



Integrated and Sustainable Transport in Efficient Network - ISTEN

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Document information

Abstract

The present Deliverable provides a comprehensive analysis of the Landlord port of Durrës. Existing bottlenecks pertaining to market, infrastructure, operations, institutional framework and innovative services characterizing the local context are identified through the contribution of relevant stakeholders. On these bases, the analysis finally outlines plausible mid-term scenarios and their possible impacts on the evolution of the local context.

Keywords

Local context analysis, port-hinterland, bottlenecks, scenarios

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List of abbreviations and definitions

APD / DPA - Durrës Port Authority
AFTO - Albanian Ferry Terminal Operator
DCT - Durrës Container Terminal
EMS - Albanian Port Operator
TEU - Twenty-foot Equivalent Unit
DETSE - The Directorate of Environment, Technical Security and Emergencies
DPSF - Durrës Port Security Force

1 INTRODUCTION

The aim of this Deliverable is to provide an in depth local analyse of Durrës port within the framework of ISTEN project.

The deliverable is organized in three chapters beyond introduction. The second chapter introduces the characteristics of the local environment, the Port-Hinterland chain, its geography; markets served, actors involved, port-Hinterland chain operations with reference to the infrastructural system of the port and to the land connections that guarantee accessibility by road and rail; to the traffic and cargo served (types, shares and trends) and to the services provided. Also in this chapter is described the port-hinterland chain governance.

The third chapter describes the main bottlenecks identified that prevent integrated transport within port and the hinterland. This local analyse assessed the impacts of bottlenecks related to markets, infrastructures, port operations, institutions and innovation.

Chapter four introduces the potential scenarios for the development of Durrës port system in the medium term, highlighting the main development factors and indicating the expected impacts.

2 CHARACTERISTICS OF THE LOCAL ENVIRONMENT

The Port of Durrës is located in the middle of the Adriatic Sea, to the South of the Durrës City, in the northern part of the Bay of Durrës.

The Bay of Durrës is about 18 km long from the north to south, with a coastline of about 20 km to the east. To the west the waterline is more than 10 m deep. The Bay of Durrës is well protected by the Durrës Cape which provides shelter from the east through to the north-west but the main breakwater, which was built in a south eastern direction from the shore, extends that shelter through to the south.

The Bay of Durrës is well protected by all north-eastern winds by the Cape of Durrës as well from eastern and south-eastern winds blowing from inland, from the Bay of Lalzi. The breakwater protects the Port also from east and west. The Bay provides a safe anchorage for all vessels waiting to be processed at the Port.¹

The City of Durrës lies in the geographical position Latitude 41°19' North and longitude 19°27' East. It is about 35 km away from the capital Tirana, 300 km from the port of Bari and 200 km from Brindisi. Durrës is the most important transport maritime, road and railway hub in the country.

The Egnatia Road, used in ancient Dyrrah, is a confirmation of the fact that the trade routes connecting the Mediterranean ports with the Balkan Peninsula have found an important gateway transit in Durrës.

Durrës is the center of the Albanian railway station. In this city there is the biggest port and the most important one. Durrës is also the starting point of Corridor 8, and an important intersection of roads Durrës-Kukes-Morine, which connects Albania with Kosovo.



Figure 1 - Map of Corridors 8 and 10

The port of Durrës, beyond its physical dimension, is the story; it constitutes reality and no doubt that in the future will be an important factor in the life of not only the City of Durrës but also the whole country and the region. Always important as a

¹ Durrës Port Authority; <http://www.apdurrës.com.al>

strategic point, on the shore eastern Adriatic, the port has developed over the years as a privileged institution to have special attention.

The table 1 shows some technical/structural characteristics of Durrës Port including main focus use of destination, surface area of water, depth, length of the quays, surface areas and possible presence of railway link.

Table 1 - Technical/structural characteristics of Durrës port

	Main Use	Depth	Quays	Total length of quay	Yard Surface	Railway connection
Port of Durrës	Touristic	7.5 - 11.5 m	11	2275 ml	79 ha	Partly
	Commercial					
	Industrial					
	Transshipment					
	Ferry/boat activity					

2.1. Port-hinterland chain overview

Port of Durrës is the biggest port in Albania, which is called “Gateway to East”.

Durrës Port Authority is a public juridical person operating under the Law 9130 dated 08.09.2003 “On Port Authority”. The Statute of the APD was approved by DCM No. 596 dated 10.09.2004 “On the approval of APD Statute and its reorganization” which also determines the mode of its organization and functioning.

In the sense of Law No.9130 “On Port Authority” to AP is given the right to administer state property and any related rights, respecting the structure of the organization as a “landlord port”.

2.1.1 Geography

Port of Durrës is Albanian's main port and it is early known for its strategic position in the Adriatic Sea. Its geographical coordinates are: latitude 41° 19.2' N and the longitude 19° 27.2' E. It is located in the North of Durrës Bay, along the shoreline 1.4 km with a land area of about 650,000 square meters, and water area of 67 000 square meters. Port of Durrës has the quay length of 2,275 m, the basin depth of 7.5 to 11.5 m. Entrance to the port is realized through an access channel with a depth of 8.5 m, 1.8 km in length and width of 104 m. Port is generic in the sense that it processes all types of cargo, except hydrocarbons.

Average salt content of water 37%;

High tide and low tide 0.38 m to 0.94 m

Monthly min./max. air temperature 00C/+370C

Average annual air temperature 180C

Average monthly min./max. Relative humidity 58% / 69%

Average annual relative humidity 64%.

Table 2 - Technical characteristics and purpose of Durrës port's infrastructure

Name	Length(m)	Depth(m)	Usage
Quay 0	78	6.8 - 7.3	Military and border
Quay 1	186	7.1 - 7.9	Police and Customs
Quay 2	293	7.0 - 8.2	General Cargo & Ro-Ro
Quay 3	16	7.3	General Cargo & Ro-Ro
Quay 4	173	7.3 - 8.1	General Cargo & Ro-Ro
Quay 5	235	8.8 - 10	Cereals
Quay 6	265	8.6 - 10	Containers
Quay 7 & 8	400	6 - 9.9	Cruises & Ferries
Quay 9	180	5.8 - 10	Ferries
Quay 10	269	5.6 - 9.4	Bulk cargo
Quay 11	153	10 - 11.1	Bulk cargo

Durrës Port is 300 m from the city center and 500 m from railway. It is 33 km from Mother Teresa, Tirana Airport, which is the only airport in Albania.

Being the largest port of Albania with a processing volume of about 5.5 million tons per year, the number of ships arriving to/departing from port is considerable. Also regular ferry lines have been operating with Italy by a daily service.

Port of Durrës which handles roughly 78% of the country's seaborne trade in tonnage terms and 75% of all the export and import trade of the country, and this makes the Port of Durrës be the most important seaport in Albania and, together with Bar in Montenegro, the most important within the Western Balkan region. Moreover, Port of Durrës is part of Core Network and the main gate to Corridor VIII. The port has also become an attractive cruise ship tourism destination with thousands of tourists visiting the ancient City of Durrës as part of their Mediterranean tours.



Figure 2 - Durrës port view

2.1.2 Main markets served

The volume of maritime trade exchange through Durrës port is increased especially with Italy, Russia, and Turkey. More than 2.1 million tons of goods were traded from Durrës port to more than 63 different seaports in the Mediterranean region, in the United States, China, and Brazil during 2017.

Italy and Russia account respectively for 21% of the volume of goods traded via Durrës port. The list also includes Turkey, Malta, Greece, China, Egypt, Spain, Germany, the US, and Turkmenistan.

Moreover, the cargo ships that carried goods from/to Durrës transported from/to 63 major seaports, mostly located in Turkey and Italy. The port has an annual container volume of 66,000 TEU.

Table 3 - Processing of ships loading/unloading for 2017

No.	Description	Unit	Period Jan.-Dec. 2017		
			Entry in port	Exit from the port	Total
	Goods loading/unloading according to the specific ports	Total	1,008	371	1,378
I	Italy	-000 ton	68	206	273
II	Greece	-000 ton	74	-	74
III	Russia	-000 ton	312	-	312
IV	Ukraine	-000 ton	19	-	19
V	Croatia	-000 ton	15	-	15
VI	Slovenia	-000 ton	8	-	8
VII	Spain	-000 ton	33	-	33
VIII	Rumania	-000 ton	2	-	2
IX	Bulgaria	-000 ton	10	-	10
X	Turkey	-000 ton	191	-	191

XI	Tunisia	-000 ton	15	-	15
XII	Libya	-000 ton	35	-	35
XIII	Germany	-000 ton	30	-	30
XIV	Egypt	-000 ton	57	4	62
XV	France	-000 ton	4	5	9
XVI	Turkmenistan	-000 ton	3	-	3
XVII	China	-000 ton	0	56	56
XVIII	Malta	-000 ton	-	100	100
XIX	Brazil	-000 ton	5	-	5
XX	USA	-000 ton	44	-	44
XXI	Belgium	-000 ton	12	-	12
XXII	Colombia	-000 ton	6	-	6
XXIII	Guatemala	-000 ton	25	-	25
XXIV	Finland	-000 ton	15	-	15
XXV	Venezuela	-000 ton	22	-	22

During the first semester of 2018 goods for import/export from/to Durrës have been transported by ship to 55 ports in 19 European countries, Africa, Asia and America.

From the Statistics Sector data,² it is made known that the ships that have been set sailed from Durrës Port with export goods or having arrived at the largest port of our country with import goods, have stopped at 19 gates of Turkey, the country with which was traded 19% of imports and 8% of exports from Durrës. Goods set sailed from/to Durrës are also processed by nine ports in Italy, six Russian ports and four others in Greece.

Goods departing or coming to Durrës are also processed at Ukraine, Croatia, Spain, France, Bulgaria, Tunisia, Libya, Lebanon, Egypt, Malta, USA, Venezuela, Israel, etc. The main imports are construction materials, construction steel, coal, wheat, cement. The main exports are oil, bitumen, chrome ore, iron-nickel ore, textiles and marble.

Table 4 - Processing of ships in loading / unloading for the first semester of 2018

No.	Description	Unit	Period Jan.-June 2018		
			Entry in port	Exit from the port	Total
	Goods loading/unloading according to the specific ports	Total	529	111	640
I	Italy	-000 ton	28	55	83
II	Greece	-000 ton	42	-	42
III	Russia	-000 ton	156	-	156
IV	Ukraine	-000 ton	21	-	21

² Durres Port Authority - Statistic Sector.

V	Croatia	-000 ton	5	-	5
VI	Slovenia	-000 ton	3	-	3
VII	Spain	-000 ton	21	-	21
IX	Bulgaria	-000 ton	14	-	14
X	Turkey	-000 ton	100	9	109
XII	Tunisia	-000 ton	3	-	3
XIII	Libya	-000 ton	44	-	44
XIV	Germany	-000 ton	2	-	2
XV	Egypt	-000 ton	15	-	15
XVI	Holland	-000 ton	0	-	0
XVII	France	-000 ton	8	2	10
XVIII	Malta	-000 ton	0	45	45
XIX	Lebanon	-000 ton	5	-	5
XX	USA	-000 ton	12	-	12
XXI	Colombia	-000 ton	22	-	22
XXII	Israel	-000 ton	15	-	15
XXII	Venezuela	-000 ton	12	-	12

Table 5 - Cargo ships arrived in the port of Durrës - 2017

No.	Description	Measure Unit	Ships in arrival			Goods
			Albanian ships	Foreign ships	Total	
I	Ships	nr	35	462	497	1,012
II	General cargo	ton	41,013	1,787,513	1,828,527	513,797

Table 6 - Cargo ships departed from the port of Durrës - 2017

No.	Description	Measure Unit	Departed ships			Goods
			Albanian ships	Foreign ships	Total	
I	Nr	nr	-	63	63	-
II	Ton	ton	-	1,029,740	1,029,740	311,709

Table 7 - Intermodal 2017

Description	Unit	2017		
		Arrived	Departed	Total
Transport means (total)	nr.	138,820	119,934	258,754
Goods on transport means (total)	ton	514,797	311,709	826,506
Albanian transport means	ton	360,034	239,221	599,255

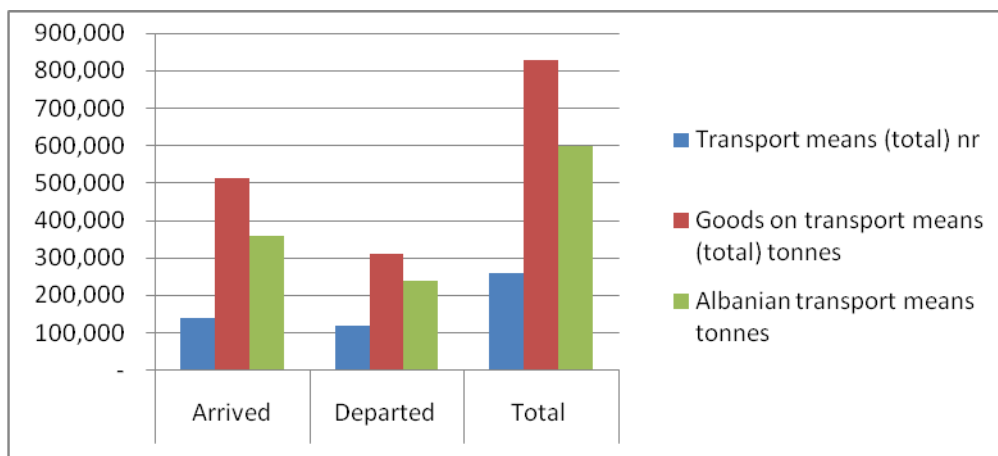


Figure 3 - Chart intermodal 2017

2.1.3 Main actors involved (private and public)

The main actors involved can be divided into two groups:

- State institutions: General Maritime Directorate, Port Authority; Customs Authority, Harbor Master, Border police, Fire Department, Medical Point, security Force
- Private companies: concessionaries operators; stevedoring companies; shipping agents, custom agents, Infrastructure maintenance, pilotage, towage, mooring, bunkering, auxiliary vessels.

Since 2013, three out of four terminals are managed by the three main private companies.



Figure 4 - Terminals management in Durrës port

EMS Albanian Port Operator Shpk

This company operates the East Terminal of the Port of Durrës since July 2013. The terminal is primarily used for the transshipment and storing of bulk cargo such as minerals, mineral ores, coal, clinker, scrap, cement and edible oil. Having the required technical capacities, at the terminal takes also place the processing of general cargo vessels such as: machineries, iron bars, pipes of different diameters, construction steel, etc. The terminal currently has two quays and a storage area of about 200,000 sqm. A third quay with additional storage area is planned. EMS APO is certified according to ISO 9001, 14001 and 18001.

Services provided

BULK CARGO	TUFFING	BREAK BULK	PROJECT CARGO	CONSULTANCY
East Terminal in Durrës is ideally suited for import, export and storage of any kind of bulk cargo. The terminal has two quays with a combined length of 420 m and a storage area of about 200,000 sqm. EMS APO has five quay cranes equipped with a specialized grabs for scrap, coal, clinker, chrome and iron nickel. Two weigh bridges are also part of the terminal, which has direct access to the Albanian rail and road net.	Export of mineral ore is mostly done by containers. EMS APO has all necessary equipment for container stuffing including bobcats and reachstaker.	An experienced staff and a wide variety of cargo handling material make EMS APO able to handle any kind of cargo. Direct access to the Albanian road and rail network offers easy access for goods of any kind.	East Terminal is ideally suited for project cargo. With direct access to the Albanian road and rail network the terminal offers easy access for goods of any kind. With an experienced staff and a wide variety of cargo handling material EMS APO is able to handle any kind of cargo.	As a member of EMS-Fehn-Group we are able to offer consultancy services along the entire transport chain with in-depth expertise in shipping, project cargo, fleet operation, trucking, special transport, warehouse management and port terminal operations.

Durrës Container Terminal SH.A. Company (DCT)

This is a concessionary company which operates the container terminal in the port of Durrës since February 2013. Due to its location, as one of the main ports of Balkan Peninsula, DCT aims to become the most strategic hub in the region for global container shipping lines by investing in providing terminal services of outstanding standards. Durrës Container Terminal SH.A, operates in an area of 55,000 sqm with an annual terminal capacity of 180,000 TEU. The water depth in the terminal is 8.5 m and the approach channel is 8.2 m.

Services provided

- Container Unloading / Loading / Shifting
- Container Stowage Lashing/ Unlashing
- Container restacking shifting
- Container storage
- Extra handling of empty / full containers on the yard
- Weighing of containers
- Container cleaning up to 20 feet / over 20 feet
- Opening and closing of hatches (full cycle)
- Power supply for temperature controlled containers
- Lump-sum charge for container truck/chassis system entering/exiting the Port of Durrës

Container trains

The container traffic in seaport of Durrës, is done by road not by rail yet, due to lack of railway link with the container terminal. Currently, a study in this regard is being conducting jointly by Durrës Port with National Albanian Railways. Wagons can be adopted to carry out containers transport via multimodal corridor VIII and SEETO Route 2 from/in Seaport of Durrës to Montenegro by Albanian Railway. Another railway line is toward FYROM, until Prrenjas East of Albania and continuing with multimodal road transport in FYROM territory where it is still missing 62.5 km railway. This part of FYROM railway link Orient-East Med TEN-T Corridor in Sofia, Bulgaria. By Albanian railway until Prrenjas to continue in multimodal by road/rail toward Greece to Thessaloniki where railway meets the Orient-East Med TEN-T Corridor and beyond to Turkey toward China.

AFTO

Area of activity: investment, management, operation, maintenance, technical improvement, adaptation and cruisers Ferry Terminal City (TTD), full use of embarkation and disembarkation, storage and procedural issues. The area in which lies the Durrës Port Hiring: dock 8, 9 together with the corresponding squares of operation.

There are 2 ferries lines operating every day from the port of Durrës towards the Italian ports, Bari and Ancona, and only during summer season is added another line operating twice a week.

The Ferry Terminal is an investment at the amount of Euro 21.8 million, constructed in compliance with the highest standards, which provides a modern, quick and qualified service. This terminal is a new gateway towards Europe.

2.2 Port-hinterland chain operations

2.2.1 Existing infrastructure (relevant for port-hinterland connections)

The port of Durrës is the main one of Pan-European Corridor VIII. The road starts in Albania in Durrës Sh4 which is only 500 m from the Port of Durrës; it intersects at Rogozhina Sh7, Sh3, and runs toward Elbasan. It crosses the road with Republic of Macedonia and passes Bulgaria the final destination Varna, it is 1,500 km length.

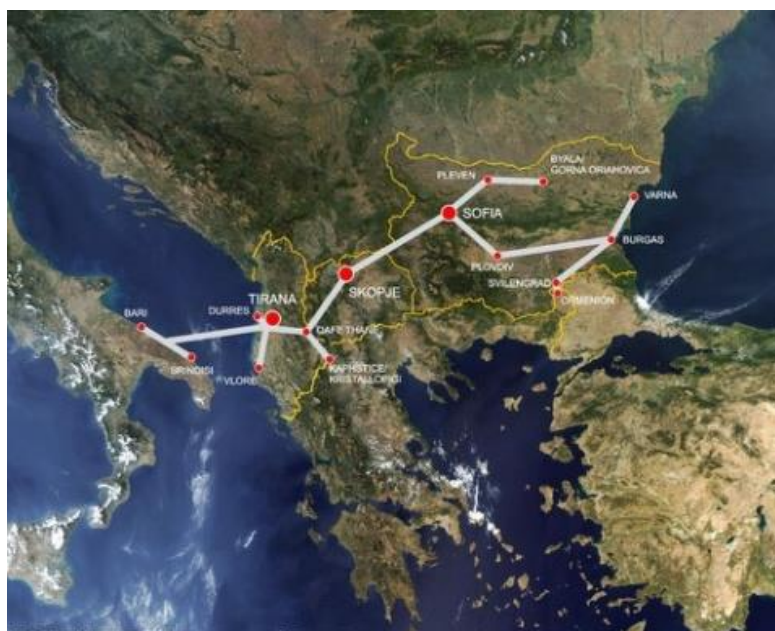


Figure 5 - Map of Corridor 8

Durrës Port by highway

The Durrës Port is the main gate of the Albanian market-entry being the first country in the Adriatic Sea. As such it becomes a very interesting alternative for landlocked countries such as Kosovo and Macedonia, which may use the services offered by Durrës Port. The geo-strategic location of Albania is generally valued as one of Balkans head-bridges of communication. Being located in the main position of Albania makes Durrës Port a key point of transport.

High-way Durrës-Kukes-Kosovo as one of the greatest engineering communication works created facilities between Albania and Kosovo, making this cooperation even stronger. Reducing costs is one of the main advantages that established the connections between the two countries. Another partner but no less important is our neighbor Macedonia, which is a great trade potential country.

Durrës Port by railway

The Durrës Port is linked to the national railway network. This is an interesting alternative and an additional option for anyone who wishes to develop trade

through this network. The railway line creates a lot of facilities which is reducing costs.

Total railway networks consists of 447 km from which 230 km secondary railway. The 11th quay area of Durrës port (The East Terminal) facility provides rail service. The operating system is active 24 hours to all operators who want to transport goods by using this line. The Ferry Terminal is close to the Central Railway Station.



Figure 6 - Durrës railway Station

The railway was functional since 2006 inside Durrës port, which ended at the West Terminal and crossed all the area with double lines.

After its reconstruction, it is present now only in the East Terminal.

The European Bank for Reconstruction and Development (EBRD) is set to provide up to €36.9 million (\$44.14 million) and the Western Balkans Investment Framework (WBIF) up to €35.5 million (\$42.46 million) in grants to develop two railway links in Albania.

The finance will be invested in more than 34 km of the current railway line between Tirana and Durrës Port on the Adriatic Coast and to construct a new 7.4 km-long rail link, which will connect both cities to Rinas International Airport.

The investment will reduce transport times for people and businesses, and encourage the use of low carbon railways over road transport (Source Ports Europe, 2018).

Harta e Sistemit System Map

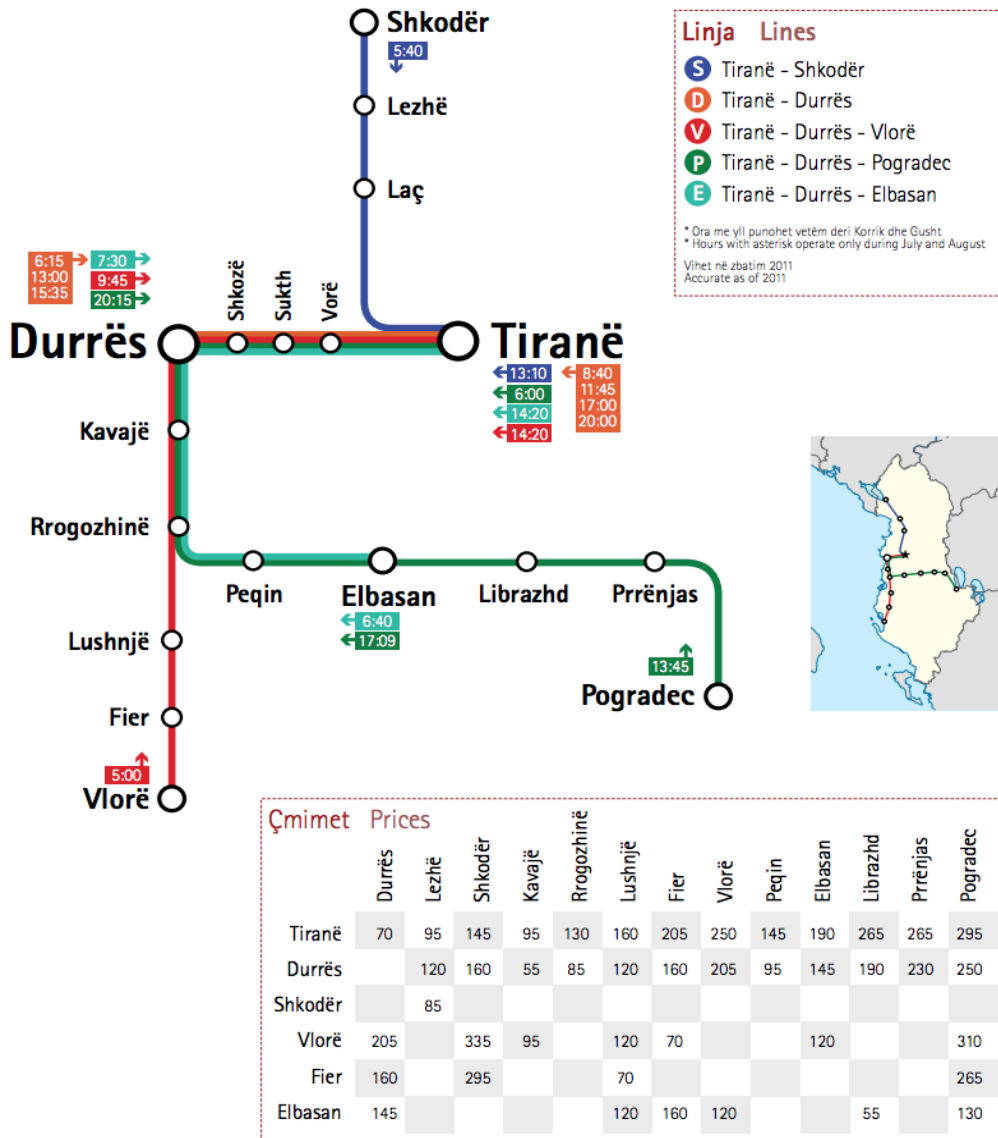


Figure 7 - Railway system map

Durrës Port from the National “Mother Teresa” Airport

If we refer the old Roman expression that “All roads lead to Rome” in Albania this expression would be “All roads lead to Durrës”. That’s why Durrës Port is a bend of all types of transport. The proximity from the airport to city of Durrës and vice versa is another advantage for the port. National Airport “Mother Teresa” is located 33 km from the port of Durrës. The 24 hour taxi services at the airport make it significantly short the distance between the two centers, and also thanks to the modern highway road which took a complete new appearance lately³.

³ Pelikan Global Logistics.



Figure 8 - Tirana International Airport "Mother Teresa"

2.2.2 Cargo served (types, shares, trends)

Three of four terminals are managed by the three main private companies.

Durrës Container Terminal SH.A. - Company (DCT) uses its own cargo means with up-to-date and environmentally friendly technology.

The three companies are responsible for loading/unloading cargo from ship to vehicle and vice versa, storing goods in magazines and squares (Figure no. 9).

ASC is a versatile stevedore company able to process all dry goods from generals to bulk ones, solid bulbs and containers. In 2012, ASC had a significant growth, especially in the container business. Meanwhile, the company has established its name as a reliable partner for all container lines.

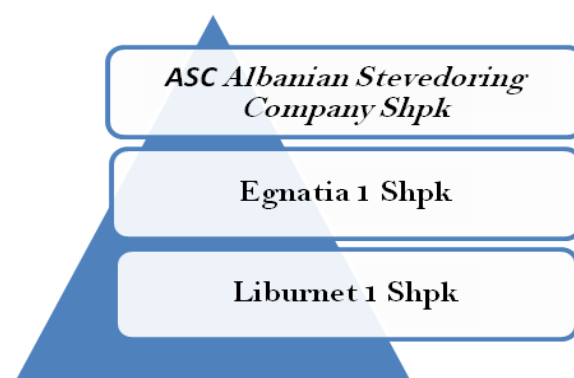


Figure 9 - Companies for loading / unloading cargo in Durrës port

The statistics show an impressive growth of containerized cargo that has been transported in containers during the recent years. The containers' traffic is gaining the biggest part of the cargoes that are being transported from different parts of the world.

The development of the containers terminal in Quay 6 and 7 made it possible to establish new markets for the Durrës port and has dramatically reduced the handling of general cargo. Container ships are being handled in Quay 6 and 7 which have an overall length of 465 ml and a backup area for storing containers of 56,000 sqm.

Referring to the master plan of Durrës Port there will be an increase of 20 % in the traffic forecast up to 2030. The company Royal Haskoning, which prepared the master plan, has applied the same correlation to forecast the traffic volume for the port of Durrës. Although the general trend is to include almost every cargo in containers, there are still some cargoes that can't be containerized.

Table 8 shows a slight increase from 2015 to 2017. Between import and export there is no relevant difference. From 2015 there is an increase at 8.8% to the export goods. From the statistics section of the DPA, it is learned that during the period January-June 2018, ferries have transported over 443 thousand tons of cargo together with passengers.

Meanwhile, commercial vessels have transported an amount of more than 1 million e 382 thousand tons of other goods. Over 38 thousand trucks and trailers with total freight used in 6 months ferries on departure and in return straight-by ports of Italy, with an increase of 3-4%, compared to January-June 2017.

Table 8 - Traffic data of Container Terminal for 2011-2017

DESCRIPTION	2011	2012	2013	2014	2015	2016	2017
TEU TOTAL	80,744	87,909	109,054	99,350	104,060	118,829	118,270
TEU EXPORT	40,747	43,638	53,938	50,612	52,006	58,986	58,920
TEU IMPORT	39,997	44,271	55,116	48,738	52,054	59,843	59,350
TOTAL SHIPS	127	164	144	165	184	200	206
TON VOLUME	1,059,238	1,171,187	1,510,430	1,300,539	1,415,404	1,578,774	1,480,459

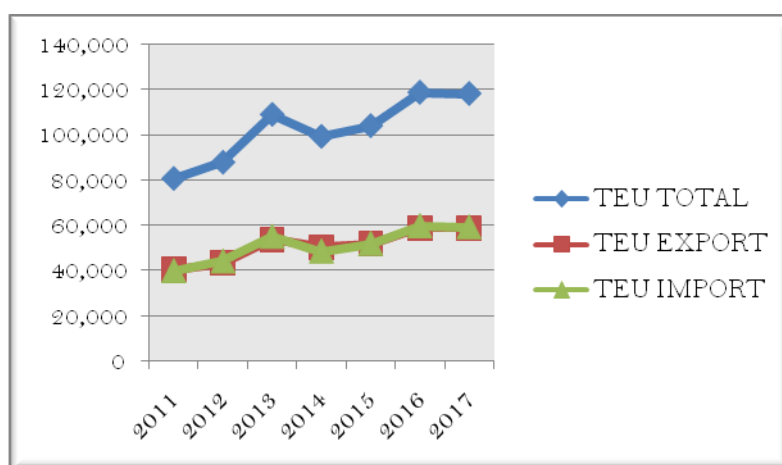


Figure 10 - Traffic frequency at the container terminal

Port of Durrës is the main gate of the Albanian market entry being the main country's port in the Adriatic. As such, it becomes a very interesting alternative for landlocked countries such as Kosovo and Macedonia, which can use the services offered by the port of Durrës.

Ferry Terminal

Table 9 - Traffic data of the Ferry Terminal for 2011-2017

Description	2011	2012	2013	2014	2015	2016	2017
Tot Passengers	853,748	798,524	717,399	774,682	774,411	839,598	879,905
Outgoing Passengers	432,602	395,268	357,683	394,983	409,283	427,724	451,628
Incoming Passengers	421,146	403,256	359,716	379,699	365,128	411,874	428,277
Tot Ferries	1,431	1,290	1,125	1,133	1,090	1,036	1,012
Ferries Forward	0	0	0	0	0	0	0
Ferries Entering	1,431	1,290	1,125	1,133	1,090	1,036	1,012
Vehicles TOTAL	252,098	245,840	215,701	215,081	216,918	240,473	258,754
Outgoing Vehicles	113,593	105,893	93,722	98,094	100,329	110,482	119,934
Incoming Vehicles	138,488	139,947	121,979	116,987	116,589	129,991	138,820

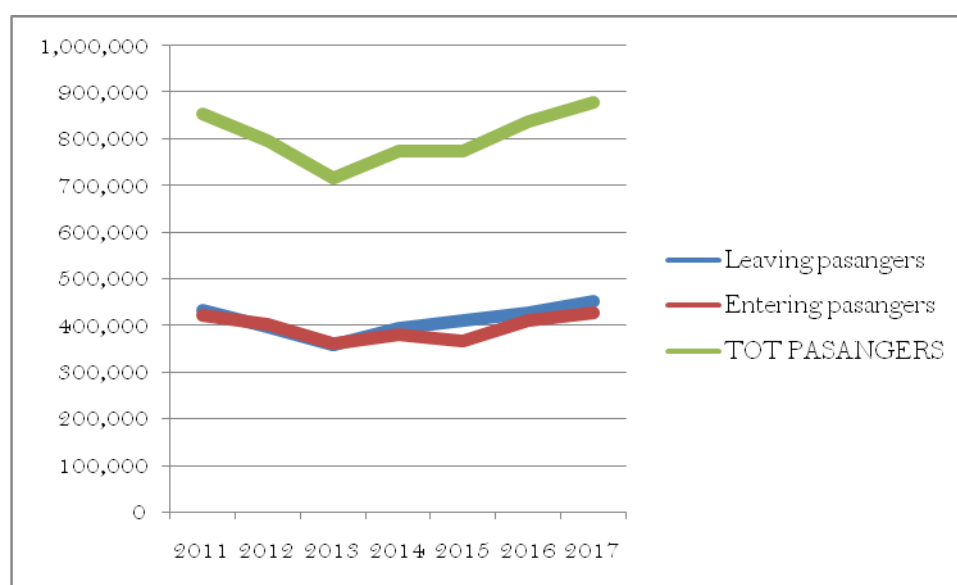


Figure 11 - Traffic data of the Ferry Terminal for 2011-2017

There were almost 879,905 ferry passengers in 2017, and the share of incoming and outgoing passengers is almost the same, with a low increase. In a two-year period, from 2016 to 2017, the number of passengers has increased with 9%.

The number of transported vehicles (cars, trucks and trailers) increased almost 7%. The ferry traffic has declined for around 29% in the port of Durrës in the period from 2011 to 2017.

From the Statistic Directory in APD, it is learned that the ferries have carried 450 roundtrips/month, with a volume of 9 percent more cargo than the same period of 2017.

Except for nearly 25 thousand cars, ferries in the first semester of 2018 have transported also about 20 thousand trucks and trains.

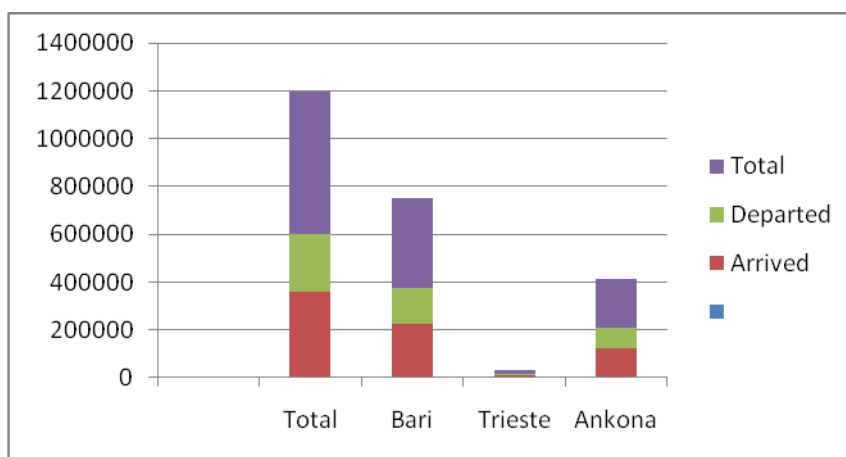


Figure 12 - Loaded and unloaded goods per Italian ports during 2017

2.2.3 Services provided (by each of the main actors involved)

The tables below show the services provided in Durrës port.

Lift & Cranes	
100+Ton Lifts	Yes
50-100 Ton Lifts	Yes
25-49 Ton-Lifts	Yes
0-24 Ton Lifts	Yes
Fixed Cranes	Yes
Mobile Cranes	Yes
Floating Cranes	Yes

Communications	
Telephone	Yes
Radio	Yes
Air	Yes
Telegraph	Yes
Radio Tel	Yes
Rail	yes

Pilotage	
Compulsory	Yes
Available	Yes
Advisable	Yes
Local Assist	Yes

Tugs	
Assist	Yes
Salvage	Yes

Table 10 - Services provided in Durrës port

	Sea Side	Land Side	Hinterland connections	Other facilities
Durrës port	Pilotage Mooring Bunkering Towage	Freights Handling	Albanian road and railway	Port Authority Harbour Master Border police Customs Fire Department Medical Point

“Sea side” services include pilotage, mooring, bunkering and towage. This service is offered to cargo ships and ferries lines. As for the “land side” is assured loading / unloading cargo from ship to trucks and vice versa, storage of goods in warehouses and squares. For the passengers of ferry boat lines there are also other facilities like Info point, parking, and taxi service, bar.

The Directorate of Environment, Technical Security and Emergencies

Service for the protection of environment is realized under the responsibility of Directory of Environment, Technical Security and Emergencies. This structure plays a crucial role in environmental issues, technical security and health at working settings. A relevant issue is environment protection within Durrës Port Authority, promotion of environmental policies for a cleaner and green port, protection of port against dangers, emergencies and various epidemics. The Directorate of Environment, Technical Security and Emergencies has direct dependence on the Executive Director according to the approved structure.

In its work, it is governed by national environmental legislation as well as international conventions ratified by the Albanian state to guarantee a healthy and sufficiently ecological environment for current and future generations based on the principle of sustainable development.

The Directorate of Environment is an integral part of DPA's organizational structure and is composed by:

- Monitoring and Environmental Protection Sector
 - Unit of Standards, Conventions and Environmental Initiatives
 - Environmental Monitoring Unit
 - Environmental Laboratory
- Epidemiological and Health Protection Sector
- DPFFR (Defense Police from Fire and Rescue) Department.

An actual environmental review of Terminals, Squares and Quays at the Durrës Port Authority from the Directory.

In Terminal East (EMS-APO Concessionaire)

1. Refurbished goods are processed in this terminal. This terminal is made up of squares and pots necessary for the processing of bulk goods, respectively the desks 10-11.
2. The problems encountered in this terminal are the logistics used for loading bulky goods, the shipping companies operating on this terminal have old transport logistics, such as heavy duty trucks, closed cargo lanes and the rail network where processes have persistent environmental contamination.
3. A part of the access road of this terminal is unpaved and in rainy days water and muddy ponds is created, while in sunny days there is a presence of dust spreading in the air during the passage of trucks loaded with goods different.

DETSE suggests:

- The road pavement in the entrance of eastern terminal to avoid the pollution that is created
- To improve the logistics of road transport.

The Western Terminals are operated by the stewardship firms (ASC - Liburnet 1 - Egnatia 1)

1. In this terminal is operated with the processing of general goods and bulk. This terminal consists of squares and quays for the processing of the aforesaid goods respectively 1-2-3-4-5.

2. Problems occurring from time to time in this terminal are the old technology used starting from "worms, portable dinghy, and road transport vehicles" used for the processing of goods; these trucks are amortized and pass across the Port territory.

DETSE suggests:

- To improve the technology for the processing of bulk and general goods and to lay asphalt the damaged parts of the piers 1 and 2, in order to avoid environmental pollution from the potholes in these sewers.

In Container Terminal (DCT)

1. The environmental situation is generally within the parameters, as it is a terminal where it is distinguished for the loading and unloading processes of the containers. Sometimes pollution is evident due to oil leaks from containers that process containers.

At the Ferry Terminal (AFTO)

Monitoring the Cleaning of the Passenger Terminal Building

- Terminal building and the land area where the company operates is generally in good hygienic conditions.

Air monitoring

- There is generally no air pollution from the dust due to movement of vehicles in the area where the company operates.

Table 11 - Carbon Dioxide (CO₂) laboratory analyses in DPA - first semester 2018

	Statement	January	February	March	April	May	June	July
CO ₂	4500	512	510	552	568	572	511	451

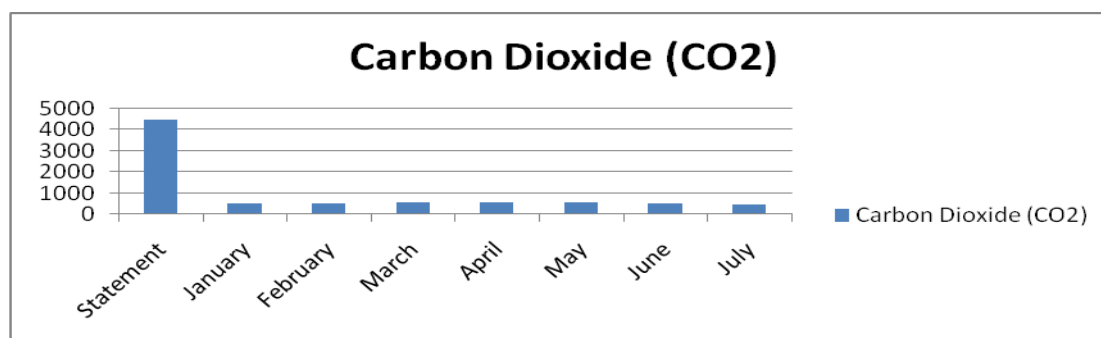


Figure 13 - Analyses of CO₂ in Durrës Port

Quantity of solid waste generated in port

- Solids 8 m³ per month.
- Waste wastes 13 m³ per month.
- DPA does not apply to oils produced by an officer or elsewhere.
- Solid waste processing is not done by DPA, but a specialized firm that deals with waste disposal such as printer batteries, etc.

The Technical Security Unit

The Technical Security Unit focuses on guaranteeing technical security in space Durrës Port Authority where explicitly audits safety standards at work from public and non-public entities, as well as controlling and assisting formal practices documentary of these subjects.

DPA is responsible for security at the port. The environmental protection and the safety and security service, are part of the DPA and operate under Executive Directory, according the framework and regulation.

The Section FSPD is tasked with protecting and maintaining the infrastructure and facilities and port values. Creating a safe and convenient environment for the Port Authority and other operators operating in the port space over 24 hours is the main objective of the FSPD (Durrës Port Security Force). The port security plans of Durrës are in line with the International Ship and Port Safety Code, the International Maritime Organization (IMO) and the Convention (Solas) 1974.

2.3 Port-hinterland chain governance

Durrës Port Authority is a public juridical person operating under the Law no. 9130 dated 08.09.2003 “On the Port Authority”. The Statute of the APD was approved by DCM No. 596 dated 10.09.2004 “On the approval of the APD Statute and its reorganization” which also determines the mode of its organization and functioning.

The Law creates conditions to operate as an independent self-founding authority, consequently increase the opportunities to respond quickly and directly to the port users’ needs and new challenges as EU candidate country.

“Landowner Port” is the status of DPA, where port services and superstructures will be realized by private operators. And the only responsible and coordinating authority for port activities such as loading and unloading, maintenance of infrastructure and superstructure, maintenance of the aquarium, maintenance of equipment and buildings and in conjunction with the shipping companies, carries out the distribution and distribution of the goods. Its mission is *“Performing an efficient management to provide the shipping Community and users of the Port Facilities, a quality service and reliable, for the transfer of goods from maritime to land based transportation modes at a competitive prices in accordance with the international regulations for environmental protection”*.

Durrës Port Authority (DPA) governing bodies are:

- Governing Council,
- Executive Directory, headed by the General Director, who is responsible for the day-to-day operations and management of the port.

Based in the Law no. 9130 dated 08.09.2003 “For the Port Authority” Durrës Port Authority are supported in its activity by Consultative Council.

The PDA is a legal entity, responsible for all port related activities, i.e. cargo handling, maintenance of nautical and port infrastructure and superstructure, equipment and buildings and to carry out loading and discharging operations together with the associated storage and receiving of goods to and from road and rail.

Port of Durrës handles all types of cargo including dry bulk, break bulk, liquid bulk, general cargo, chemicals, dangerous cargo, containers, Ro-Ro, heavy lift cargo etc. It consists of imports of various kinds of goods such as wheat, cement, fuels, construction material, foodstuff, containers etc, and exports of minerals like chrome ore, Ferro-chrome, scrap, containers and general cargo.

With 2.2 kilometers of operational quay and 11 berths the Port of Durrës is capable to handle about 78% of Albania’s total international maritime traffic. The port of Durrës currently has a commercial capacity over 5 million tons of bulk and general cargo.

After privatization of several services during last year the port is undertaking structural and organizational changes to make it more responsive to demands of a rapidly changing market place.

It is restructuring itself to become a landlord port with most of port operating services been provided by private sector. These operational and administrative improvements receive strong support from the Albanian government which is committed in facilitating trade through the Balkans as a port of Euro Atlantic integration process that the region is currently undergoing.

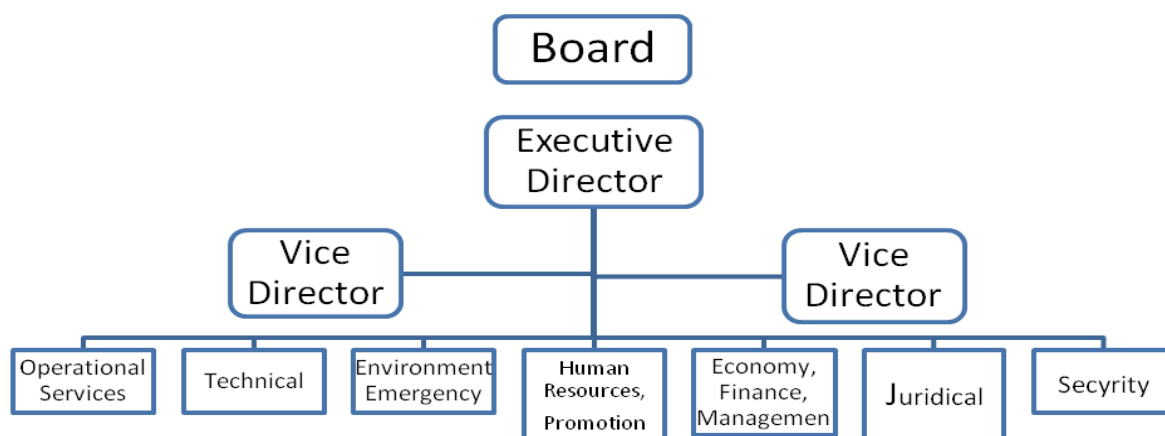


Figure 14 - Main management structures of Durrës port

Terminals:

Durrës port is organized in 4 terminals.

- Passengers Terminal / Ro-Ro
- Containers Terminal
- East Terminal (bulk cargo)
- West Terminal (general cargo)



Figure 15 - Durrës Port Terminals

FERRY TERMINAL

The berth no. 9 is dedicated to passenger traffic in the port of Durrës. The area of passenger terminal is 87,094 sqm, its depth is 8 m, and the berth's length is 180 m. The terminal has 5 posts for ferries and 1 for catamaran. The port of Durrës has a tourist information point.

From September 2013 the terminal is managed by AFTO (Albanian Ferry Terminal Operator). To handle passengers and cars the terminal has all necessary infrastructure facilities such as check in post, border and custom control, scanners, scales, benches and luggage trolleys. Regular ferry lines destinations are Bari and Ancona.

There are three shipping agents treating ferry boats from Durrës Port: Adria Ferries, Duni, Niki Mare.

Table 12 - Ferry boats frequency

Route	Operator	Sailings	Crossing	Period
Durrës - Bari	Adria Ferries	1 sailing daily	9 hours	year
	Ventouris Ferries	1 - 2 sailings daily	9 hours	year
	Grandi Navi Veloci	1 - 2 sailings daily	9 hours	year
Durrës - Ancona	Adria Ferries	2 sailings weekly	20 hours	year

Table 13 - Characteristics, equipment and processing capacity of the Ferry Terminal

Terminal characteristics		Terminal equipments		Handling Capacity	
Terminal surface	86,432 sqm	Border Control offices installed	46	Handling capacities	2,000 passengers at once
Terminal building	5,482 sqm	Passenger control	10	Handling capacities	5 to 6 ferries at once
Quay length	580 ml	Auto control	24	Handling volume	1.5 million passengers per year
Quay depth	7.5m-11.m	Trucks, buses and trailers control	12	Handling volume	250,000 vehicles per year

CONTAINER TERMINAL

The container terminal is managed from February 2013 from DCT - Durrës Container Terminal. The terminal implements the 24-hour working system and has available a considerable number of modern equipment.

Table 14 - Characteristics, equipment and processing capacity of the Container Terminal

Terminal characteristics		Terminal equipments		Handling Capacity	
Terminal surface	60,062 sqm	Reachstacker	5 units	Handling capacities	180,000 TEU/year
		Terminal chassis	5 units	Storage capacity	3000 TEU
Quay length	265 ml	Mobile cranes	2 units 63 ton up to 100 ton capacity	Reefer plugs	200
Quay depth	8.6m-10.m	Forklift	1 unit		

Main lines operating in the Durrës Port are:

1. ZIM - Haifa, Israel;
2. MSC - Gioia Tauro, Italy;
3. CMA CGM - Malta;
4. MEDAZOV - Castellon, Spain;
5. MAERSK - Malta, Marsaxlokk;
6. COSCO.

EASTERN TERMINAL

The East Terminal is managed since July 2013 by EMS - Albanian Port Operator. The main activity of East Terminal is loading/unloading of bulk cargoes such as minerals, mineral ores, coal, scrap, cement, vegetables oil and general cargo such as machinery, steel bars, steel constructions. The terminal provides the storing of the related cargoes as well.

Table 15 - Characteristics and equipment of the Eastern Terminal

Terminal characteristics		Terminal equipments	
Terminal surface	185,140 sqm	Electric cranes	5
Railway length	1,000 ml	quay	15 - 27.5 ton
Quay length	422 m	Fork lift	1
Quay depth	5.6 m - 11.1 m	Container stuck	1
		Trailer	1
		Diggers	4
		Grabs	2

WESTERN TERMINAL

The West Terminal or general cargo terminal is located in the western part of the port and is managed by Durrës Port Authority. The terminal can handle all types of general cargo as pallets, semi-pallets, slings, bags, rotary, chemicals, cereals etc.

Table 16 - Characteristics and equipment of the Western Terminal

Terminal characteristics		Terminal equipments		Handling Capacity	
Terminal surface	92,680 sqm	Electric cranes	10	Processing capacity	2,500,000 ton per year
Covered warehouse	5,152 sqm	quay cranes	2	Processed volume	800,000 ton per year
Quay length	735 ml	10 ton capacity	1	Ships processed	270 ships per year
Quay depth	7.0 m - 8.2m	Electric crane	1		
Quay number	5	45 ton capacity	1		
		Mobile crane MHC 200	1		
		120 ton capacity	1		
		Mobile crane MHC 115	5		
		65 ton capacity			
		Cereals silos			
		1.500 ton storage capacity			

3 BOTTLENECKS TOWARDS BECOMING AN INTEGRATED HUB

3.1 Market bottlenecks

The local analysis identified the following main bottlenecks.

There is a limited market for intermodal services within the port system. The port operators use mainly road infrastructure for the goods transport.

Land access to the port is only by road. The road connection to port is passing through the urban and inhabited area. There is no direct access to railway and not used by the hinterland actors.

Ro-Ro arrive in the port of Durrës at Quay 6 and concessionaire arrange for unloading of containers, which are loaded then on trucks that leave for local distribution.

The railway line is only operative partly at the eastern terminal, but is not used by the operators as there is no security and not extended to all the terminals. The quality of the services offered by the railway transport is such that cannot meet the requirements of the present transport market. In the past the railway ran up to almost all port's quays.

The railway is convenient to economic benefits but there is no road and railway crossing. The railway has a priority. The rail terminal is located at least 5 km from the port area.

3.2 Infrastructural bottlenecks

Port operators especially the ones operating in shipping have emphasized the inadequate port infrastructure such as the length of quay, depth, lack of appropriate surface to operate, and lack of railway connections and road networks around the port.

There is also an inadequate soft infrastructure especially toward Rail Operational System, Customs clearance system, and interfaces between systems.

The Container Terminal faces often difficulties due to the big number of them, especially during the summer season, where there is an increase of material goods, and they can't operate high rates as customs clearance system cannot afford such flow.

This impact directly commercial benefits especially incomes and competition.

3.3 Operational bottlenecks

There is no coordination between operational actors within port, and among public and private actors.

Another bottleneck identified was the inability to quantify the financial & economic benefits of port hinterland actors' coordination/cooperation.

This may influence in the future quality and enlargement of the services.

3.4 Institutional bottlenecks

Most common bottlenecks identified through this survey were:

- lack of coordination and collaboration;
- fragmented planning at local/regional/national level.

3.5 Innovation bottlenecks

Most common bottlenecks identified through this survey were:

- low innovation content in the services provided;
- not harmonised (or missing) digital information exchange between port-hinterland actors and between operational & public (e.g. customs) actors.

Public and private actors operating within port emphasized the needs to fulfil the gaps of employees' skills in technological innovation and toward maturity of emerging technological solutions.

4 MEDIUM-TERM SCENARIOS

4.1 Main factors to influence future development

The major problem of the intermodal market is non coordination, which can be seen in the daily work, where ports, private operators (shipping companies, railroads), agents, freight forwarders, etc. carry out their own activities without any consultations or standardisation on a national or regional level. This results in the emergence of many bottlenecks in the transport system, both nationally and regionally.

Based on the survey, the major factors influencing the development of Durrës Port are as listed below:

Table 17 - Major factors likely to influence Durrës Port development

Public investment in hard & soft infrastructure	Private investments in the port/rail industry	Automation in port & hinterland processes	Governance system of Port Authority
Low investments in hard & soft infrastructure	Private investments in the port/rail industry a slight decrease	Low automation in port & hinterland processes	A-politic system of Port Authority leaders
Investments in hard & soft infrastructure unchanged	Private investments in the port/rail industry a slight increase	A slight automation in port & hinterland processes	A weak political influence in the system of Port Authority governance
Investments in hard & soft infrastructure increased	Coordinated private investments in the port/rail industry at local/national level	Deep automation in port & hinterland processes experiences	A strong political influence in the system of Port Authority governance
	Fragmented private investments in the port/rail industry at local/national level	A slight automation in port & hinterland processes experiences increase	

4.2 Scenarios' formulation

The main objective is the integration between ports in order to promote intermodal hinterland of Durrës. The scenario for port development should be in respect with the national strategy for port and coastal area, in a national and international context putting forward the integration of Albanian transport infrastructures into that of Balkan and European Networks.

The Port of Durrës is the main port in Albania, and its own strategic position, is hardly a competitive from other ports of country. The privatizations of services have increased the port performance indicators, but these indicators are still below the levels of other ports of Mediterranean Region. Port Authority should monitor and asks the operators and concessionaires' performance, enhancing port or harbor, which would impact directly on increasing the port's outputs and reduce operational costs.

The Port of Durrës has adopted modern systems and information technology. Ensuring effectiveness of these systems should be complemented with training of personnel and operators. Increasing the level of security is a constant demand and necessary to attract as much cargo from the port.

The growth of value-added services is a necessity to meet the requirements of the supply chain. The introduction of value-added services in the port of Durrës will create more opportunities to transform the port into a dynamic logistics centre.

Scenario A

Increased investments in hard & soft infrastructure improve the dwell time of containers in order to have a better efficient use of the terminal area. Through coordinated private investments in the port/rail industry at local/national level will improve the intermodal services in Durrës Port. Meantime deep automation in port & hinterland processes is recommended, but due to high investment costs it is difficult to be achieved.

Scenario B

In Durrës Port investments in hard & soft infrastructure remain unchanged the operators and different agencies are satisfied with the actual situation.

A-politic system of Port Authority leaders requires a slight increase of private investment in the port/rail industry to reinforce the role of Durrës Port as a gateway in Balkan Region and European Network.

Scenario C

Low investments in hard & soft infrastructure will influence directly to the traffic flows in and out Durrës Port. However a weak political influence in the system of Port Authority governance will help all the stakeholders involved to effective management of all resources. As part of different strategies private investments in

the port/rail industry at local/national level are needed but they are still fragmented.

4.3 Expected impacts of alternative scenarios

The expected impacts consist in the improvement of the Durrës port system and in its integration and full operation in the Adriatic-Ionian region.

Lacking of rail link with containers terminal, and the overall poor conditions of Albanian railway network, its weak connections with network beyond Albanian borders, affects the performance and the productivity of the terminal and therefore the question of the land use vs. land area available becomes very important.

The technological innovations will have not the adequate results if the personnel and operators are not trained. It can be increased the capacity of the cargo in the port but not the quantity linked with the operational system.

Improving the navigational capacities of the port such as deepening the access channel, basin and the quaysides will make it possible for the port to accommodate bigger ships and this will result in bigger throughput for the port but without resolving the issue of land needed in order to face the increasing forecasted future containers traffic, this investment will not achieve its expectations.

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