEN-T Comprehensive Network to the Western Balkans.

Key Challenges for Road transport

- 1. Complete the construction of the national road network, including strategic arteries;
- 2. Complete the feasibility study for the Adriatic-Ionian Highway North-South (to facilitate the commencement of works on particular segments), including the full completion of the corridor Milot-Morine, Arbri Road as a branch of Corridor VIII, etc.;
- 3. Harmonise the national legislation with the EU acquis for road transport of goods and passengers;
- 4. Reform the intercity passenger road transport network;
- 5. Maintain Albania's road transport infrastructure according to EU standards; and
- 6. Observe technical standards including the need to increase road safety.

10.2. RAILWAY TRANSPORT

During the last decade, rail traffic has been in a constant decline. Most of the tracks are operative but near to limit condition. It must be further noted that train speeds are very low and the service is poor and irregular. Also, It is worth to mention that rolling stocks (wagons, passenger coaches and locomotives) are old and in need of renewal. In addition, signalling is almost completely life expired and many of the components were damaged throughout the years.

In the Institutional level, the subsector is managed by the following institutions:

- The Ministry for Transport and Infrastructure (now replaced by the Ministry of Infrastructure and Energy)
- The Rail Inspection Directorate
- Albanian Railways S.A. (HSH)



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The Albanian rail network was supports Albanian Railways (HSH) to carry out services for goods and passengers transport through a network of 360 km of single track railway line. According to the 2014 annual update of the ANTP2 the traffic downtrend is reflected in declining volumes in rail traffic for both freight and passengers, reaching 0.187 million passengers and 39.89 million tonnes.

After a long period of no investment and maintenance work, most of the tracks are operative but near to limit condition.

Albanian Railways (HSH) has undertaken an investment programme over an 8 to 10 year period to ensure full interoperability with the European network and raise general operative standards.

Key challenges for Rail transport

- 1. Reform the rail system to set up an open market for different investors whether in terms of infrastructure management or rail operations;
- 2. Strengthen capacities at all levels, thus enabling the administration to effectively respond to interoperating (among various infrastructure managers and railway undertakings) and interactive (completion of technical standards) requests at the European level; and
- 3. Create favourable legal and institutional conditions for attracting foreign investment.
- 4. Create a level playing field with other modes of transport.

10.3. MARITIME TRANSPORT

As part of its assessment and strategic priorities for the transport sector in Albania, the NPEI 2018-2020 approved by DCM 246 dated 09.05.2018 has outlined key challenges and objectives of the maritime sector. Particularly, important EU programs like EUSAIR (European Union Strategy for de Adriatic – Ionian Region) establish important opportunities to be addressed in the light of the blue-economy.

In the Institutional level, the subsector is managed by the following institutions:

- The Ministry of Infrastructure and Energy)
- General Maritime Directorate
- Port Authorities
- The Maritime Register

Albania benefits form a coastal line of 440 km and lies in a strategic position in the Adriatic and Ionian Seas.

The NTS 2016-2020 highlights that Albania needs to improve significantly in terms of maritime connectivity, being disconnected from major international networks

To deal with this situation, over the 2006-2016 period the Government of Albania (GoA) did introduce several initiatives aimed to reform institutional and regulatory policies, set up decentralized structures, and improve customer service, safety, asset quality and commercial performance.

As regards the seaport sector, Albania has four main port authorities: Durres, Vlora, Shengjin and Saranda and two oil private terminal facilities in Porto Romano (Durres) and Vlora Bay (Vlora). All of them have undertaken different investments and further actions were included in the NTS.

Regarding "soft" measures, a major issue of policy and regulatory intervention in shipping and ports identified in the Strategy document is the issue of maritime and port safety, security, labour regulation, and environmental sustainability.

The main findings regarding policy implications and challenges include:



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- Many of the strategies put forward in the previous National Transport Strategy are broadly generic and rarely provide quantified targets and clear measures for implementation and review.
- At the level of regulatory compliance, Albania is yet to fully ratify and approximate EU maritime legislation
- At the level of institutional and regulatory performance, there is a need to re-focus the maritime strategy on priority sectors in the light of the alignment with international regulations, increased competition, and the need for market opening
- The reform of the port sector started in Durres should be extended to other ports in the country, thus
 increasing the role and scope of private sector participation (PPP) in the sector.
- A major missing component of the institutional and functional framework of the Albanian maritime system is the Vessel Traffic Monitoring and Information System (VTMIS)

The NTS 2016-2020 suggests setting up a VTMIS development strategy and Upgrading of Ports' Infrastructure for enhancement of maritime safety and security and protection of marine environment.

Key Challenges for Maritime Transport

- 1. The modernisation of port infrastructure through investment;
- 2. The strengthening of the Maritime Administration in accordance with EU standards;
- 3. A greater specialisation of port functions with a view to increasing their intermodality, notably for portrail connectivity; and
- 4. Better port processing skills combined with an orientation towards an intermodal system.

10.4. AIR TRANSPORT

Important steps have been taken following the guidelines on European Trade Liberalisation and the adoption of the required safety standards of the European Community Regulation and Directives. The driving force behind these changes is the South East Europe 2020 Strategy (SEE 2020) which further builds on the Single European Sky (SES) and the Joint Service Provision Area (JSPA) Initiative, which is in direction of creating proactive relationships between regional Civil Aviation Agencies (CAAs) and Air Navigation Service Providers (ANSPs) and in line with the European key performance areas: Safety, Capacity, Environment, and Cost-efficiency.

In the Institutional level, the subsector is managed by the following institutions:

- Ministry of Infrastructure and Energy
- Albanian Civil Aviation Authority
- National Investigation Body of Air Accidents and Incidents

At operational level, the entities involved are the following:

- Air Navigation Service Providers (Albcontrol)
- Airport Management Bodies
- Air Operators

The airport network of Albania consists of:

Tirana International Airport (TIA), known as "Mother Teresa Airport", part of the TEN-T Core Network Airports. 17 km away from the city of Tirana and well connected by a new motorway. It is operated through a concessional regime. Around 16 foreign airlines and 1 Albanian airline have regular scheduled services to/from Tirana. In the meantime, another Albanian carrier is under licensing process.



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- Kukes Airport. Situated in the north east of the country close to the Kosovo border, was completed in 2007 and can only accommodate smaller aircrafts. Council of Minister's decision 429/11.07.2018 has been approved for an unsolicited proposal in this regard.
- Other minor airfields: SEETO MAP 2018 (Cost benefit Study for enhancing the air transport connectivity in South East Europe). These routes serve neighbouring hub airports as feeders while regional main airports, which could be compared to European hubs, have been established; however regional connectivity remains poor.

Key Challenges for Air Transport

- 1. The development and construction of new airport infrastructure in the South of the country;
- 2. The creation of a more competitive market with liberalized air services;
- 3. The implementation and unification of international standards for air safety; and
- 4. A reduction in travel fees for passengers

10.5. LOGISTICS AND INTERMODAL TRANSPORT

To improve significantly in the combination and integration of the transport modes, has been identified as one of the main challenges for the whole Western Balkan countries. Since its adoption in 2010, the ANTP2 highlighted that due to increased traffic flows both within and through Albania, in particular on roads, Albania shall start introducing some actions to support environmentally-friendly modes, such as rail or combined transport.

In the Institutional level, the subsector is managed by the following institutions:

- Ministry of Infrastructure and Energy
- Albanian Institute of Transport (IoT)
- Ministry of Finance and Economy (MFE)
- Ministry of Education and Sport (for vocational and professional training)
- The Ministry of Tourism and Environment.

The NTS addresses the Logistics Performance Index¹ On a regional context, for the period available (2007-2012), to ascertain the performance level of Albania in contrast with the region and the global players. It concludes that the gap compared to the Western Balkans leader has been decreasing. Initiatives like the REBIS update listed 18 priority actions to alleviate non-physical barriers in customs and transport policy. 17 of these measures are applicable in Albania and 8 of them deal with intermodal and combined transport (including customs and border crossing barriers).

Regarding the NTS recommendations, the main conclusion to be withdrawn is that Albania should concentrate in developing a multimodal logistics centre around the Port of Durres. Furthermore, the Flagship Axes initiative promoted by SEETO in 2013 selected the Corridor VIII + Route 7 (running through Albania) as one of the priority points to improve. It was structured in two phases aiming at the following topics:

- Phase 1:
 - Infrastructure, identifying the causes for limitation of the transport along the axis on this side.
- Phase 2:

-

¹ The Logistics Performance Index (LPI) evaluates the performance of a wide range of countries in six key dimensions: Efficiency, Quality of trade and transport related infrastructure; Ease of arranging competitively priced shipments; Competence and quality of logistics services (e.g., transport operators, customs brokers); Ability to track and trace consignments; Timeliness of shipments in reaching destination within the scheduled or expected delivery time.





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- Market access, focusing on the customer needs and multimodal competitive analysis;
- Performance, elaborating the quality, competitiveness and consistency of services;
- Border crossing, elaborating legal, technical and organisational backgrounds for the time delays.

Key Challenges for Intermodal and Combined Transport

- 1. Make significant progress in meeting UNECE's national policy measures to promote intermodal and combined transport;
- 2. Link Albanian ports with those of neighbouring countries. This goal is closely related with several actions on infrastructure already mentioned in this document and in line with Albania's SSPP for Transport, but also deals with logistics development.
- 3. Implement the 8 priority measures proposed by REBIS updating study to address non-physical barriers and dealing with customs, border crossing and intermodal and combined transport. This goal is also closely related with several actions on infrastructure already mentioned.



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11. INVESTMENT PLAN

As a consequence of the Sub-Sector Plans, the Investment Plan has been prepared. The Investment Plan includes the projects considered necessary to accommodate transport volumes in the next 20 years, based on the following traffic evolution.

11.1. TRAFFIC EVOLUTION - PASSENGER VEHICLES

The following figures show the evolution between 2018 and 2038 of the national network, in terms of vehicles in private transport, as the capacity of the links (roads) is defined in these units. These maps will serve as an introduction for understanding the current and future situation of the network, despite explaining each case in depth subsequently.

The subsequent maps compare the number of vehicles calculated for the 3 scenarios assigned in the different networks, including further enhancements on each step so a logical evolution of the bottlenecks and its solutions is shown. The scenarios included are:

Scenario Network used Flows assigned 2018 2018 2 2018 Long term 3 Midterm Midterm 4 Midterm Long term 5 Long term Long term

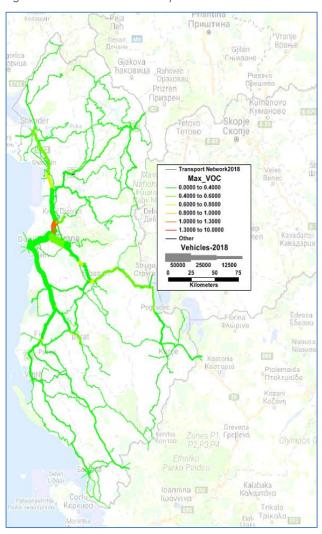
Table I - 11. Modelling scenarios definition

11.1.1. Scenario 1

This map shows the current situation of the Albanian network in terms of passenger vehicles. As analyzed before, the main problems occur in the Tirana-Durres zone, along with the northern segment of the Adriatic-Ionian Corridor. All these bottlenecks are considered in the investment plan, with new constructions and rehabilitation of existing roads.



Figure 1 - 8. Scenario 1-Total daily vehicles

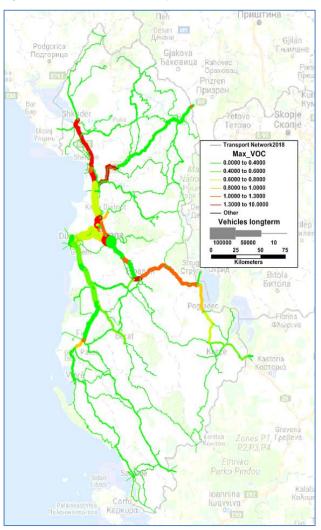


11.1.2. Scenario 2

This map shows the potential situation of the Albanian road in 2038 if no further investments are done. This is not a real projection, since many projects are already under construction or planned, but it helps to identify future bottlenecks; therefore solutions are studied and proposed prior to problems arising.



Figure 1 - 9. Scenario 2-Total daily vehicles



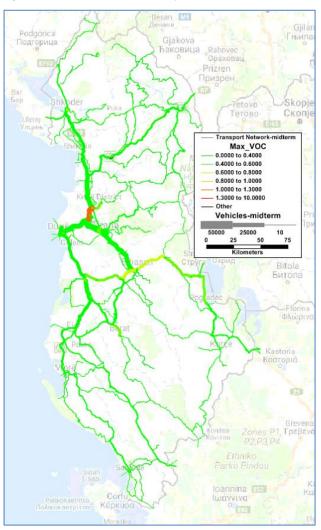
As expected, the network would collapse. Besides, new problems can be identified compared to the actual situation, as the connections with Kosovo, FYROM and Greece. These potential problems have been taken into account when designing the investment plan.

11.1.3. Scenario 3

This map shows the midterm situation, where some problems have already been solved by the projects already under construction in the Country, specially the northern segment of the Adriatic-Ionian Highway. At the same time, the future bottlenecks are starting to appear (for example, Elbasan-Pogradec segment), so it is an interesting halfway point where the prioritization of the investments can be established.



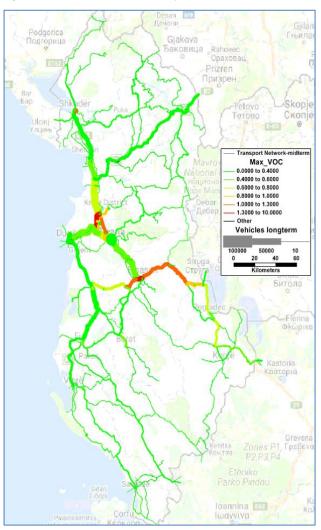
Figure I - 10. Scenario 3-Total daily vehicles



11.1.4. Scenario 4

This map shows the midterm network with the projected long term (2038) traffic. This map helps to understand the situation that might occur if no further investments are done, apart from the ones already projected or under construction

Figure 1 - 11. Scenario 4-Total daily vehicles



It can be seen how the Elbasan-Pogradec segment, previously improved in the midterm situation, would collapse again if no further investments are considered. Also, the Pogradec-Korça-Greece segment starts to emerge as one of the most problematic corridors. Another bottleneck is the northern segment of Adriatic-Ionian Highway near Tirana.

11.1.5. Scenario 5

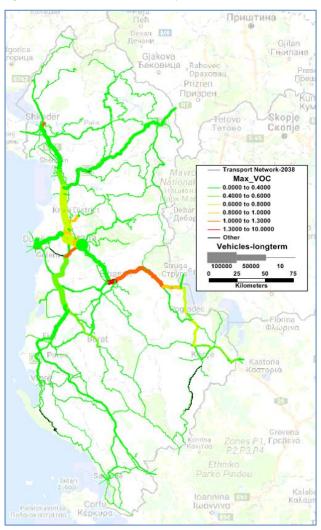
This map shows the long term situation, with all the investments included. Some comments have to be done about the Elbasan-Pogradec segment. The future rail connection with FYROM and Greece will allow to change the modal split distribution, so the public transport will be enhanced. This fact will generate better level of services in this road, which are not included in this map as there are not data available of future rail services and ticket fares of this future rail connection, so the future modal split has not been estimated. The congestion problems near Tirana have also been mitigated, due to the opening of the road Tirana-Rrogozhina.

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Figure I - 12. Scenario 5-Total daily vehicles



11.2. TRAFFIC EVOLUTION - FREIGHT

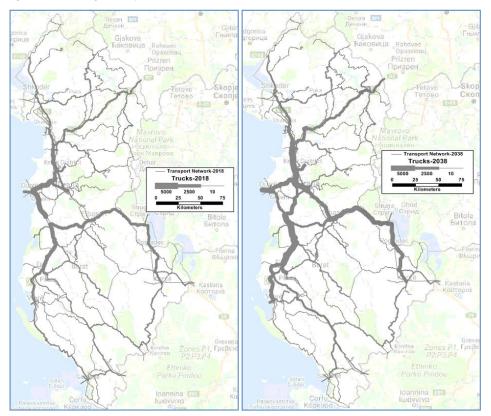
The next maps show the evolution forecasted for the freight indicators, trucks and tons. In the next figure it can be seen how the international trade relations of the Country are expected to significantly grow with Kosovo, FYROM and Greece. Also, the Ports of Durres and Vlora experience a notable growth, which shall be taken into account in the maritime investments proposed.



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Figure I - 13. Freight transport - trucks - Years 2008 and 2018



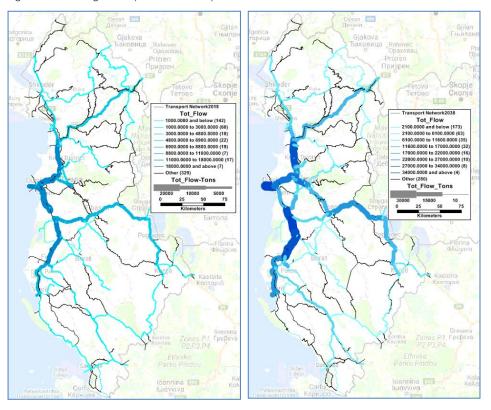
The introduction of the long term roads changes the main corridor away from Durres, assigning more flows through the new Adriatic-Ionian Corridor.



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Figure I - 14. Freight transport - Total Daily Tons - Years 2018 and 2038



11.3. SUMMARY OF INVESTMENT PLAN

As a result of this extensive analysis of the surveys carried and results of the transport model, the following Investment Plan is proposed.

The information shown in the table below is their budget, the tentative time frame for the implementation, the level of prioritisation (high, medium or low), possible sources of funding, stakeholders involved (stakeholders in charge of implementing the projects) and inter-dependence with other programmes or general comments.





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
road transport									
The Adriatic – Ionian Highway (Route 2b/Corridor VIII, Route 2c)									
■ Thumana – Kashar / Vora road (Construction 20.4 km)	225	2019-2022	High (92 points in WBIF Scoring Criteria)	РРР	90	135		MIE/ARA	SEETO, WBIF, NSPP
■ Tepelena bypass (3.5 km)	19	2018-2020	High (84 points in WBIF Scoring Criteria)	Medium Term Budget Programme	19			ARA	SEETO, WBIF, NSPP
 Construction of the Lezha - Murigan Road 	208	Medium term	High	IFI		208		MIE/ARA	
 Milot - Balldren (doubling) road including Lezha bypass road 	140	2019-2021	Medium (Lezha by pass 78 points in WBIF Scoring Criteria)	РРР	56	84		MIE/ARA	seeto, wbif, Nspp
 Tirana bypass (Construction 22 km) 	133	Detailed Design 2018-2019	High (92 points in WBIF Scoring Criteria)	WBIF		133		MIE/ARA	seeto, wbif, Nspp





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
• Gjirokaster bypass (8.7 km)	6.8	2019	High	State budget	6.8			MIE/ARA	NSPP
 Fier bypass 	37	2018-2019	Very High	EBRD/EIB	37			ARA	NSPP
SEETO Route 7 Nis – Pristina – Durres									
Rreshen – Milot upgrade (doubling)	64	Medium term	High (84 points in WBIF Scoring Criteria)	IFI/PPP		64		MIE/ARA	WBIF, NSPP
 Bridge and tunnel in the Morine – Kukes segment 	15	2018-2021	High	РРР	15			MIE	SEETO, NSPP
Corridor VIII Tirana-Elbasan									
 Completion of Tirana Elbasan Road 	50	2019	Under construction	IDB, Abu Dhabi Fund, OPEC	50			MIE, ARA	NSPP
 Construction of Kukes Qafe Plloce Road Lot 1-3 	80	2019	Under construction	IDB, Saudi DF	80			MIE, ARA	NSPP
 Elbasan bypass 	50	Detailed Design 2019-2020	High	Italian Cooperation for Development		50		ARA	NSPP
 Upgrade of Korça – Kapeshtice 	50	Medium term	Medium	State budget		50		ARA	NSPP





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
 Upgrade of Elbasan – Qafe- Thane 	250	Long term	Medium	State budget			250	ARA	NSPP
Albanian National Road Network									
 Vlora Bypass Road 	36	2019-2021	High	BEI, EBRD, EU	36			ARA	NSPP
 Reconstruction of the Vlora River Road 	110	2017-2021	High (94 points in WBIF Scoring Criteria)	Medium Term Budget Programme + SFD	60	50		ADF	WBIF
 Construction of the Arbri Road 	271	2018-2023	High (92 points in WBIF Scoring Criteria)	PPP	108.4	162.6		MIE/ARA	WBIF, NSPP
 Construction of Kardhiq - Delvine (Saranda) Road 	74	2018-2021	High	Medium Term Budget Programme	74			ARA	NSPP
 Reconstruction of Tirana-Durres road on the direction Tirana- Ndroq-Plepa 	17	2019-2020	High	PPP	17			MIE/ARA	NSPP
 Completion of Tirana Outer Ring Road (Northern section) 	200	2019-2023	High	State budget	20	80	100	MIE/ARA	NSPP
 Permet-Skrapar 	130	Medium	Medium	State budget		130		MIE/ARA	





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
		term							
 Korça Erseke Lot 2 	18	Short term	High	State budget	18			MIE/ARA	NSPP
 Kashar-Rrogozhina motorway 	215	TBD		Toll road				MIE	NSPP
 Widening Tirana Durres Highway 	170	2019-2021	Very high	Toll road				MIE	NSPP
 Orikum-Llogara 	43	2019-2021	High	PPP	43			MIE	NSPP
 Vlora-Saranda road connection 	200	Long term	Low	State budget			200	MIE, ARA	NSPP
 Tirana-Fushe-Kruje Road 	80	Long term	Low	State budget			80	MIE, ARA	
Maintenance									
 Annual Investment for road maintenance (Primary and Secondary Roads) 	100	2017-2022	Very high	WB, GoA	100			ARA	NSPP
URBAN TRANSPORT									
 New Bus terminal in North West entrance of Tirana 	18	Short term	High	State budget and Municipality budget	18			MIE, Tirana Municipality	
 New tramway in Tirana 	30.112	Long term	High	EBRD and State budget	0.112		30	MIE, Tirana Municipality	Concept project for the PTT - Train Station Tirana. Law





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
									N 3/2018 dt. 25.01.2018
RAIL TRANSPORT									
On the extended TEN-T Comprehensive network									
 Construction of the new railway Pogradec- Korça – border to Greece (CBC Railways) 	151.35	2018-2029	High (96 points in WBIF Scoring Criteria)	Interreg, IPA and EIB	0.350	75.5	75.5	MIE, AR	WBIF, NSPP
 Rehabilitation of the railway Durres-Pogradec-Lin and construction of new railway link to the Macedonian border (CORRIDOR VIII) (the existing 151 km Durres-Elbasan-Pogradec and a new 2.8 km Lin-border with FYR Macedonia) Comprehensive Network Rail CORRIDOR VIII 	206.72	Technical Assistance: 04/2017- 11/2018 Estimated Investment Q1 2020- Q3 2021	High (98 points in WBIF Scoring Criteria)	WBIF and EIB	0.720	52	154	MIE, AR	SEETO, WBIF , NSPP
On the extended TEN-T Core network									
Rehabilitation of the railway Durres- Tirana Public transport terminal PTT (34.1km) and construction of the new railway Tirana-Rinas branch,	90.45	2018- Q2 2021	High (98 points in WBIF Scoring Criteria)	WBIF, EBRD	90.45			MIE, AR	SEETO, WBIF NSPP





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
approximately 5 km and its interchange, including signalling and telecommunication systems, and new train station (CORRIDOR VIII)									
• Rehabilitation of the railway Durres - Vora - Shkoder - Hani Hotit, border with Montenegro Section (140 km), within the railway corridor (Mediterranean Corridor Rail R2 ROUTE 2)	169.5	2018-2022	High (98 points in WBIF Scoring Criteria)	WBIF, EBRD	4.5	165		MIE, AR	SEETO, WBIF, NSPP
Other railway projects									
 Connection Milot-Kukes-Kosovo border 	750	Long term	low	Mixed (State budget, IFIs, etc.)			750	MIE, AR	A future connection incl. IPF6 in the Project WB16-ALB- TRA-01
Other investments									
 Railway maintenance 	55	Short term	High	IFI and National budget	55			MIE, AR	FS Connecta/EC and PBA (MTBP) NTS rail priority #7
 Investments in rolling stock. Replacement of the current units with DMUs – Diesel Mobility Units for passenger transport 	9	Short term	High	IFI and National budget	9			MIE, AR	FS on modernization of AR Locos under MoU ACRI and MIE





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
 Railway electrification 	100	Long term	High	WBIF, IFI and National budget			100	MIE, AR	Interconnectivity in DCM 504, dated 13.9.2017 on determination the State responsibility area of MIE, energy, transport, waste, innovation, urban development, and telecommunication
MARITIME TRANSPORT									
 Construction of Marina in near the Port of Durres 	13.5	Short term	High	Toll project				MIE, Durres Port Authority, GMD	NSPP
 Reconstruction of the Quays N° 1 and N°2 at Port of Durres 	50	2020-2022	High	EBRD	50			MIE, PDA	NSPP
 Dredging of the Port of Durres 	8	2019	Very high	GoA	8			PDA	
 Upgrading the commercial port of Vlora (rehabilitation of port infrastructure and superstructure) 	15.3	2019	High	Italian Cooperation for Development	15.3			MIE	NSPP
 Expansion of Passenger Terminal at Vlora Port 	2.1	Short term	High	State budget	2.1			MIE	





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
Coordinated Master Plan for Ports	1.5	Short term	High	State budget	1.5			MIE, GMD	
AIR TRANSPORT									
 New Southern airport (PPP) 	107	2020-2022	Medium	PPP, GoA		107		MIE, ACAA	NSPP
 Expansion of the Tirana Airport beyond 2025 	TBD	TBD	low	TIA				MIE, ACAA	
 Kukes airport upgrading and operation 	8	2020-2022	Medium	Toll project				MIE, ACAA	NSPP
 Airport Master Plan for Albania to consider helipads drones and general aviation taking account of traffic forecast considering economic and tourism development 	1	2019-2020	High	IPA	1			MIE, ACAA	NTS
INTERMODAL AND COMBINED TRANS	SPORT								
 Multimodal logistics centre around the Port of Durres. 	5	Short term	High	Toll project				MIE, AR, PDA	NSPP
 Rail connection with the Port of Durres (container terminal) 	1.5	2019	High	National budget		1.5		MIE, AR, PDA	NTS action plan Intermodal priority action #3
 Rail connection with Porto Romano (Fuel transport) and to 	15	Medium term	High	PPP		15		MIE, AR, GMD	WB Intermodal Connectivity in the





Type of investment	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Short Term	Medium Term	Long Term	Stakeholders involved	Inter-dependence / Comments
the Energy and Industrial Park adjacent to it.									WB6 Project 06/2018- 06/2019
 Logistic centres (Elbasan, Milot, Durres, Vora, Prrenjas, Kukes, Fier) 	18	Medium term	High	Toll projects				MIE	NTS intermodal priority #2 and FS loT on logistic centres reached by rail-road terminals and sea and air and combined transport



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As a result of the Investment Plan, the total budget foreseen for 20 years period (2019-2038) is 4,888.03 M Euro. 4,458.53 M Euro corresponds to Public projects, while 429.5 are private projects (toll projects).

The investment according to the time frame is as follows:

- Short Term (2019-2023): 1,086.23 M Euro
- Medium Term (2024-2028): 1,562.6 M Euro
- Long Term (2029-2038): 1,809.7 M Euro

The values shown in the table are indicative, having obtained most of them from official sources. They correspond to construction cost. Operation, maintenance and financing costs (in the case of PPP or concession projects) are not considered.



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12. ACTION PLAN

The Action Plan has been also prepared. The Action Plan will constitute the roadmap of actions to be implemented in the next 20 years in the transport sector. As in the Investment Plan, the Action Plan includes their budget, the tentative time frame for the implementation, the level of prioritisation (high, medium or low), possible sources of funding, stakeholders involved (stakeholders in charge of implementing the projects) and interdependence with other programmes or general comments.





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
GENERAL						
Implementation of ANTP3 in fully accordance with EU aquis for transport, mainly attending to the Connectivity Agenda and Connectivity Reform Actions and to the extension to the Western Balkans of the Trans-European Transport Core Network (TEN-T core network).	N/A	2019	High	N/A	MIE, MFE, Prime Minister Office	
 Implementation of the ANTP3 within the National Fiscal Space. Consideration of available funds and budgetary constraints. 	N/A	2019	High	N/A	MIE, MFE, Prime Minister Office	
Integration of ANTP3 with PPP initiatives and "1 Billion USD for Reconstruction" Government Programme. The program aims to mobilize a substantial capital to promote at a much higher intensity comprehensive process of reconstruction which needs a massive funding nationwide for road infrastructure, educational infrastructure and health infrastructure.	N/A	2019	High	N/A	MIE, MFE, Prime Minister Office	
 Coordination between ANTP3 implementation and The Prime Minister Office in order to follow the structure prepared by that institution for Planning Instruments in Albania. 	N/A	2019	High	N/A	MIE, Prime Minister Office	
 Preparation of the Draft General Transport Law. 	0.2	Medium term	High	National Budget	MIE, Mol	





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
Implementation of "Service Level Agreement" for ARA with the MIE.	N/A	Medium term	High	N/A	MIE, ARA	
 Setting up a single Accident/ Incident Investigation Body to include Air, Railways and Maritime 	1	2019-2023	High	National budget	MIE, AR, GDM, ACAA	NTS
road transport						
ARA and GDRTS to adopt public financial management (PFM) and contract management practices. Increase staffs assigned to the MIE and its subordinated structures in charge of road transport and, in addition, undertake new training and capacity-building programmes.	0.6	2019-2020	High	National budget (Staff), IPA (training and capacity building)	MIE, ARA, GDRTS	NTS
 Implement the roadmap for transport legislation alignment in the road sector, harmonising the national legislation with the EU acquis for road transport of goods and passengers 	0.15	2019-2020	High	IPA	MIE	NTS
 Implement a structured pipeline of road projects 	0.2	2019-2022	High	National Budget	MIE, ARA, MFE, Prime Minister Office	NTS
 Progress in the professionalization of the road freight sector and tax incentive programmes: Promote the establishment of road hauliers' cooperatives and unions, and in addition taxation incentives for 	N/A	2020-2022	Medium	N/A	MIE, GDRTS	NTS





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
modernising the freight and passenger vehicle fleet.						
 Increase the frequency of vehicle road checks (no inspections now) 	0.5	2019-2023	High	National budget	MIE, GDRTS	NTS
Improve the regulation and licensing for road transport: toughen the license issuing procedure for road transport operators, but making it simpler (reduction of documents, etc.). Include Albania as part of UCARIS, European database vehicle registration, driver licences, tachograph cards, ADRs, etc.	0.3	2019-2024	High	National budget	MIE, GDRTS	NTS partially
 Establish more joint road BCPs (Border Crossing Points) following the principle of "single window", by implementing an Integrated Border Management (IBM) strategy 	0.3	2019-2020	Medium	National budget	MIE, GDRTS	NTS
 Harmonise axle load taxes between all SEETO countries 	N/A	2019	Medium	N/A	MIE, GDRTS, SEETO	NTS
 Increase road safety performance (maintenance of road transport infrastructures according to EU technical standards, regular implementation of Road Safety Audits & Inspections, etc.). 	3	2019	High	National budget	MIE, ARA	
 Implement road maintenance programme, increasing the expenditures per kilometre 	0.5	2019	High	National budget	MIE, MFE, ARA	





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
 Establish a detailed roadmap for updating planning, processes, standards in design and construction, operation and maintenance practice and works supervision. 	1	2019-2020	High	National budget, WB, IPA	MIE, MFE, ARA	NTS
 Preparation of a roadmap for ITS in the next 20-year planning period, prioritising data gathering processes. 	0.2	2020-2021	Medium	IPA	MIE, ARA	NTS
 Restructuring and reorganization of the intercity bus network. Proposal of new routes and services to avoid overlapping. 	0.3	2025-2030	low	National budget	MIE	-
URBAN TRANSPORT						
 Development actions to include urban transport as a key element of Albanian National Transport Plan. Improvements in data collection processes. 	0.2	Medium	low	National budget	MIE, IT, Municipalities	
 Benchmarking study, in order to make a possible a comparison between Albania and other countries and prepare guidelines to improve the sector based on successful experiences. 	0.4	Medium	low	National budget	MIE, IT, Municipalities	
rail transport						
 Establish an open legislation for a fair, non- discriminatory and transparent railway 	2	2019-2020	High	National budget and IPA	MIE, AR	NTS, rail priority #1





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
market. Finalize the adoption and effective implementation of the new railway code in line with the respective EU Directives.						
 Complete the drafting of technical specifications for interoperability. 	0.3	2020-2025	High	National budget	MIE, AR, Railway Inspection Directorate	Law 142/2016, date 22.12.2016 and law on Railway Safety Authority prepares drafts standards for the design, construction and maintenance of the control – command and signalling system, SKCS (CCS), but such tasks are outsourced even in the case of safety authorities with larger networks.
Implement the separation of activities between infrastructure and railway operations.	0.5	2019-2022	High	National budget and IPA	MIE, AR	NTS, rail priority #2
 Strengthen human capacities and resources at all levels. Also, training programmes are essential, as well as training schools 	0.1	2019-2024	High	TAIEX, IPA, and National budget	MIE, AR, Railway Inspection Directorate	NTS action plan Rail priority #2 and Rail #3
 Upgrade automation to level 1 from level 0 regarding the European Train Control System (ETCS) 	1	2020-2025	High	National budget	MIE, AR	CONNECTA-TRA-CRM-REG-03 Strategic Framework for implementation of ITS on the TEN-T Core/Comprehensive Networks in WB6
 Development PPP guidelines and roadmap for railway projects in Albania, taking the successful experience of Ballsh-Fier-Vlora as 	0.3	2018-2020	High	PPP	MIE	Connectivity Reform Management Plan CRMP 2018 Sub-action S.A. 1.1. of





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
an example						SEETO/EC for RP ALB
 Improvement of security in railway bridges 	1	2019-2021	High	National budget	MIE, AR, Mol	PBA (MTBP)
 Positioning of Albania within the European Railway Market as a player in South-East Europe transport corridors and Rail Freight Corridors 	0.5	2025-2035	Medium - Low	National budget	MIE	NTS strategic priority rail #2
 Integration of SEETO Flagship Axes Initiative into the Rail Network Europe (RNE) corridor system 	0.50	2020-2025	Medium	National budget	MIE, AR, SEETO	NTS rail priority #5
 Actions to develop the Port of Durres hinterland markets through rail connections 	0.6	2020-2022	High	IPA	MIE, AR, DPA	NTS rail priority #6 and interdependency to rail #4
 Prepare maintenance programme for the rail sector 	0.4	2019-2023	High	IFI and national budget	MIE, AR, MFE	TA to connectivity in the WB6 EuropeAid/137850/IH/ser/multi Sub-project code: Connecta-tra- CRM-Reg-02 Connectivity transport reform measures preparation of maintenance plans 2019-2023 for road/rail TEN-T Indicative extensions to WB6 final report – Railways
 Structuring the mid-long term project pipeline 	0.3	2019-2021	High	IFICO and national budget	MIE, GMSR, AR, NIC	NTS to 2020 and beyond 2021 Decision No. 185, dated 29.3.2018 on procedures for Public Investment Management
Collecting statistics in Rail Sector according	0.2	2019-2023	High	National budget	mie, ar, instat,	Through national statistics program including Rail data and law on





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
to Regulation (EU) 2018/643					IT	official statistics 17/2018 carry out the updating, adaptation and implementation of official economic and social classifications, in line with European and international nomenclatures
MARITIME TRANSPORT						
Improvement of port safety and security (VTMIS)	5	Short term	High	National budget	MIE, GMD	NSPP
 Development of a new labour regulation for Ports 	0.3	Medium Term	Medium	National budget	MIE, GMD	
Adopt changes regarding international rules and regulations: Ratify and endorse IMO (International Maritime Organization) and EMSA (European Maritime Safety Agency) regulations and other EC rules on maritime safety, security, environmental protection, and coastal management by establishing a roadmap and action plan to approximate and accompany IMO and EC regulations.	N/A	2020-2021	High	N/A	MIE, GMD	NTS
 Strengthen the General Maritime Directorate institutional, governance, financial, and human capacities. Implement the reorganization of the Directorate 	0.5	2020-2025	Medium	National budget	MIE, GMD	NTS
 Implementation of control regulations for 	N/A	Short term	High	N/A	GMD	





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
those ships carrying the Albanian flag						
 Undertake reforms in the ports' institutional structure 	N/A	Short term	High	N/A	MIE, GMD	
 Establish and implement the required information services 	N/A	Short term	High	N/A	MIE, GMD	
 Develop a Port Growth and Modernization Action Plan 	0.38	2021-2025	Medium	National budget	MIE, GMD	NTS
 Create favourable legal and institutional conditions for attracting investments to the Albanian ports: Implement new concession and preparation projects over the next period 	N/A	Medium term	Medium	N/A	MIE	
"Sea Sector Development" project: increase the integration of Albanian Naval Standards in line with EU criteria through the creation of a maritime policy framework. Education and study programs related to maritime transport	1.4	2019-2020	High	Norwegian funds	MIE, GMD Port Authorities in Albania, the Albanian Coast Guard, the Inter- Institutional Maritime Operational Center, Ministry of Tourism and the Environment and the private sector.	





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
AIR TRANSPORT						
 Budgetary program for the Civil Aviation Authority exceeding one year. 	N/A	Medium term	Medium	N/A	MIE, ACAA	
Lower airport and navigation charges as well as reduction in government taxes and aviation security surcharges, which will create more flights and subsequent increasing economic activity leading to more Government revenues.	N/A	2022-2025	Medium	N/A	MIE, ACAA	NTS
Consolidation of the ACAA outreach in air transport matters with competent transport specialists in air transport economics, systems, etc. as well as to strengthen the ACAA capacity and independence towards staff and inspector requirements, competency, and guidance materials for certification, approval, and for oversight/monitoring of the aviation industry in all areas of safety, security	0.3	2020-2025	Medium	National budget, IPA	MIE, ACAA	NTS
 Training programmes for increasing competences in the air transport sector staff. Need of piloting schools 	0.4	Short term	High	National budget, IPA	MIE, ACAA	
 Creation of a more competitive market with liberalized air services 	0.3	2020-2022	Medium	IPA	MIE, ACAA	NTS
 Implementation and unification of international standards for air safety 	N/A	Medium term	Medium	N/A	MIE, ACAA	





Type of action	Budget (M EURO)	Time frame	Level of prioritisation	Sources of funding	Stakeholders involved	Inter-dependence
LOGISTICS AND COMBINED TRANSPORT						
 Coordinate national policy measures to promote intermodal and combined transport 	1	2019-2038	High	National Budget	MIE	NTS
 Define a multimodal National ITS (Intelligent Transport System) Strategy 	0.5	Medium term	Medium	State budget	MIE	
Implementation of organizational arrangements in order to facilitate adequate services to transport companies.	N/A	Short term	High	N/A	MIE	

The total budget for the Action Plan (Short and Medium Term) is 26.43 M Euro.



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Final ANTP3 - Part I

13. ESTIMATION OF INDICATORS FOR ALL TRANSPORT MODES

As part of the NTS 2016-2020, a series of monitoring indicators was proposed to monitor the performance of the proposed actions. This list has been subject to a restructuring and expansion within the framework of the ANTP3

This section presents the list of proposed monitoring indicators for the Sub-Sector Plans of the ANTP3. The list starts from the updated version of the indicators of the strategy, which has been suitably adapted. For its elaboration, the same philosophy has been pursued based on the mix of 3 types of indicators for the correct monitoring in three differentiated levels:

- Indicators to measure the degree of implementation of a Priority Action. In this case, the indicator will be
 defined as INPUT INDICATOR, given that they provide quantitative or qualitative assessment of the
 progress towards a final objective. Focus is on the PRIORITY ACTION or GOAL
- Indicators to assess the outputs and results of an already implemented Priority Action. In this case, the
 indicator will be defined as OUTPUT INDICATOR, as they indicate to what extent an implemented –or
 partially implemented- project is benefiting its target. Focus is on the STRATEGIC PRIORITY
- Indicators to evaluate the overall course of the sector. The finality of these indicators is to account for sector-wide achievements instead of specific goals. Those indicators will be defined as OUTCOME indicators, as they represent the improvements of every Priority Action. Focus is on the SECTOR.



Final ANTP3 – Part I



14. CONCLUSIONS: ALIGNMENT OF ANTP3 WITH EU ACTIONS, PRIORITIES AND POLICIES

As it has been mentioned throughout Part III of the Plan, this second five-year review of the ANTP is deeply marked by the recently approved National transport Strategy 2016-2020.

The National Transport Strategy and Action Plan 2016-2020 was released in 2016 and constitutes the most important transport policy in recent years since continues the previous national programmes, is aligned with EU objectives and priorities, and is based on a comprehensive and detailed situation of the Albanian transport sector, considering infrastructure networks, regulations and financing instruments. Every Priority Action proposed in the ANTP3 is directly framed within the Strategic Priorities of the NTS 2016-2020, so it can be affirmed that it is aligned.

Therefore, the ANTP3 is aligned with the National Plan for European Integration (NPEI 2018-2020) which takes into consideration the Single Sector Project Pipeline (SSPP) for Transport that has already been prioritized by the Government of Albania (GoA) and other cross-cutting strategies promoted by the GoA in the fields of Business, Trade, Tourism, Environment, Energy and Social Inclusion. Therefore, and following article 8 of the Transport Community Treaty, the Plan includes the Investments in the indicative extension of the TEN-T Core Transport Network corridors prioritized through the aforementioned Single Sector Project Pipeline SSPP/SPP, a process launched on 2015.

From the regional integration perspective, the main aim of the ANTP is to create the favourable conditions for achieving deeper integration of Albania within the Western Balkan region and the EU transport market towards common standards, network efficiency and quality of transport services offered to citizens and businesses.

One of the greater developments in the reporting period were the activities undertaken in the frame of the four projects carried out by "Connecta" project on the four regional measures on road safety, maintenance, ITS, and road border-crossing facilitation. Therefore, ANTP review continues pushing forward this efforts updating ongoing measures and proposing new ones under the same framework.

The measures of each subsector plan are classified into three groups:

Operational, regulatory & licensing Actions

This type of measure includes the approximation of the Albanian legislation and regulations to the Directives of the European Commission until achieving full alignment with the acquis communautaire.

To this end, the plan promotes cooperation within the framework of the "western Balkan six" (WB6) and the "connectivity agenda". This program aims to improve regional connectivity with a holistic approach, not only from the point of view of infrastructures. So the ANTP3 contemplates within the Operational, regulatory & licensing actions the implementation of technical standards and soft measures such as aligning and simplifying border crossing procedures, railway reforms, information systems, road safety and maintenance schemes, railway unbundling and third party access .

Under the aegis, ANTP3 has tried to give continuity to the latest agreements reached in the last five-year period, that is, the **Trieste Summit** (2017) and the **Sofia Summit** (2018), as well as SEETO July 2017 Multiannual Action Plan, as staring points of the **Transport Community Treaty**.

This philosophy includes programs such as the EU-funded Technical Assistance report called "Draft road map for alignment of legislation" EuropeAid / 134513 / C / SER / AL). Also within the sub-sector road transport plan, road safety has been given great importance. For this plan review, article 12 of the Transport Community Treaty assuring convergence on road transport safety. The Government of Albania has expressed interest in the approximation of European legislation on road safety. In this sense, road safety audits as per the Directive 2008/96/EC on all projects on the core and comprehensive network have been proposed as well as the establishment of a national system for continuous road crash data collection, in accordance with WB6 Connectivity Reform Measure Management plan (CRMMP).



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Institutional & Organizational Actions

These actions include those aimed at providing the sectorial agencies -GDRT, ARA, MSM, ACAA, GMD- and their specialized departments, on the one hand, the institutional structure required by the European Guidelines (for example, AR restructuring) and on the other hand, of the capacities required for the correct exercise of their functions, making use of the Twinning programs promoted in the framework of the EU-Western Balkans cooperation.

In light of the recent Sofia Priority Agenda (2018), , ANTP3 contains the institutional arrangements required to step forward on the start the implementation of the Transport Community Treaty and full operation of its secretariat

One of its core strategies is increasing connectivity. In this line of action, the simplification and streamlining of customs processes has also received significant attention, given that it is an important pillar within the Transport Community Treaty and the Berlin Process. In this direction, ANTP3 prioritizes the advances in the implementation of the rail border crossing agreement between Montenegro and Albania as a part of Adriatic – lonian Initiative project and the implementation of Integrated Border Management (IBM) strategy ant Common Crossing Points (CCPs). An institutional enhancement to ACAA in order to speed up the implementing procedures for a 'One Stop' security for all flights from Albania as per EU regulation has been included in the plan.

A second topic highlighted in **Sofia Priority Agenda (2018)** is the Support a new rail strategy to bring the Western Balkans into the main EU network and market. In this regard, ANTP3 focuses on the required reforms to gain advancements in terms of intermodal transport.

In this regard, the Plan prioritizes an increase in the budget line allocated to Institute of Transport (IoT), to boost its role as a public body acting as a research and analytical centre to assist and support the Ministry in the completion of the National Strategy for the Promotion of Inter-modality and Combined Transport in Albania.

Within this line of action, and abreast with ITS TEN-T Core/Comprehensive Networks works in WB6 (CONNECTA-TRA-CRM-REG-03), the plan aims to provide a strategic framework for the ITS (ERTMS, ITS, RIS, VTMIS, e-freight) and IT system (e-documents, interfaces etc.) deployment in Albania through targeted action plans for each mode and their interfaces. Furthermore, these actions have been pre-identified in the **Multi-Annual Work Programme C** for 2020 of the **Connecting Europe Facility** regulation.

Planning & Investment Actions

Finally, investment programs are directly defined by the Connectivity Agenda and its Single Project Pipelines in Transportation. In this sense, the strategic investments designated by the Western Balkans Investment Framework (WBIF) have been prioritized. That is why the backbone of the ANTP3 infrastructure program is marked by the extension of TEN-T Core Network, like the reconstruction of Durres Port, Quays 1 & 2, works on the Mediterranean Corridor (Rail CVIII): Rehabilitation of Tirana - Durres Railway Line and Construction of New Line to Rinas Branch and the general upgrade of the National Road Network. The railway upgrade proposed in ANTP3 is part of a larger initiative that has been pushed forward with ERBD funding and aims to support connectivity in the region.

Following WB6 Connectivity Reform Measure Management plan (CRMMP), the establishment of functioning maintenance system ensuring no section in poor/very poor condition by 2020 has been included in every subsector plan, with focus on the Core Network Road and Rail Maintenance Plans.

Additionally, required infrastructure investments in border crossing points located on the indicative extension of TEN-T Road Core and Comprehensive Network to the Western Balkans have been addressed following the recommendations of the EU mission undertook by Connecta experts.



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