



REPUBLIC OF TÜRKİYE
MINISTRY OF TRANSPORT
AND INFRASTRUCTURE



2053

Transport and Logistics Master Plan





2053
Transport and Logistics Master Plan

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“

Activity and vitality of economic life; it is only proportional to the condition and degree of transportation means, roads, trains, ports.

”

1923

K. Atatürk



“

As the key element of development, the better point we reach in transportation investments, we will pave the way for the growth and strengthening of our country. To achieve this goal, we are determined to continue our transportation and infrastructure investments without interruption.

”

Recep Tayyip Erdoğan

President of Türkiye



As the Ministry of Transport and Infrastructure, we have put into service world-scale projects in transportation and communication on every side of the big and powerful Türkiye.

While designing the future from today, we continue to work to bring a scientific-based, environmentally friendly, sustainable and historically sensitive transportation infrastructure to our country, focusing on logistics, mobility and digitalization.

The Transport and Logistics Master Plan, completed in April 2022, is prepared by combining the transport and logistics sectors. This plan is crucial in determining the priorities of investments by using more rational and mathematical models until 2053, being a guiding document for institutions and organizations serving in the sector and being the product of a participatory study.

In our 20-year stable journey, we have increased the quality of life of our citizens with our services that we have implemented with significant investments in the transportation sector. In this context, we have prioritized infrastructure investments and regulatory policies until 2053 for the future with the Transport and Logistics Master Plan.

With the awareness that the only key to growth and development is stability, we are determined to continuously resume our transportation and infrastructure investments. We will first continue to connect every side of Türkiye and then the world. We will bring the tradition of transportation and infrastructure, which has made a name for itself in the world with mega projects for 20 years, to the future by strengthening it.

Our eyes are our people; our foresight is our experience; our motivation for the future is the prosperous new generation; our path is stability.

I hope that the Transport and Logistics Master Plan, in which we have created our 2053 transportation vision and will make Türkiye the leading country in the transportation sector in its region, will be beneficial to our nation.

Because we know that the goal waits for the intent, life begins when it is reached!

ADİL KARAIŞMAİLOĞLU
MINISTER OF TRANSPORT AND INFRASTRUCTURE



EXECUTIVE SUMMARY

The need to update the National Transport Master Plan, whose preparations were completed as of the end of 2017 and whose final projection year is 2035, including the regulations related to the Türkiye Logistics Master Plan, in the light of changing conditions, socio-economic environment and expectations arose. Firstly; It has become necessary to re-evaluate the target years of the current National Transport Master Plan, which is thought to be the implementation, monitoring and evaluation tool of the National Transport Policy, and all of the infrastructure project proposals and policy measures that are currently foreseen to be implemented until 2035.

In this context, the 11th Development Plan (2019-2023) and the 2020 Presidential Annual Program, under the heading '2.2.3.8 Logistics and Transport, Policy and Measures', in the 'Measure No. 514.1', it is included that "Türkiye Logistics Master Plan and National Transport Master Plan will be completed in a coordinated manner."

Accordingly, the main lines of the studies carried out within the "Transport and Logistics Master Plan" are outlined in the Inception Report.

Transport and Logistics Master Plan consists of three basic stages, except the project opening and closing activities, according to the methodology developed in the specification of the study.

1st Phase: Collection, Analysis and Evaluation of Actual Data

It is aimed to create the database that will develop the project and form the basis of the following stages in the first stage of the "Transport and Logistics Master Plan" work. For this purpose, actual data presented in the appendix of the 'Inception Report' and will be forwarded to the Consultant Team by the Administration have been collected and classified. As these data form is the basis for the next steps, they have been analyzed and evaluated.

2nd Phase: Modelling

In the 'Modelling' part, which is the second phase of the project, the 2019 model structure was created based on the database produced in accordance with

the results of the first phase. After the 'Transportation Planning Model' was revised in light of current data, the applicability of the model was tested. According to national and internationally accepted standards, model calibration and validation processes have been completed.

3rd Phase: Preparation of the Transport and Logistics Master Plan

Within the scope of the work carried out until the last stage in the "Transport and Logistics Master Plan", a methodological process was followed and demand forecasting models were created with mathematical methods, and a comprehensive study was put forward in accordance with the targeted projection years. Planning concepts and measures, which are the main functions of the Transport and Logistics Master Plan, have been defined, and in connection with this issue, a socially acceptable, appropriate and economical infrastructure has been created in a way that will protect the environment and resources today and in the future, then "Transport and Logistics Master Plan" has been completed.

Following these stages; As mentioned in the Revised Transport Planning Model Methodology Report prepared within the scope of the Transport and Logistics Master Plan; The Revised Transport Planning Model was created, updated, developed, calibrated and validated by combining the National Transport Master Plan prepared within the scope of the passenger and freight examination in Türkiye, and the Türkiye Logistics Master Plan models reflect the current situation of the logistics industry, into a single model.

In the modelling phase, first, updating studies were carried out with the data collected for 2019 on the model with 2016 data, and the final model structure was created. In order to determine the applicability of the created model, the performance of the model was measured and compared. Model calibration and validation processes have been completed according to national and internationally accepted standards, to demonstrate in writing the compliance of the measurement procedure with the determined purposes and its performance.

An integrated model was created using the PTV

VISUM program with the passenger model structure obtained from NTMP and the logistics model structure obtained from TLMP. The Traffic Analysis Zone (TAZ) developed with the clustering of some districts for the NTMP Model was determined as 532 traffic analysis zones in the country and 82 zones for abroad. NUTS-3 level is used as a base for zoning of the logistics model. The number of TABs consists of 707 traffic analysis zones, of which 642 are from inner zones and 65 from outer zones in the Revised Transport Planning Model created within the scope of the Transport and Logistics Master Plan.

Subsequently, update studies have been carried out that include all of the geographical or other numerical data that affect the functioning of the national transportation system and constitute input to the National Transport Master Plan (NTMP) Model and Türkiye Logistics Master Plan (TLMP) Model in the “Collection and Analysis of Actual Data Report” prepared within the scope of the Transport and Logistics Master Plan.

In order to ensure that the NTMP and TLMP models work on the same platform, which forms the basis of the Transport and Logistics Master Plan studies, correspondence and face-to-face meetings were carried out with many institutions related to the study to update both the NTMP data and the data related to the TLMP model inputs, and the collection has been achieved.

The NTMP model was calibrated using 2016 data while the TLMP model was calibrated using 2017 data. In this plan, work has been carried out on updating data of both models for 2019. Thus, the same geographical and digital infrastructure was prepared for 2019 in both models, and they were gathered under the same software. After the collecting actual data, the macro modelling infrastructure for both models was prepared using 2019 data. Simultaneously, work on converting the TLMP model, established with 2017 data, to PTV VISUM software was completed and both models were updated with 2019 data under PTV VISUM software.

In addition to collecting actual data, the situation assessment of the NTMP model and TLMP model is provided, providing information on the operation of

existing models. In this context, the version files of the provided NTMP model for 2016, 2023, 2029 and 2035 combined (Annual Average Weekday Traffic-AAWT) period and the version files prepared for the summer period were examined. Afterwards, the model flow (Procedure Sequence) prepared in the Variable Demand Model (VDM) is given in detail. In addition, the traditional 4-Step Travel Demand Model adapted to the logistics model prepared using CUBE software for the TLMP model was examined; The flow chart of the model and the important inputs used are given in the report.

Following these stages; Multi-Criteria Assessment (MCA) has been identified as a technique for making a decision based on a clear set of objectives and criteria related to those objectives. Typically, MCA is used to evaluate and rank alternative options within an impact assessment. This method is particularly useful when there are several quantitative and/or qualitative effects measured over different units. The criteria used should be measurable; that is, it should be possible to evaluate, at least qualitatively, how well a particular option will have an impact in relation to the criteria. To avoid double counts, the criteria and the number of indicators associated with these criteria have been kept as low as possible.

In the multi-criteria assessment study, decisions regarding transport and logistics activities were considered in plans such as Development Plans, Türkiye Transport Policy Document and Climate Change Action Plan, which were prepared as top policy documents for our country.

The issues related to the subject that is in plans for this purpose were examined and included in the relevant report.

Multi-criteria assessment methods such as TOPSIS, ANP, AHP and ELECTRE are mentioned in the related report. Within the scope of this study, the Analytical Hierarchy Process (AHP) method, which is used as a multi-criteria assessment method because it is widely preferred in political, economic, social and technical fields, is explained.

Indicators and measurement methods are of great importance in multi-criteria assessment studies. Besides, indicators should be available in quality and



quantity and should be comparable with previous similar studies. In this context, multi-criteria assessment methods, assessment criteria and indicators were examined in detail in the previous National Transport Master Plan and Türkiye Logistics Master Plan studies.

As a result, the assessment criteria and indicators used in the multi-criteria assessment AHP method used in the Transport and Logistics Master Plan project are given. The scores and weightings obtained from stakeholder interviews and workshops conducted for this purpose were determined.

The results obtained from the Revised Transportation Planning Models for the years 2023, 2029, 2035 and 2053, which were prepared at the end of these studies, provided input to the 'Problems and Bottlenecks Report'. The ultimate goal is to identify the inadequacies, problems and bottlenecks that may arise in the transport and logistics infrastructure system in Türkiye until 2053.

Within the scope of the Problems and Bottlenecks Report, primarily the 2019 base year model and the independent variables used in the model are discussed. The independent variables that provide input to the model have been updated for the target years. In this context, sociodemographic data, GDP data, the monetary value of time data, highway fees data, road passenger ticket data and logistics transport system data have been updated for the target years 2023, 2029, 2035 and 2053.

Along with the base model for 2019, road network models were prepared for the target years and forecast models were prepared for each projection year. In these models, the passenger and freight values were assigned to the system, and primarily, the results of the 2019 base year model were revealed and evaluated under the title of "Current Situation Analysis". In this way, it was checked whether the problems experienced in 2019 were compatible with the model outputs, and it was seen that the results obtained reflected the truth.

Afterwards, in the models prepared for the target years 2023, 2029, 2035 and 2053, respectively, passenger and freight assignments and the assignment results

for private vehicle, public transportation passenger and freight for road, rail, sea and airline systems were evaluated. Thus, the bottlenecks that may arise in the future have been identified.

Alternative scenarios were generated within the framework of the adopted vision, goals, and strategies to solve the bottlenecks identified within the model, to eliminate the problems and the inadequacies. The model inputs in this context were evaluated as the continuation scenario (Do Nothing Scenario – DNS) during the creation of the scenarios.

Alternative Scenarios, developed under the vision, purpose, target, and strategies of the Transport and Logistics Master Plan, and created with the aim of solving the inadequacies, problems, and bottlenecks included in the Problems and Bottlenecks Report, are determined as follows:

1. Digital Scenario
2. Green (Sustainable) Scenario
3. Export and Mobility Oriented Scenario

Transport and Logistics Master Plan the revised objectives and targets and the performance indicators and target years values suggested accordingly were taken into account at the workshop held in Afyonkarahisar on 8-9 July 2021.

All Alternative Scenarios contain the Do-Nothing Scenario (DNS), including ongoing investments. The Digital Scenario also contains the Do-Nothing Scenario, with ITS prioritizing digital solutions for safety and security. The Green (Sustainable) Scenario prioritizes environmental and social sensitivities. Export and Mobility Oriented Scenario highlights international and national mobility with the country's export of high value-added products. Considering the developments that emerged during the pandemic process, alternative scenarios were evaluated for global epidemic processes.

Following this process, in the multi-criteria assessment study, the decisions regarding transport and logistics activities in the Development Plans, Türkiye Transport Policy Document, Climate

Change Action Plan and the Final Declaration of the 12th Transport and Communication Council, were prepared as top policy documents for the country, were taken into consideration. For this purpose, the issues related to the subject in the relevant plans were examined and included in the study.

Indicators and measurement methods are of great importance in multi-criteria assessment studies. It has been ensured that the indicators are available in terms of quality and quantity and are comparable with previous similar studies. In this context, multi-criteria assessment methods, assessment criteria and indicators were examined in detail in the previous Transport Master Plan and Türkiye Logistics Master Plan.

A workshop was held in Afyonkarahisar on July 9, 2021, to determine and weight the criteria to be used in multi-criteria assessment studies. Before the workshop, except for the 12th Transport and Communications Council Final Declaration mentioned above, other top policy documents were examined, expert opinions were received, and a draft study on the criteria was sent to the participants in consultation with the Administration. Necessary revisions were made before the workshop so the criteria were made to be discussed and weighted in the workshop.

In the Multi-Criteria Assessment Session of the workshop, the stakeholders were divided into working groups according to 7 different sectors and each group worked in its own table setting.

These groups are listed below:

1. Highway Passenger Transport and Terminals
2. Highway Freight Transport and Terminals
3. Railways Passenger and Freight Transportation and Terminals (Except Logistics Centers)
4. Sea Freight and Passenger Transport and Terminals, Pipelines
5. Airway Freight and Passenger Transport and Terminals

6. Logistics, Logistics Centers, Freight Production and Attraction Centers (OIZ, Free Zone, warehouse, etc.) and Corridors
7. E-Commerce Logistics, Postal Service, Package and Courier Activities

The main and sub-criteria in the multi-Criteria Assessment were presented to the stakeholders for their opinions during the Multi-Criteria Assessment Session. The main criteria were evaluated by the stakeholders with the AHP Method and the pairwise comparison technique, so the weights of the main criteria were determined. Sub-matrices based on main criteria were scored between 1 and 9 (9 being the most important). Sub-matrices and agreed sub-criteria weights were obtained by taking the arithmetic average of the assessments from each participant. AHP calculations were completed, and the overall weights of all sub-criteria were calculated.

The weights of the main criteria determined by each stakeholder were collected in a single table and their geometric average was taken. The result table was presented to all stakeholders in the conference order and their opinions were taken.

The criteria and indicators obtained as a result of the workshop and the indicator values obtained from the Revised Transportation Planning Model and Socio-Economic and Financial Analysis studies were compared. The criteria have been revised based on the indicators that can obtain numerical values.

In the Socio-Economic and Preliminary Financial Analysis, alternative scenarios (Digital Scenario, Green (Sustainable) Scenario, Export and Mobility Oriented Scenario) proposed within the framework of the Transport and Logistics Master Plan were evaluated using socioeconomic and financial analysis methods, and each alternative compared with the current situation (trend scenario). Net Present Value (NPV), Internal Rate of Return (IRR) and Benefit/Cost Ratio (BCR) indicators were used in the evaluation.

The cost of each project was calculated by estimating fixed costs (investment costs and renewal costs) and operational costs (maintenance and operating

costs) during the evaluation period (2019-2053). The benefits are evaluated under two main headings: economic and social benefits of users (change in travel time, highway vehicle usage costs, accident costs) and environmental benefits (noise reduction, air pollution and greenhouse gas effects).

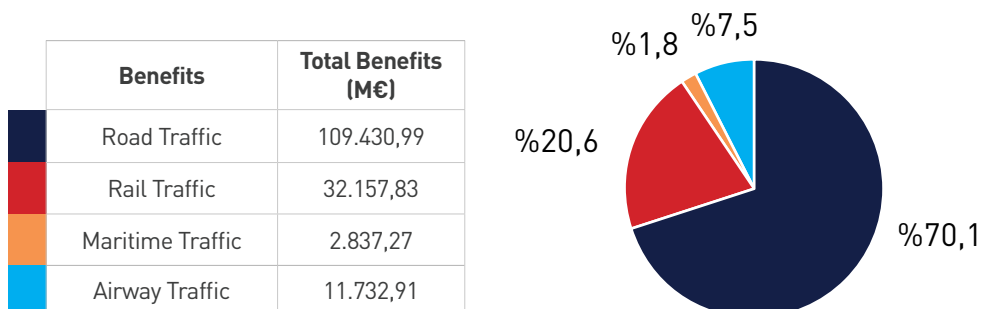
Among the alternatives, the plans made for all modes of transport (road, rail, air and sea) have been considered separately. Also, the annual net cash flow in the target years and the net present values of these values were calculated for each mode.

Estimated operating cash flows over the target years were obtained at the project and scenario level.

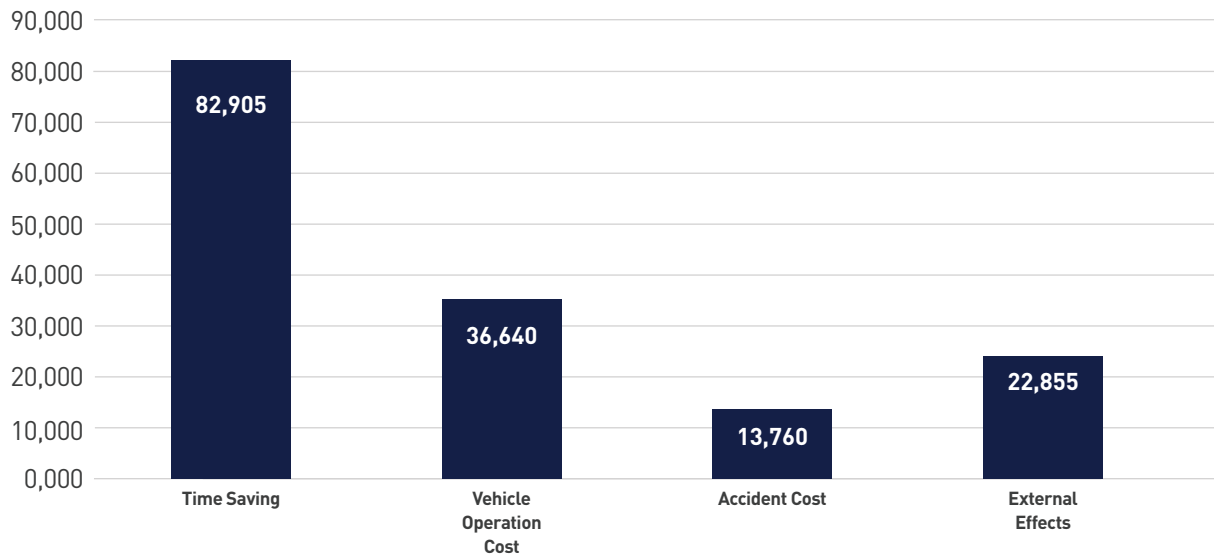
The NPV, IRR and BCR values obtained from the socio-economic analysis of the determined scenarios are given in the table below. The values in this table are the indicators obtained as a result of the socio-economic analysis of the projects proposed in the green (sustainable) scenario, different from the current situation (trend scenario) scenario.

Economic Analysis Indicators / Scenarios	Digital	Export and Mobility Oriented	Green (Sustainable)
Net Present Value (M€ 2019)	7.550,17	4.862,06	20.926,51
Internal Rate of Return (IRR)	%24	%14	%36
Benefit/Cost Ratio (BCR)	1,82	1,37	3,22

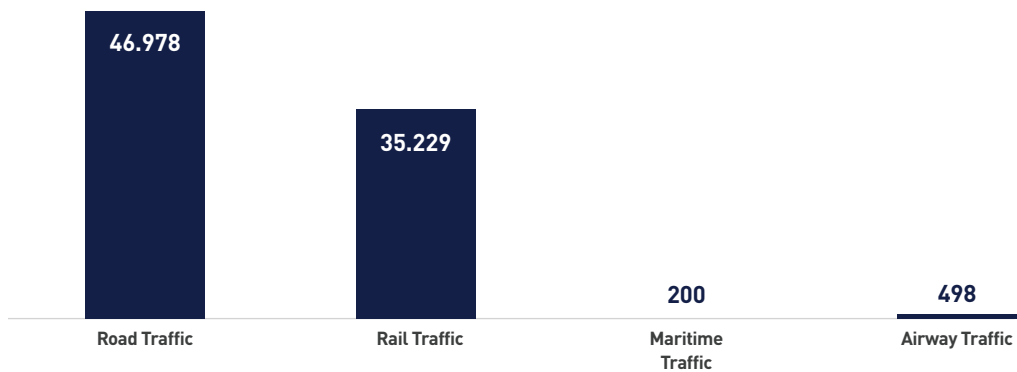
The Green (Sustainable) Scenario is the scenario with the highest NPV, IRR and BCR values and was selected as the final scenario of the Transport and Logistics Master Plan. The graph showing the benefits of transport sectors, total benefits, time saving and external effects like air pollution of this scenario is given below.



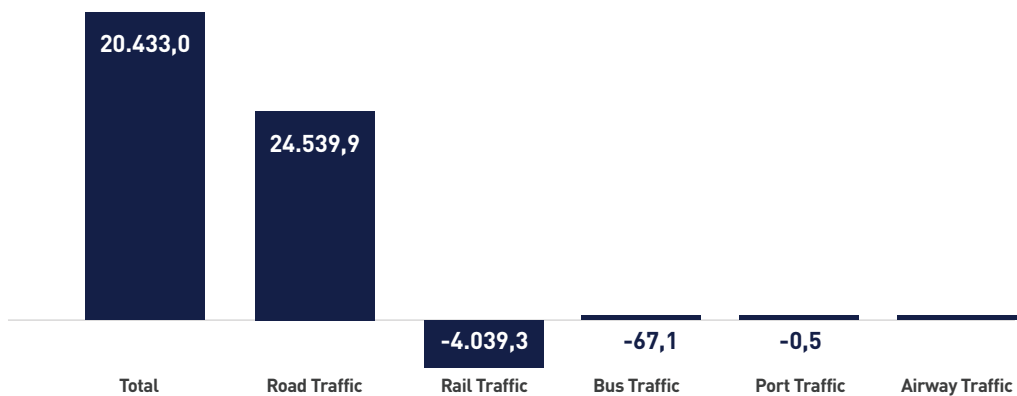
Total Benefits (M€ 2019)



Time Saving (M€)



Air Pollution (M€)



The project investment costs and freight and passenger distribution of the selected Green (Sustainable) Scenario, are given in the table below on a sectoral basis.

Freight	2019		2023		2029		2035		2053	
	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Railway	32.802.953	%3,13	54.963.658	%5,08	146.421.644	%11,24	306.213.835	%20,12	448.258.886	%21,93
Maritime*	260.345.604	%24,85	254.343.564	%23,53	275.767.732	%21,16	314.297.690	%20,66	420.978.275	%20,60
Highway	754.368.488	%72,01	771.622.973	%71,39	880.754.875	%67,60	901.090.974	%59,22	1.174.532.817	%57,47
Total	1.047.516.045	%100,00	1.080.929.194	%100,00	1.302.944.251	%100,00	1.521.602.499	%100,00	2.043.769.978	%100,00

Foreign Freight	2019		2023		2029		2035		2053	
	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Railway	3.164.701	%1,13	6.349.654	%2,19	17.454.223	%5,63	24.842.537	%7,04	46.075.285	%11,94
Maritime*	206.486.712	%74,00	212.830.772	%73,45	221.878.762	%71,57	251.329.898	%71,21	261.069.858	%67,66
Highway	69.386.154	%24,87	70.597.256	%24,36	70.662.896	%22,79	76.756.809	%21,75	78.737.512	%20,40
Total	279.037.567	%100,00	289.777.682	%100,00	309.995.881	%100,00	352.929.244	%100,00	385.882.655	%100,00

Passenger	2019		2023		2029		2035		2053	
	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Bus	509.853.464	%26,75	535.002.474	%26,29	579.318.248	%24,54	641.718.358	%23,37	904.764.010	%20,79
Rail**	16.914.783	%0,89	19.544.860	%0,96	97.915.506	%4,15	145.692.317	%5,31	269.789.761	%6,20
Private Car	1.267.386.520	%66,49	1.368.324.762	%67,23	1.555.932.397	%65,90	1.825.646.672	%66,50	2.974.106.035	%68,35
Airway***	111.861.237	%5,87	112.445.899	%5,52	128.003.977	%5,42	132.326.642	%4,82	202.833.054	%4,66
Total	1.906.016.00	%100,00	2.035.317.99	%100,00	2.361.170.129	%100,00	2.745.383.989	%100,00	4.351.492.860	%100,00

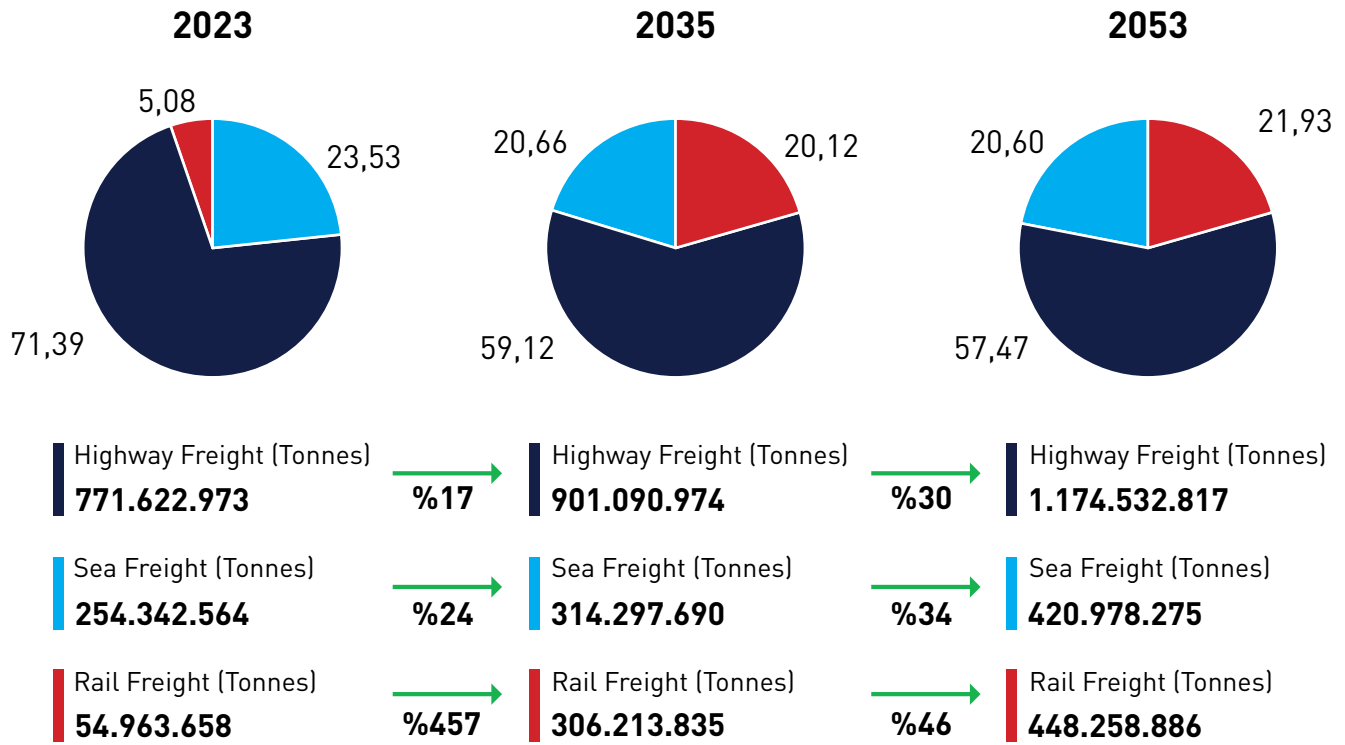
* Liquid bulk freight and transit freight are excluded.

** Values in rail passenger show the number of trips.

***Values in airway passengers show the number of trips, and this value is predicted as 344.388.341 for the 2053 target year, based on the number of passengers arriving and departing the airport.

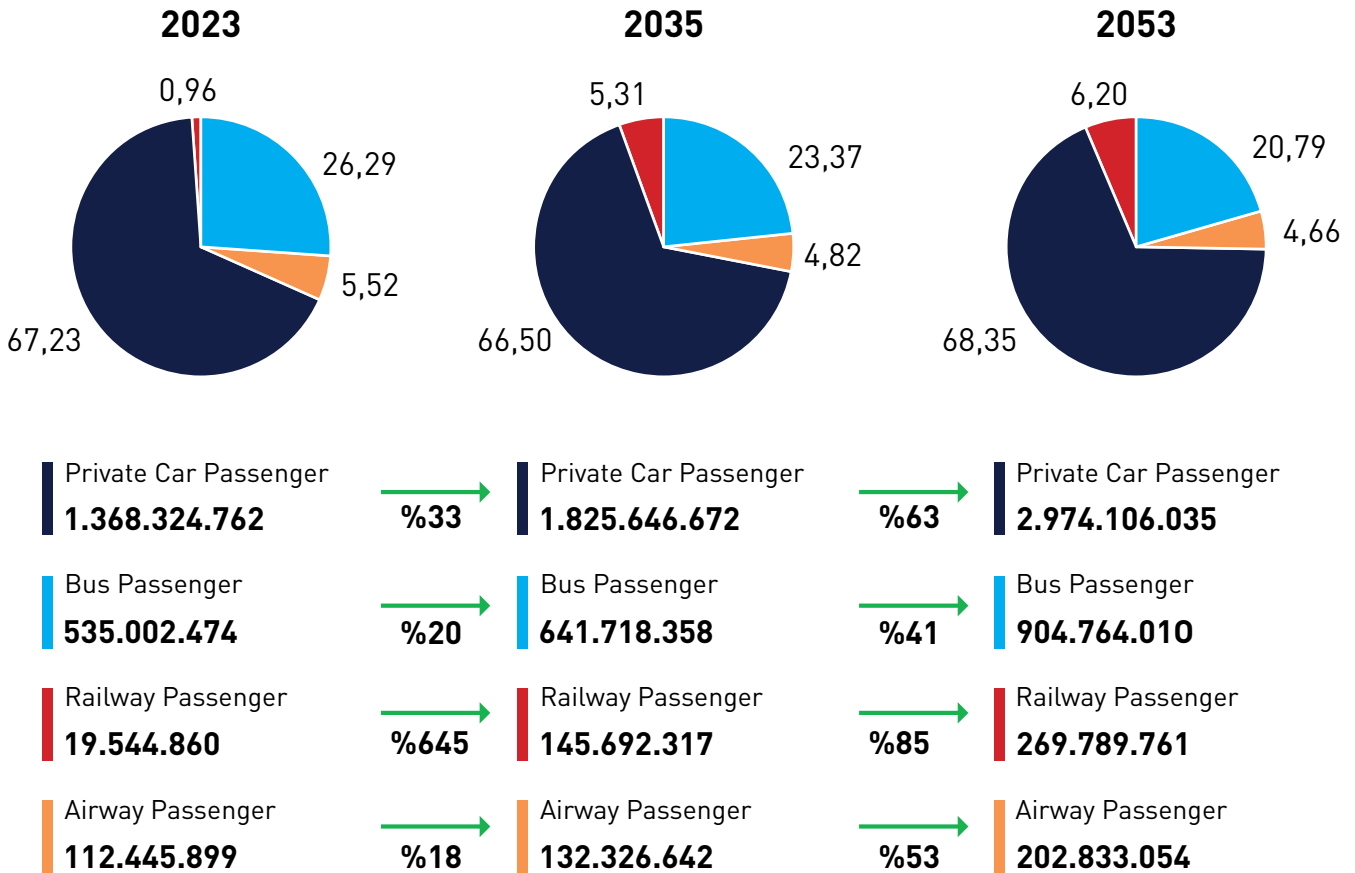
Green (Sustainable) Scenario

FREIGHT



	2019 - 2023		2024 - 2029		2030 - 2035		2036 - 2053		Total
	Billion \$	Ratio	Billion \$	Ratio	Billion \$	Ratio	Billion \$	Ratio	
Road	8,33	%36,5	13,87	%23,8	11,05	%31,4	3,00	%33,0	36,25
Rail	9,00	%39,4	27,18	%46,6	21,85	%62,1	5,90	%65,0	63,93
Maritime	4,80	%21,0	14,32	%24,5	2,13	%6,1	0,13	%1,4	21,39
Airway	0,71	%3,1	3,01	%5,2	0,15	%0,4	0,05	%0,5	3,92
Total	22,85	%100	58,38	%100	35,17	%100	9,08	%100	125,48

PASSENGER



After that, as mentioned in the 'Recommendations for Intelligent Transportation Systems' prepared within the scope of the Transport and Logistics Master Plan; updating studies that include all of the geographical or other numerical data that affect the functioning of the national transportation system and constitute the input to the National Transport Master Plan Model (NTMP) and Türkiye Logistics Master Plan (TLMP) Model part together with current situation analysis, developing technologies and recommendations for Intelligent Transportation Systems, is included.

Intelligent transportation systems, which is one of the important issues within the Transport and Logistics Master Plan, have been thoroughly investigated. The relevant information is given in the Report on Recommendations for Intelligent Transportation

Systems. A sustainable format has been tried to be achieved by determining the report titles and the whole of the content grounded on previous studies and guiding future studies.

At the end of this stage, studies that will provide input to the Transport and Logistics Master Plan Project about Intelligent Transportation Systems and analyze the current situation have been examined, and estimates and suggestions for the projection years have been presented. As examined in the Report on Suggestions for the Development of Transport Strategies for Logistics Activities, considering the strategies and suggestions developed within the scope of the Türkiye Logistics Master Plan regarding Logistic Activities, in accordance with the vision, goals and strategies, the situation of the logistics sector



in Türkiye, alternative The “Do Nothing Scenario”, on which the scenarios were built, was constructed, analyzed and evaluated. As a result of these analyzes, the Recommendations Report for the Development of Logistics Activities and Transportation Strategies was developed to form a basis for the logistics strategies and recommendations developed by TLMP. At this stage, recommendations were created under the following main headings:

1. Logistics

2. Highway Freight Transportation

3. Railway Freight Transportation

4. Maritime Freight Transportation

5. Airway Freight Transportation

6. Multi-Modal Air Freight Transportation

7. Logistics Centers and Warehousing

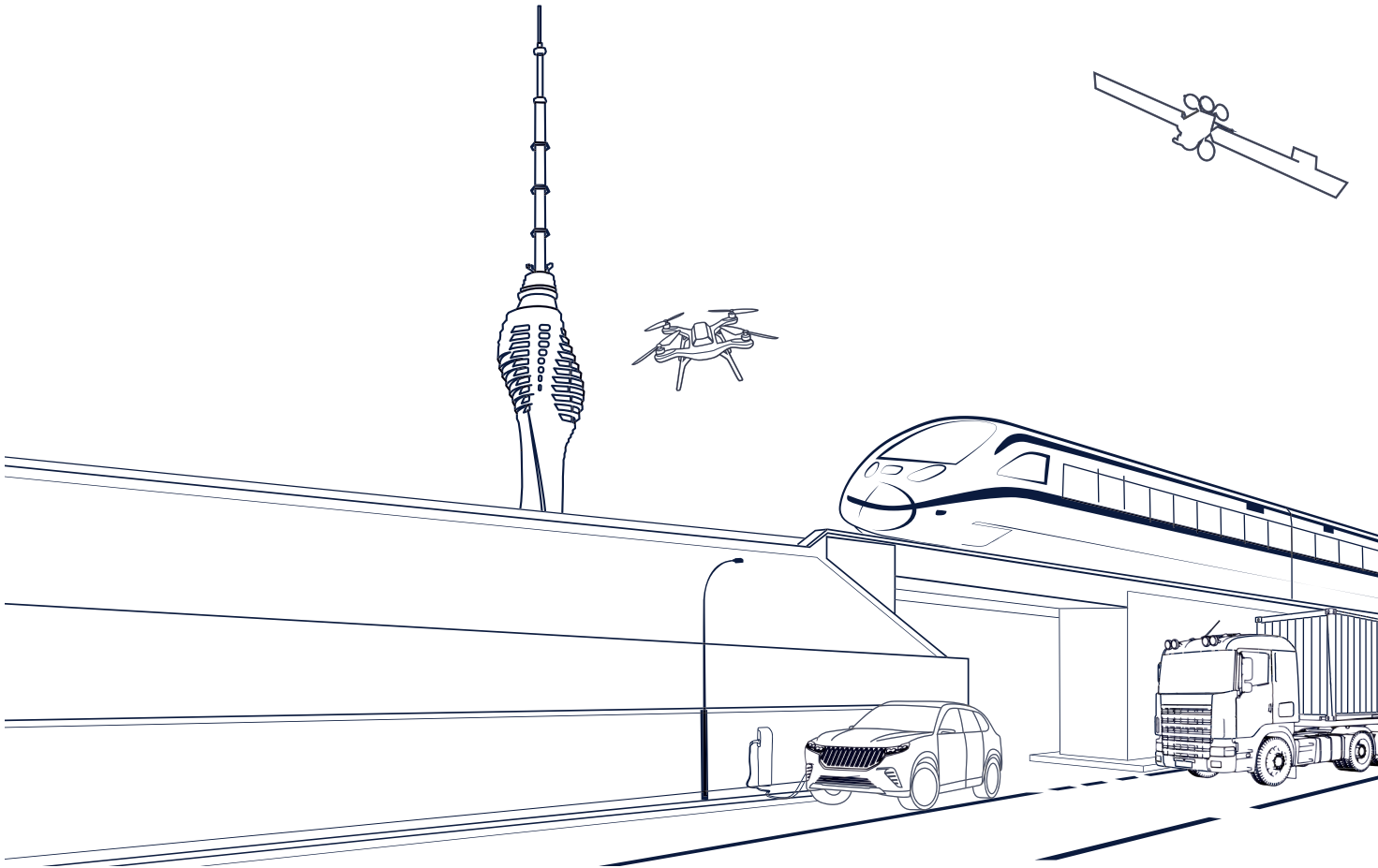
Recommendations created under these main headings are grouped according to the following sub-criteria:

1. Increasing Mobility

2. Balancing Modes of Transport

3. Optimum Use of Infrastructure

4. Increasing Service Quality and Operational Efficiency



5. Increasing Energy Efficiency and Environmental Awareness

6. Safety and Security Improvement

7. Increasing the Quality and Efficiency of Human Resources

8. Increasing the Level of Technology and Digitization

9. Improving Investment Opportunities

10. Increasing Business Development Activities

As a result, the Transport and Logistics Master Plan and Executive Summary were prepared within the scope of the Transport and Logistics Master Plan,

and the studies carried out throughout the process are presented in this report.

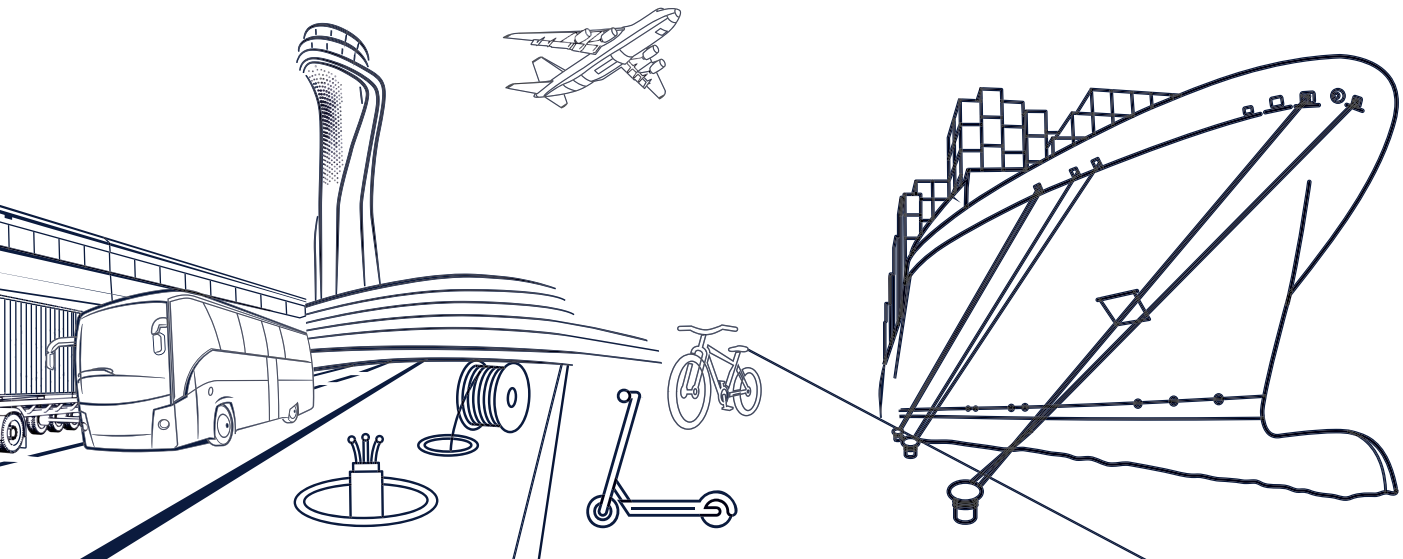


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ABBREVIATIONS AND ACRONYMS

VOC	: Vehicle Operation Costs	ACARS	: Aircraft Communications Addressing and Reporting System
TURKSTAT	: Türkiye Statistical Institute	AIS	: Automatic Identification System
HSR	: High-Speed Rail	VTSTS	: The Vessel Traffic Services of The Turkish Straits
AHP	: Analytical Hierarchy Process	TLMP	: Türkiye Logistics Master Plan
R&D	: Research and Development	TAZ	: Traffic Analysis Zone
ITS	: Intelligent Transportation System	GIS	: Geographic Information Systems
GDP	: Gross Domestic Product	NTDB	: National Transport Data Base
PPP	: Public-Private Partnership	USMS	: Urban Safety Management System
LPI	: Logistics Performance Index	CPI	: Consumer Price Index
OEZ	: Organized Industrial Zone	DPPI	: Domestic Producer Price Index
NPR	: Number Plate Recognition	ISO	: International Organization for Standardization
EU	: European Union	VAT	: Value-added tax
ICT	: Information and Communications Technology	NUTS	: Nomenclature of Territorial Units for Statistics
BOT	: Build – Operate – Transfer	LNG	: Liquefied Natural Gas
HBM	: Hot Bituminous Mixture	SCADA	: Supervisory Control and Data Acquisition
GGC	: Gendarmerie General Command	TEU	: Twenty-foot Equivalent Unit
GDS	: General Directorate of Security	SEA	: Strategic Environmental Assessment
GDH	: General Directorate of Highways		
BAF	: Bunker Adjustment Factor		
WIM	: Weigh-in-motion		
4PL	: Fourth Party Logistics		
STS	: Ship Traffic Services		
ANPR	: Automatic Number Plate Recognition		
DGM	: Directorate General of Meteorology		
CAD	: Computer-Aided Design		
AVL	: Automatic Vehicle Location		
ECS	: Electronic Control System		
FP	: Fast Pass		
AFC	: Automated Fare Collection		
RDS	: Radio Data System		
DAB	: Digital Audio Broadcasting		



Çamlıca Tower



1. SOCIO-ECONOMIC STATUS



1. SOCIO-ECONOMIC STATUS

1.1 Socio-economic Status of Türkiye

The Turkish economy grew by 7,4% in the third quarter of 2021. GDP adjusted for seasonal and calendar effects increased by 2,7% in the third quarter of 2021. According to the growth realized in terms of production in the third quarter:

- Value-added in the industrial sector increased by 10,0%. Thus, the industrial sector contributed 1,8% to the overall economy's 21,7% growth in the second quarter of the year. The increase in the industrial value-added was in line with the 40,3% increase in the industrial production index in the second quarter.

- The value-added of the service sector (including construction) increased by 12,5% in the third quarter, contributing 7,1 points to GDP growth in the second quarter. When the sub-components of the services sector are examined,

- Trade, transportation and accommodation activities 20,7%,
- Information and communication activities 22,6%,
- Real estate activities 4,7%,
- Professional, administrative and support service activities 25,4%,
- Public administration, education, health and social service activities 8,3,
- Other service activities recorded a growth of 11,7%,

- In this period, the construction sector, finance, and insurance activities shrank by 6,7% and 19,9%, respectively, and failed to grow.

- Agricultural sector value-added decreased by 5,9% in the third quarter. According to the growth in terms of expenditures in the third quarter of 2021, within current data, private consumption expenditures increased by 9,1%, contributing 5,4 points to economic growth. The increase in the expenditures on semi-durable consumer goods (23,6%) and the increase in the expenditures on services (20,4%) were effective in this increase in consumption.

- Public consumption expenditures increased by 9,6% in the third quarter of 2021. Thus, public consumption expenditures contributed 1,2 points to economic growth by the end of 2021. While total consumption increased by 9,2% in the third quarter of 2021, its contribution to growth was 6,6 points.

In the third quarter of 2021, the GDP deflator increased by 26,2%. The complete removal of restrictions as of July provided the revival of the tourism sector, and the growth of transportation and accommodation services supported the growth of the total services sector. The complete removal of restrictions as of July provided the revival of the tourism sector, and the growth of transportation and accommodation services supported the growth of the total services sector. Despite the significant negative impact of the global chip crisis in the automotive and white goods sectors, its strong momentum in the industrial sector continued. On the other hand, the low level of tax collections related to oil and natural gas, the decrease in revenues related to title deed fees, and the base effect from last year caused a significant decrease in the tax-subsidy item. (Republic of Türkiye Presidency of Strategy and Budget Development Department, Economic Developments Report)

Table 1.1 Annual Population Growth Rates in Türkiye by Periods

Period	2019-2023	2024-2029	2030-2035	2036-2053
Annual Population Increase Rate (%)	1,11	1,05	0,98	0,77

1.2 Population Forecasting

According to TURKSTAT data, the population of Türkiye in 2019 is 83 million 154 thousand 997 people. It is estimated that the population growth rate will change by 1,11% between 2019- 2023, 1,05% between 2024-2029, 0,98% between 2030-2035 and 0,77% between 2036-2053. The population is estimated to be 112.606.719 in 2053.

For population variable projections, the last revised province-based 2000-2025 population and population projections time series published by TURKSTAT were used. For population variable projections, the last revised province-based 2000-2025 population and population projections time series published by TURKSTAT were used. While the projections for 2023 are taken directly from this series, the linear trend model for some provinces and the quadratic trend

model and ARIMA time series model are used for the province-based projections for 2029, 2035 and 2053.

Linear trend model:

$$Y_{tj1} = a_0 + a_1 t + \varepsilon_t = 1, 2, \dots, \text{number of province}$$

Quadratic trend model:

$$Y_{tj2} = \beta_0 + \beta_1 t + \beta_2 t^2 + \varepsilon_t$$

ARIMA: $ARIMA(p, d, q)$

After applying all suitable methods for estimation, selection was used according to the model selection criterion. In addition, the acceptability of the value estimated for the future years on a provincial basis and the knowledge that the general population growth rate of Türkiye will reverse in the 2050s are used.



1. SOCIO-ECONOMIC STATUS

1.3 GDP Forecast

While the annual growth rate of GDP per capita at the national level decreased by 1,31% in 2019-2023, it is expected to change by 1,95% between 2024-2029, 4,59% in 2030-2035 and 0,42% in 2036-2053.

Table 1.2 GDP Growth Forecast

Period	2019-2023	2024-2029	2030-2035	2036-2053
Annual Percentage Change	%-1,31	%1,95	%4,59	%0,42

Within the scope of model studies, time series data with annual current prices on a provincial basis between 2004-2019, which was revised and finalized by TURKSTAT, was used for the projections regarding the gross domestic product variable. For the estimations of 2023, 2029, 2035, and 2053, the time series ARIMA (p,d,q) was used first, but unacceptable estimations were obtained as the time series extended in some provinces. Therefore, the estimations are obtained with the first-order trend model. It has been observed that the trend model estimations are close to the ARIMA

estimations, as well as acceptable estimations for the problematic provinces.

GDP estimates were made by using the linear trend model within the model studies. Nominal GDP and growth values for the years 2004-2020 and real growth and GDP figures according to inflation are given in Table 1.3. In addition, the estimated nominal and real GDP values for the model target years are calculated according to the assumption of inflation and added to the same table.



Table 1.3 Nominal and Real GDP and Growth Values and Inflation Figures

Year	Nominal GDP (x1000)	Nominal Growth (%)	Yearly Inflation (%)	Annual Real Growth (%)	Real GDP (x1000)
2004	582.852.799				
2005	680.275.847	16,715	7,720	8,995	631.522.324
2006	795.757.109	16,976	9,650	7,326	725.724.677
2007	887.714.414	11,556	8,390	3,166	819.000.290
2008	1.002.756.496	12,959	10,060	2,899	911.099.851
2009	1.006.372.482	0,361	6,530	-6,169	944.684.579
2010	1.167.664.479	16,027	6,400	9,627	1.097.429.022
2011	1.404.927.615	20,319	10,450	9,869	1.272.003.273
2012	1.581.479.251	12,567	6,160	6,407	1.489.712.934
2013	1.823.427.315	15,299	7,400	7,899	1.697.790.796
2014	2.054.897.828	12,694	8,170	4,524	1.899.692.916
2015	2.350.941.343	14,407	8,810	5,597	2.160.593.092
2016	2.626.559.710	11,724	8,530	3,194	2.420.123.201
2017	3.133.704.267	19,308	11,920	7,388	2.799.950.203
2018	3.758.315.621	19,932	20,300	-0,368	3.124.119.385
2019	4.320.191.227	14,950	11,840	3,110	3.862.831.927
2020	3.751.932.121	-13,154	14,600	-27,754	3.273.937.278
2023	4.432.514.683	18,140	5,000	2,377	3.828.972.839
2029	5.793.679.807	30,709	4,000	4,177	4.578.829.309
2035	7.154.844.930	23,494	2,000	10,878	6.353.297.542
2053	11.238.340.301	57,073	2,000	14,249	7.868.629.321

1. SOCIO-ECONOMIC STATUS

The annual increase in nominal and real GDP and annual increase in GDP per capita for the target years are given in Table 1.4. Monetary value of time and highway tolls are calculated using real per capita GDP growth rates within the model.

The last revised province-based 2000-2025 population and population projections time series published by

TURKSTAT were used for the population variable projections in the table. While the projections for 2023 are taken directly from this series, the linear trend model for some provinces and the quadratic trend model, and ARIMA time series model are used for the province-based projections for 2029, 2035, and 2053.

Table 1.4 Nominal and Real GDP and Growth Values with Inflation Values

Year	Year Range	Population		Nominal Annual Growth		Reel Annual Growth	
		Person	Annually Increase (%)	GDP (%)	GDP/ Person (%)	GDP (%)	GDP/ Person (%)
2023	2019-2023	86.909.387	1,109	0,644	-2,828	-0,220	-1,315
2029	2024-2029	92.542.857	1,052	4,564	4,593	3,026	1,953
2035	2030-2035	98.092.363	0,975	3,580	4,361	5,611	4,590
2053	2036-2053	112.608.772	0,770	2,540	13,136	1,195	0,423

1.3.1 Regional GDP Values

Regional Gross Domestic Product (GDP) is the regional gross value-added by subtracting subsidies and adding taxes. Regional Accounts reveal the transactions of economic units with other resident or non-resident units within an economic zone (TURKSTAT).



Table 1.5 Regional GDP by Economic Activity Lines 2018-2019 at Current Prices (TURKSTAT)

Statistical Zones (Level 2)		Year	GDP
TR	Türkiye	2018 ^(r)	3.758.315.621
		2019	4.320.191.227
TR10	İstanbul	2018 ^(r)	1.157.429.335
		2019	1.327.451.596
TR21	Tekirdağ, Edirne, Kırklareli	2018 ^(r)	97.149.679
		2019	112.613.244
TR22	Balıkesir, Çanakkale	2018 ^(r)	71.940.105
		2019	83.447.663
TR31	İzmir	2018 ^(r)	236.171.683
		2019	263.037.662
TR32	Aydın, Denizli, Muğla	2018 ^(r)	124.398.390
		2019	144.953.006
TR33	Manisa, Afyonkarahisar, Kütahya, Uşak	2018 ^(r)	120.241.893
		2019	137.615.488
TR41	Bursa, Eskişehir, Bilecik	2018 ^(r)	214.123.092
		2019	239.898.080
TR42	Kocaeli, Sakarya, Düzce, Bolu, Yalova	2018 ^(r)	234.443.800
		2019	256.244.478
TR51	Ankara	2018 ^(r)	332.731.921
		2019	395.730.879
TR52	Konya, Karaman	2018 ^(r)	88.800.500
		2019	102.612.779
TR61	Antalya, Isparta, Burdur	2018 ^(r)	149.146.014
		2019	179.405.613
TR62	Adana, Mersin	2018 ^(r)	137.113.505
		2019	161.356.468



1. SOCIO-ECONOMIC STATUS

TR63	Hatay, Kahramanmaraş, Osmaniye	2018 ^(r)	97.175.721
		2019	106.939.208
TR71	Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir	2018 ^(r)	51.255.805
		2019	58.823.161
TR72	Kayseri, Sivas, Yozgat	2018 ^(r)	83.730.309
		2019	96.468.938
TR81	Zonguldak, Karabük, Bartın	2018 ^(r)	37.329.380
		2019	37.941.870
TR82	Kastamonu, Çankırı, Sinop	2018 ^(r)	24.899.398
		2019	29.438.124
TR83	Samsun, Tokat, Çorum, Amasya	2018 ^(r)	78.481.632
		2019	92.114.443
TR90	Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane	2018 ^(r)	79.347.458
		2019	94.957.949
TRA1	Erzurum, Erzincan, Bayburt	2018 ^(r)	31.956.364
		2019	37.099.037
TRA2	Ağrı, Kars, Iğdır, Ardahan	2018 ^(r)	22.180.432
		2019	26.040.930
TRB1	Malatya, Elazığ, Bingöl, Tunceli	2018 ^(r)	47.307.648
		2019	55.217.122
TRB2	Van, Muş, Bitlis, Hakkari	2018 ^(r)	39.377.190
		2019	46.974.216
TRC1	Gaziantep, Adıyaman, Kilis	2018 ^(r)	83.544.421
		2019	95.301.609
TRC2	Şanlıurfa, Diyarbakır	2018 ^(r)	66.385.418
		2019	77.130.976
TRC3	Mardin, Batman, Şırnak, Siirt	2018 ^(r)	51.654.527
		2019	61.376.687

1.3.2 Regional GDP Per Capita Values

Regional GDP Per Capita is the regional gross domestic product at current prices divided by the mid-year regional population estimate. (TURKSTAT)

Table 1.6 Regional GDP Per Capita (TURKSTAT)

Statistical zones units' classification (Level 2)		Per capita GDP (\$)									
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
TR	Türkiye	10.629	11.289	11.675	12.582	12.178	11.085	10.964	10.696	9.792	9.213
TR10	İstanbul	17.326	18.377	19.168	20.883	20.246	18.478	18.232	17.897	16.313	15.285
TR21	Tekirdağ, Edirne, Kırklareli	12.667	13.268	13.435	14.168	13.990	12.622	12.622	12.414	11.541	10.916
TR22	Balıkesir, Çanakkale	10.239	10.547	10.784	10.930	10.764	9.633	9.822	9.418	8.713	8.307
TR31	İzmir	12.318	13.193	13.635	14.450	13.830	12.399	12.536	12.397	11.649	10.663
TR32	Aydın, Denizli, Muğla	9.736	10.290	10.379	10.922	10.770	9.596	9.531	9.193	8.606	8.202
TR33	Manisa, Afyonkarahisar, Kütahya, Uşak	8.843	9.303	9.652	10.134	9.957	9.053	9.169	9.001	8.271	7.792
TR41	Bursa, Eskişehir, Bilecik	12.125	13.069	13.319	14.375	13.759	12.424	12.163	11.964	11.202	10.239
TR42	Kocaeli, Sakarya, Düzce, Bolu, Yalova	13.353	14.625	14.808	15.926	15.557	14.261	13.719	13.757	12.942	11.510
TR51	Ankara	15.558	16.224	16.499	18.362	17.168	15.346	15.602	14.573	12.891	12.508
TR52	Konya, Karaman	7.868	8.593	9.160	9.988	9.759	8.849	8.710	8.454	7.712	7.311
TR61	Antalya, Isparta, Burdur	12.292	12.887	13.090	13.781	13.420	11.805	10.467	10.297	10.203	9.927
TR62	Adana, Mersin	8.129	8.508	8.844	9.350	9.056	8.287	8.359	7.999	7.230	7.005
TR63	Hatay, Kahramanmaraş, Osmaniye	6.601	6.951	6.967	7.614	7.325	6.739	6.847	6.768	6.323	5.697
TR71	Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir	7.576	8.063	8.161	8.654	8.560	7.990	7.695	7.541	6.871	6.450
TR72	Kayseri, Sivas, Yozgat	8.252	8.719	9.020	9.665	9.433	8.547	8.584	8.148	7.281	6.893



1. SOCIO-ECONOMIC STATUS

TR81	Zonguldak, Karabük, Bartın	7.584	8.494	8.311	9.124	9.292	8.042	7.898	8.131	7.607	6.395
TR82	Kastamonu, Çankırı, Sinop	8.287	8.649	8.833	9.127	8.888	8.059	8.066	7.559	6.662	6.428
TR83	Samsun, Tokat, Çorum, Amasya	7.265	7.517	7.756	8.048	7.809	7.325	7.255	6.861	5.949	5.740
TR90	Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane	7.403	7.753	8.124	8.460	8.233	8.030	7.466	7.128	6.288	6.183
TRA1	Erzurum, Erzincan, Bayburt	7.220	7.295	7.831	8.370	7.929	7.105	7.278	7.110	6.280	6.027
TRA2	Ağrı, Kars, Iğdır, Ardahan	4.779	4.951	5.221	5.341	4.908	4.731	4.879	4.744	4.199	4.088
TRB1	Malatya, Elazığ, Bingöl, Tunceli	6.372	6.854	6.988	7.586	7.178	6.569	6.596	6.491	5.753	5.528
TRB2	Van, Muş, Bitlis, Hakkari	4.198	4.421	5.101	4.948	4.749	4.217	4.337	4.251	3.888	3.810
TRC1	Gaziantep, Adıyaman, Kilis	5.924	6.424	6.970	7.819	7.643	7.190	6.998	6.819	6.382	5.958
TRC2	Şanlıurfa, Diyarbakır	4.762	4.956	5.057	5.531	5.102	4.681	4.538	4.356	3.778	3.575
TRC3	Mardin, Batman, Şırnak, Siirt	5.162	5.444	5.627	6.137	5.933	5.211	5.130	5.290	4.862	4.708

1.4 Employment Values

For the employment variable, which is used as an independent variable in the production attraction models, the 2014-2019 time series statistics of "Employed" published by TURKSTAT on a regional basis (at NUTS-2) were used. Although TURKSTAT has published the statistics of people employed on a regional basis for the years 2010-2019, it has stated that the 2014-2019 data are not comparable with the 2010-2013 data due to the new regulations made since 2014. For this reason, the 2014-2019 series was used for estimations. Since the statistics of "employed" are not published on a provincial basis, the estimations on the basis of provinces were obtained in two phases. In the first phase, the estimations were obtained at the NUTS-2 level. In the second stage, the estimations obtained on a regional

basis were distributed according to the proportion of the population in the NUTS-2 zone using the provincial population estimations calculated for the years 2023, 2029, 2035 and 2053.

For NUTS-2 level estimations, since the time series covers a short period of time, making estimations through models does not yield reliable results. Moreover, estimations were calculated through modeling, and this expectation was proven to be correct. For this reason, the average change rates between 2014 and 2019 were calculated with the formulas given in the "forecasting methods background information" section, and the employed statistics were expanded with these annual average increase rates, and projections for 2023, 2029, 2035 and 2053 were obtained.



1.5 Number of Incoming Tourists

The number of tourists entering our country between 2012 and 2020 is given in Table 1.7. While the highest number of tourists was reached in 2019, a rapid decrease was observed in the number of tourists in 2020 due to the pandemic. It is predicted that there will be an increase in the number of tourists, above the old trend, in proportion to the disappearance of the pandemic situation after 2020.

Table 1.7 Number of Incoming Tourists for the Years 2012-2020 (TURKSTAT)

Months	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	36.463.921	39.226.226	41.415.070	41.617.530	31.365.330	38.620.346	45.628.673	51.860.042	15.826.266
January	1.374.401	1.466.128	1.575.399	1.762.004	1.691.287	1.568.344	2.045.341	2.226.288	2.529.423
February	1.209.064	1.415.328	1.523.245	1.564.925	1.517.504	1.432.342	1.806.822	1.944.957	2.051.923
March	1.635.696	1.892.370	1.967.114	2.017.645	1.898.762	1.844.076	2.270.019	2.473.147	1.058.068
April	2.231.943	2.418.962	2.573.139	2.626.663	2.049.238	2.278.538	2.870.569	3.266.256	
May	3.194.547	3.717.734	3.863.883	3.775.013	2.749.648	3.095.282	3.790.524	4.219.837	
June	3.896.971	4.131.081	4.530.079	4.349.675	2.696.149	3.489.572	4.406.894	5.276.253	
July	4.953.266	4.791.585	4.952.404	5.244.965	3.482.544	5.032.488	5.712.975	6.703.045	777.043
August	5.384.021	5.930.881	6.635.627	6.748.708	4.565.837	6.323.888	7.052.433	8.167.150	2.192.917
September	5.099.835	5.335.184	5.495.982	5.415.322	4.014.930	5.306.888	6.021.357	6.741.769	2.634.195
October	3.836.383	4.294.646	4.293.279	4.161.806	3.190.334	3.913.759	4.791.439	5.437.494	2.355.124
November	2.154.009	2.234.267	2.264.373	2.236.998	1.879.625	2.293.847	2.679.420	3.005.517	1.262.757
December	1.493.785	1.598.059	1.740.546	1.713.807	1.629.471	2.041.323	2.180.881	2.398.329	964.816

Due to the coronavirus pandemic (COVID-19), data for the 2nd quarter of 2020 could not be published, since surveys could not be conducted at the border gates.t



1. SOCIO-ECONOMIC STATUS

1.6 Summary of Socio-Economic Situation

The main macroeconomic indicators revealing the socio-economic situation are given below under the headings of Growth, Employment, Inflation, Foreign Trade and Balance of Payments:

Growth

The GDP growth rate for 2021 has been determined as 7,4%.

- While the agriculture sector contracted by 5,9%, the industrial sector grew by 10% and the services sector (including construction) grew by 12,5%.
- GDP adjusted for seasonal and calendar effects increased by 2,7% in the third quarter of the year.
- In the relevant period, while total fixed capital investments decreased by 2,4%, private consumption and public consumption expenditures increased by 9,1% and 9,6%, respectively.
- Construction investments, which are under the total FCI, decreased by 9,6% in the third quarter of 2021, while machinery and equipment investments increased by 17,5%.
- In this period, while the contribution of private consumption to growth was 5,4 points, public consumption contributed 1,2 points to economic growth.

Employment

According to the labor force statistics announced on 10 December 2021, the unemployment rate was realized as 10,7% in October 2021.

- The number of employed people was 30 million 217 thousand, and the employment rate was 47,2%.
- MConsidering the seasonally adjusted data; The employment rate was 46,2%, the workforce was 33 million 297 thousand people, and the labor

force participation rate was 52%. As a result of these developments, the seasonally adjusted unemployment rate was recorded as 11,2%.

Inflation

In November 2021, CPI increased by 3,51%. With the increase in November, annual inflation was realized as 21,31%.

- Prices of Food and Non-Alcoholic Beverages, which increased by 3,92%, became the determinant of November inflation. The group's contribution to inflation was realized as 1,05 points.
- Transportation group prices, which increased by 6,31%, were another of the main determinants of November inflation. The group's contribution to inflation was 0,95 points.
- Housing group prices, which increased by 3,12%, were one of the main determinants of November inflation. The group's contribution to inflation was 0,49 points.
- The biggest impact on annual inflation came from Food and Non-Alcoholic Beverages with 6,90 points, Housing with 3,66 points and Transportation with 3,50 points.
- C index (CPI excluding energy, food, beverages, tobacco, gold) increased by 2,81% in November. Prices of Basic Goods, one of the main sub-items of core inflation, increased by 3,67%, while prices of Services group increased by 1,88%.
- The annual rate of increase in core inflation was 17,62%. Annual price increase in the Basic Goods group was 18,36%, while the annual price increase in the Services group was 16,88%.
- The 12-month average rate of change in core inflation increased by 0,36 points from 16,37% to 16,73%.
- D-PPI increased by 9,99% in November and the annual rate of increase in D-PPI was 54,62%.

- Manufacturing prices increased by 9.55% in November. Accordingly, the annual rate of change was 53,24%.
- Prices of intermediate goods increased by 11,55% in November. Compared to the same month of the previous year, prices of intermediate goods increased by 63,12%.

Foreign Trade and Balance of Payments

In October 2021, exports were recorded at 20,8 billion dollars and imports at 22,2 billion dollars.

- Foreign trade deficit was realized as 1,4 billion dollars in October.
- While exports of motor vehicles decreased by 8,9% in October; energy imports increased by 159,3%.
- The export volume index for September increased by 16,3%, while the import volume index decreased by 9,2%.
- In September, an increase of 11,8% was observed in export prices and 23,4% in import prices.
- The external term of trade decreased by 9,1 points compared to the same month of the previous year and regressed to 88,4.
- As of September, the current account balance gave a surplus of 1,674 million dollars.

- The twelve-month current account deficit stood at \$18,7 billion as of September.

- In September, net capital inflows originating from foreign direct investments, portfolio investments and other investments were realized as 1.085, 1.212 and 376 million dollars, respectively.

1.7 Socio-Economic Evaluation of Alternative Scenarios

Within the scope of socio-economic analysis studies, socio-economic evaluations of all alternative scenarios were made and as a result of the analysis studies, it was determined that the scenario that would provide the highest economic value was the Green (Sustainable) Scenario. Net Present Value (NPV), Internal Rate of Return (IRR) and Benefit/Cost Ratio (BCR) indicators are used in the evaluation. Indicators for all scenarios are given in Table 1.8.

The total cost of each scenario is calculated by estimating fixed costs (investment costs and renewal costs) and operational costs (maintenance and operating costs) during the evaluation period (2019-2053). Benefits are evaluated under two main headings: economic and social benefits of users (change in travel time, vehicle usage costs, accident costs) and environmental benefits (noise reduction, air pollution and greenhouse gas effects).

Table 1.8 Economic Analysis Indicators of Alternative Scenarios

Economic Analysis Indicators / Scenarios	Digital	Export and Mobility Focused	Green (Sustainable)
Net Present Value (M€ 2019)	7.550,17	86.909.387	20.926,51
Internal Rate of Return (IRR)	%24	%14	%36
Benefit Cost Ratio (BCR)	1,82	1,37	3,22



2. VISION AND TARGETS



2. VISION AND TARGETS

The objectives and strategies regarding the vision of the transportation sector are presented in this section. Besides, the vision and targets obtained from the objectives of the development plan and transportation policies and the strategies for Türkiye's transport and logistics sectors have been determined.

Vision, target and strategies created based on the followings;

- 11th Development Plan (2019-2023)
- Medium Term Program (2018-2020)
- Strategy and Action Plans of the Ministry of Transport and Infrastructure
- Other plans such as Climate Change Action Plan, National Tourism Plan
- Public Investment Program
- 12th Transport and Communication Council

2.1 Vision

Türkiye's vision for the Transport and Logistics sector is to construct a transport system that is holistic, efficient, economical, accessible, safe, and sustainable, as well as responding to the needs of society, supporting economic growth, and prioritizing environmental issues. The vision set in this scope is "To be a global leader and a leading country in the zone in transport and logistics that support environment-oriented, cost-effective, safe, balanced interregional, sustainable mobility, multi-modal transportation, production, and export-oriented economic growth." While meeting the needs of users in terms of mobility, this transportation system will connect continents, zones and cities, support the export-oriented transition process and make Türkiye an international center in the fields of transport and logistics.



2.2 Goals and Targets

2.2.1 Goals

The State of the Republic of Türkiye, with its vision of supporting the transport and logistics sectors within the scope of economic growth and holistic development, has determined the following goals and objectives concerning these sectors:

GOAL 1- To carry out the necessary legislative arrangements with transport and logistics infrastructure investments that will support high value-added production and export orientation:

To provide transport and logistics legal regulations and infrastructure arrangements in a way that can generate high added value for production and economic assets that can be directed to production. To develop transport and logistics activities with necessary infrastructure investments; minimizing time losses caused by bureaucracy through legislative arrangements.

GOAL 2- In order to be a pioneer in transport and logistics on a global scale and a leader in its zone, to ensure integrity in transport and logistics, fair access to transport and logistics services, and to increase the quality of transport and logistics infrastructure:

To increase the logistics performance of the country, to ensure international integration, to be a center of attraction in terms of transport and logistics activities, to ensure that the plans and investments for the development of the country are evaluated together with the transport and logistics sectors, and the operation is carried out within the framework of integrity principles during the implementation phase. To continue its integrity under corridor, hinterland, logistics center, port, dry port, etc.

GOAL 3- To ensure efficiency and productivity in transport and logistics, to reduce costs:

To support the necessary investments in order to increase the efficiency of our national and

international transport and logistics activities with a multi-modal corridor approach and cluster-oriented logistics centers that support each other. To reduce logistics costs and increase service/response speed in line with sustainable mobility, to carry out efficient logistics activities on a regional basis.

GOAL 4- To ensure sustainable mobility with smart transportation systems in transport and logistics, to increase human resources competence:

With innovation, competition, Intelligent Transportation Systems, technological development, digitalization, vocational training/merit, to ensure the sustainability of economic competition, to develop human resources competencies in the logistics sector, to reach Industry 4.0 and beyond in sectoral development, scientific, technical, to develop technological services.

GOAL 5- To ensure environmental awareness and increase energy efficiency in transport and logistics:

To protect all natural assets, cultural and historical assets and the environment within the scope of transport and logistics investments and activities; to take measures against climate change, to increase energy efficiency, to act within the framework of international measures taken (EU White Paper, Paris Climate Agreement, European Green Consensus, European Climate Law, etc.); To develop and maintain green transportation and green logistics investments and practices.

GOAL 6- To increase safety in transport and logistics and ensure community welfare:

To increase safety, to increase the quality of life, to take and implement measures to increase resilience, including flexibility in transport and logistics activities, by taking into account public and environmental health in transport and logistics infrastructure, equipment and services. To regulate the security parameters related to integrated transportation systems within the framework of the European Union harmonization process.

2. VISION AND TARGETS

2.2.2 Targets

The targets envisaged in line with the determined objectives are presented below.

GOAL 1- To carry out the necessary legislative arrangements with transport and logistics infrastructure investments that will support high value-added production and export orientation:

Target 1.1: The country will be raised in the world ranking by realizing the investment and necessary legislative arrangements regarding transport and logistics infrastructure.

Target 1.2: To stimulate high value-added production and support exports, the main transport and logistics corridors will be developed and improved, which will facilitate access to new markets.

Target 1.3: Transport and logistics services and infrastructure in all sectors will be strengthened to provide more competitive services, taking into account the needs of different product groups.

Target 1.4: Incentives for Turkish logistics companies to open up to international markets will be increased.

GOAL 2- In order to be a pioneer in transport and logistics on a global scale and a leader in its zone, to ensure integrity in transport and logistics, fair access to transport and logistics services, and to increase the quality of transport and logistics infrastructure:

Target 2.1: It is important to provide a balance between transportation modes by giving priority to rail and sea transportation, to produce solutions with alternatives, to create an integrated transportation system that takes advantage of the strengths of different transportation modes and allows users to switch between modes effectively and cost-effectively and at the same time uninterrupted. Integration of production and attraction centers with the transport and logistics infrastructure network will be ensured at the national level.

Target 2.2: Cooperation with international institutions will be increased and integrity at the international

level will be ensured with a global perspective in transport and logistics.

Target 2.3: Multimodal transport will be developed.

Target 2.4: Governance level will be increased in transport and logistics sectors.

Target 2.5: The quality of the country's transport and logistics services will be increased.

Target 2.6: Investments will be prioritized, projected and appropriate solutions will be created in their financing.

GOAL 3- To ensure efficiency and productivity in transport and logistics, to reduce costs:

Target 3.1: In cooperation with non-governmental organizations representing the sector, maintenance, and repair services of transport and logistics infrastructure, vehicles and equipment will be developed to spread the freight traffic over time by using the flexibility in loading and delivery times and to realize optimizations that will benefit from the logistics infrastructure at the highest level.

Target 3.2: Efficiency and productivity will be increased in transportation.

Target 3.3: Efficiency, productivity and service quality will be increased in logistics centers.

Target 3.4: Cooperation will be made with relevant institutions in order to increase efficiency

and productivity in customs.

Target 3.5: The quality and competency of transport and logistics services will be increased and costs will be reduced.

GOAL 4- To ensure sustainable mobility with smart transportation systems in transport and logistics, to increase human resources competence

Target 4.1: The competence of human resources in the Transport and Logistics sector will be developed and vocational training and merit criteria will be increased.



Target 4.2: Research and development studies in the transport and logistics sector will be supported.

Target 4.3: By increasing the use of information technologies and digitalization in the transport and logistics sector, efficient use of infrastructure and effective tracking and monitoring of shipments will be ensured.

Target 4.4: A special fund will be created to support R&D studies in the transport and logistics sector, and priority will be given to projects that increase the country's added value, reduce environmental problems, and increase safety and security.

Target 4.5: Cooperation will be made with relevant institutions to increase smart and sustainable mobility in urban transport and logistics.

GOAL 5- To ensure environmental awareness and increasing energy efficiency in transport and logistics.

Target 5.1: Renewable energy production and use will be encouraged to increase energy efficiency in the transport and logistics sector.

Target 5.2: By reducing the dependency on oil in transportation, the level of cost-oriented energy efficiency will be increased and the most appropriate balance between modes will be reached in terms of environmental sensitivity.

Target 5.3: The "Polluter Pays" principle will be applied so that the negative effects on the environment are met by those who create this negativity based on fair and transparent criteria.

Target 5.4: In passenger and freight transportation, negative effects on the environment will be reduced by focusing on green terminal/building (airport, sea port, dry port, railway, airline and road terminal) projects and applications and by transforming the existing ones within this scope.

Target 5.5: While developing transportation infrastructure, natural, agricultural, cultural assets and areas will be protected.

GOAL 6- To increase safety in transport and logistics, to ensure community welfare:

Target 6.1: Losses resulting from traffic accidents will be reduced.

Target 6.2: Life and property safety will be ensured at the highest level in transport and logistics activities (transportation, storage, etc.).

Target 6.3: Impact analyzes of realized, ongoing and planned transport and logistics investments will be made.

An aerial photograph of a vast, dense forest, likely a coniferous forest, covering a hilly or mountainous region. The image is overlaid with a semi-transparent blue filter. In the distance, a body of water and some buildings are visible under a clear sky.

3. GENERAL TRANSPORT POLICIES





3. GENERAL TRANSPORT POLICIES



Northern Marmara Motorway

General transportation policies aimed at ensuring the sustainable development of the country, expanding the transportation networks throughout the country, structuring a holistic, efficient, economical, accessible, safe transportation system that responds to the needs of the society, supporting economic growth and giving priority to environmental issues are given in detail below.

3.1 Governance

The development of public-private sector and university cooperation should be supported in order to encourage research and development studies that will enable effective management of human, load and data mobility. Urban transport authority and incorporation models should be developed at the national level, which will regulate the multi-headed dispersed structure of urban passenger and freight transportation. Airports, seaports, railway, metro and bus terminals should be interconnected, and multimodal connecting platforms should be created.

A single point management of the regulation, supervision

and development of all logistics services and different tasks managed by different public authorities in the field of logistics in the country should be provided, so that inter-institutional planning, monitoring and reporting should be carried out. Regional Plans, Spatial Plans and Urban Logistics and Transportation Master Plans should be created in harmony with each other. Provincial environmental plans made within the scope of country, zone and city should be carried out in a way to ensure cooperation/coordination with strategic objectives, national logistics master plan, national transportation master plan, urban transportation plan, urban logistics master plans and city development plans. Cooperation on terminology, education and legal issues should be established with countries on international transport corridors linked to Türkiye.

In order to ensure national cyber security, public institutions and organizations, nongovernmental organizations, local governments, universities and the private sector should work in cooperation. Open data platforms should be developed with access to high-quality data to support data-driven technologies, operations and decision making.

3.2 Financial Management

Financing incentive models should be created to support domestic and national transportation solutions and ensure the widespread use of electric vehicles. In order to ensure the accessibility of individuals with reduced mobility, financial incentive models should be created to cover the accessibility costs (vehicle, infrastructure and facility transformation, etc.) to ensure the accessibility of transportation systems for everyone.

Within the scope of logistics activities, the “polluter pays” principles paid by the polluting elements should be applied for the costs of adverse effects such as air pollution on the environment to society. New financing instruments should be developed that take into account revenues to support infrastructure investments. The establishment of Logistics Centers, primarily on the main transportation corridors, should be supported in line with regional requirements and by carrying out feasibility studies.

3.3 Energy Efficiency and Social Sustainability

Mobility strategies including sustainable, environmentally friendly, efficient, low-emission and non-emission-producing transportation systems (electric vehicles, bicycles, pedestrians, etc.) should be determined and their use should be encouraged at a national, regional and local level. Cities’ features open to development should be identified, and they should be encouraged to develop themselves accordingly by defining urban mobility indexes according to the characteristics of cities (such as geographical situation, population, economic situation, season, income level, vehicle ownership, trip distribution according to types, current state of transportation infrastructure, current state of public transportation systems). Applications such as congestion pricing, low emission zone, park and ride, and public transport corridors should be encouraged at the national level, which will reduce the use of individual vehicles and make public transportation widespread.

A consensus should be reached on the principles of reducing the dependence on oil (traditional fuel

use) in transportation due to the decrease in oil resources and environmental factors, increasing the level of cost-oriented energy efficiency, mobility and efficiency. By modernizing all logistics vehicles and equipment, the average age and emissions of vehicles should be raised to world standards. Eco-innovation practices should be encouraged to develop products, services, processes and systems that use the least natural resources and generate the least waste in logistics activities.

3.4 Human Values and Education

In order to train qualified specialist personnel who will serve in the field of transportation, the departments needed for employment should be expanded by cooperating with universities. Standards should be established in transport and logistics education. National and international accreditations on this subject are supported. The career planning and specialization of the workforce needed in the sector should be supported. The sustainability of training should be ensured in order to increase social awareness for individuals with reduced mobility.

Logistics activities should be carried out by persons within a gradual transition period with professional documents. Occupational standards (job descriptions, employee qualifications, etc.) in the logistics sector should be completed, Professional Competence and Occupational Standards (job descriptions, employee qualifications, etc.) should be regulated by considering the sectoral requirements and the conditions for the graduates of logistics programs to qualify for the professional documents and coordination between the relevant ministries and institutions should be ensured.

The National ITS Strategy Document should be supported by training programs in the aforementioned areas, cooperation should be developed with the relevant ministries, national/international organizations, and sector stakeholders, and importance should be given to training, certification, working conditions and career development. It should be ensured that good practices are disseminated and supported to ensure the security of national cyber security, transportation and communication systems, and useful practices are shared.



3. GENERAL TRANSPORT POLICIES

3.5 Quality and Efficiency

Increasing passenger satisfaction should be supported by measuring service quality and making necessary improvements in each type of transportation that provides passenger transportation services. In order to effectively manage human mobility in transportation services, standards that will improve service quality should be established and expanded. Measures should be taken to reduce individual vehicle use (walking and bicycle paths, car sharing, park and drive, smart ticketing, etc.).

Institutionalization and professionalization should be supported in order to increase the environment of trust in the sector. Certification and accreditation of logistics companies should be provided. It should be ensured that the activities are carried out according to the “Logistics System Standards”, which include all legal rules and ethical values and service quality parameters for logistics activities, and which aim to increase the sustainability and institutionalization of the companies, and that the logistics activities are carried out by companies with the necessary certification.

3.6 Safety and Security

It should be aimed to reduce the accidents caused by people, infrastructure and equipment to zero, and the data should be transparently shared with the public by prioritizing the signaling and electrification works in rail systems. Studies that will increase travel safety should be maintained using technological solutions, autonomous drive, smart roads, flexible, energy-absorbing guardrails etc. Studies should be carried out to develop the national public transport safety master plan.

International cooperation in the fight against terrorism and other criminal activities such as piracy should be increased and continued. Rules for multimodal transport of hazardous material should be continuously improved to ensure interoperability between different modes. Studies should be carried out and necessary precautions should be taken to

ensure the confidentiality, integrity and accessibility of all kinds of services, transactions and information provided regarding information technologies and the systems used in their processing, storage and presentation.

3.7 Technology, Innovation and Digitization

In order to ensure sustainable smart mobility, research and development studies should be encouraged and the production of domestic and national mobility solutions should be ensured. Within the scope of integrated and smart mobility, the use of personalized userfriendly applications that will increase efficiency, speed, quality and flexibility should be generalized. In order to analyze passenger mobility at the national level, the necessary digital database should be established and kept up to date. A digital national inspection system infrastructure should be established that will facilitate the inspection of transportation services and ensure effective inspection. Domestic research and innovation partnerships should be established to find common answers to the challenges of transportation management systems interoperability, sustainable low-carbon fuels, safety and security. The inspection mechanism for the implementation of the legislation in passenger transport should be activated. It should be ensured that penal sanctions are applied in a correct, just and deterrent manner.

The establishment of “Logistics Centers of Excellence/Research Centers/Institutes/Logistics Valleys/Parks” and “Training Academies” for the development of logistics activities should be carried out in cooperation with the public and private sectors. Cooperation between research institutions, development agencies, local governments, universities and techno parks should be increased in logistics sector projects and investment studies. Initiatives towards “zero-emission urban logistics” that take into account effective spatial planning, easy access to railways and seaways, logistics operation processes, charging and vehicle technology standards should be supported.

National Transportation Database (NTD) infrastructure should be established to make fast and economic analyzes in planning, monitoring and evaluation processes. Suggestions should be made for making the data to be collected through communication and digitalization useful for other sectors and the use of this data by the stakeholders. E-state applications related to transportation and communication should be expanded.

3.8 Legislation

Passenger transport legislation, which is regulated in different legislations and serves the same purpose, should be combined in single transport legislation to ensure uniformity in practice. Harmonization and legislation studies of scooters, electric, autonomous, flying vehicles and other new-generation mobility systems should be carried out and kept up-to-date. A participatory legislative regulation system infrastructure should be established for the regulations to be made by the local administrations in the field of transportation to coordinate with the national regulations.

Compliance with international agreements and rules should be accelerated, and necessary activities should be carried out to ensure full compliance with the International Transport Conventions in domestic transportation and to inspect them. Legislation and regulations regarding the establishment and operation principles of logistics clusters and centers should be handled in a multi-faceted manner and should be carried out in coordination with the relevant Ministries. For the effective and efficient management of urban freight flows, implementation guides should be prepared on urban transfer centers, vehicle size, route and time restrictions and integration with national and international freight flows.

International regulations and standards should be considered in the development of national legislation on cyber security. Arrangements for disseminating high-speed and quality, fixed and mobile broadband communication and satellite infrastructures throughout our country should be reviewed and necessary updates should be made.





4. HIGHWAYS AND ROAD TRANSPORT





4. HIGHWAYS AND ROAD TRANSPORT

There are two main policies to increase the welfare of the country, achieve the goals in the development plans and eliminate and improve the problems experienced on the highways.

4.1 Road Network Development Policy

According to the Transport and Logistics Master Plan and the road sector group of the 12th Transport and Communication Council, alongside infrastructure investments are economic activities in themselves, but also have a close relationship with all other sectors and directly affect these sectors. All sectors, especially the automotive, petroleum, logistics, transportation and construction sectors, carry out their activities depending on the service level of the highway infrastructure. Therefore, the efficiency and productivity of the transportation sector will increase by increasing the efficiency and productivity of highways. On the other hand, when passenger and freight movements are analyzed separately, it is seen that road transport is relatively more dominant than other transport modes in both. Considering the parameters such as transport distance, load/passenger size and speed, it is seen that while greater efficiency and benefit can be obtained from other modes, especially under certain conditions, the road is still preferred and economic, environmental and social problems may increase along with it.

The findings made in this context are as follows:

The necessity to increase motorway density according to the IRF 2020 Highway Statistics prepared based on 2003-2018 data, it is concluded that the total road network density in our country (excluding urban and rural roads) is 0,32 km/km², below the level of developed countries. However, in these statistics, it is not known which roads are considered when calculating the road network density in other countries.

The motorway density in our country is 4,5 km/1.000 km². It is seen that this value is below the level of developed countries (per 1.000 km²; Japan -24,25 km; South Korea -48,83 km; Germany -37,54 km; Spain -34,56 km; France -22,62 km). It is considered as a

realistic solution to increase the motorway density to 10 km/1.000 km² by implementing the 2021-2023 and 2023-2035 period motorway projects to increase the motorway density of our country as a fast and safe transportation infrastructure.

As the targets for 2023, it is planned to bid for 6 motorway projects with the BOT model. The motorway network is expected to reach 3.779 km by the end of 2023 with the completion of the motorway projects under construction and the motorway projects planned to be tendered in the 2021-2023 period. With the opening of the motorway projects planned for the 2023-2053 period to traffic, the motorway network is aimed to reach 8.325 km by the end of 2053.

In order to ensure the continuity of infrastructure investments, it is important to investigate the applicability of alternative financial resources in the country such as allocating a share from the fuel tax, congestion tax and shadow pricing in the country, apart from the general budget resources.

The reasons that delay the completion and commissioning of the mentioned projects and the expected benefits are high project stock in the 2021 investment program (1.228 projects) and decreasing share of highway investments from the national budget from 1% to 0,6-0,7% every year.

According to the Transport and Logistics Master Plan, it is foreseen to construct 5.839 km of new motorways in the country by 2053. In addition to the motorways, a total of 13.951 km of road widening and 795 km of new divided road projects are planned.

New motorway projects: 312 km of the 5.839 km motorway to be built until 2053; Malkara – Çanakkale Motorway (including Çanakkale Bridge), the Northern Marmara Motorway Akyazı Section, the Northern Marmara Motorway Kinalı – Çatalca Connection and the Northern Marmara Motorway Cebeci Tunnel, the construction of which has been completed. The 5.527 km long motorway projects, which are under construction, at the tender stage, to be tendered as of 2023 and planned to be constructed, are given in Table 4.1.

Table 4.1 Planned Motorway Projects (2023 – 2053)

Project Name	Planned Period
Ankara - Kırıkkale - Delice Motorway	2024-2029
Ankara - Sivrihisar Motorway	2024-2029
Antalya - Alanya Motorway	2024-2029
Aydın - Denizli Motorway	2024-2029
Sapanca - Afyonkarahisar Motorway	2024-2029
Mersin-Erdemli-Silifke-Taşucu Motorway (Çeşmeli-Kızkalesi Section)	2024-2029
Dörtüyl Hassa Motorway	2024-2029
Kınalı - Tekirdağ - Çanakkale - Savaştepe Motorway (Malkara-KINALI Section)	2024-2029
Kuzey Marmara Motorway Nakkaş - Başakşehir Section	2024-2029
Samsun- Mersin Motorway	2024-2029
Trabzon - Habur Motorway	2030-2035
Afyon-Burdur Motorway	2030-2035
Alanya-Silifke Motorway	2030-2035
Delice - Samsun Motorway	2030-2035
Ankara-İzmir Motorway (Sivrihisar-İzmir Section)	2030-2035
Bozüyük-Afyonkarahisar Motorway	2030-2035
Çeşmeli-Erdemli-Silifke-Taşucu Motorway (Kızkalesi-Taşucu Section)	2030-2035
Denizli-Burdur-Antalya Motorway	2030-2035
Gerede-Merzifon-Gürbulak Motorway	2030-2035
Kınalı-Tekirdağ-Çanakkale-Savaştepe Motorway - Çanakkale -Savaştepe Section	2030-2035
Sivrihisar-Bursa Motorway	2030-2035
Şanlıurfa-Habur Motorway (With Diyarbakır connection)	2030-2035

4. HIGHWAYS AND ROAD TRANSPORT

Road Widening Projects: Some of the road widening works to be carried out until 2053 are still ongoing projects. A total of 13.951 km of road expansion is planned, including 4.640 km by 2023, 8.967 km by 2029, 232 km by 2035 and 112 km by 2053.

New Divided Road Projects: Ring roads constitute a large part of the divided road projects (excluding the

motorway) planned to be built until 2053. 180 km of these projects are expected to be completed by 2023, 396 km by 2029, 130 km by 2035 and 90 km by 2053. New divided highway projects with a total length of 795 km are given in Table 4.2.

Table 4.2 Planned Divided Road Projects

Project Name	Planned Period
Akhisar Ring Road	2019-2023
Amasya Ring Road	2019-2023
Antalya Ring Roads	2019-2023
Bergama Ring Road	2019-2023
Beyşehir Ring Road	2019-2023
Çivril Ring Road	2019-2023
Hayrabolu Ring Road	2019-2023
Karaman Ring Road	2019-2023
Malazgirt Ring Road	2019-2023
Van Ring Road	2019-2023
Adana South Ring Road	2024-2029
Afyonkarahisar South Ring Road	2024-2029
Balıkesir East Ring Road	2024-2029
Kahramanmaraş Ring Road	2024-2029
The İstanbul Canal Connection Roads	2024-2029
Kayseri South Ring Road	2024-2029
Lüleburgaz Ring Road	2024-2029

Midyat Ring Road	2024-2029
Tokat Ring Road	2024-2029
Uşak Ring Road	2024-2029
Kırşehir Ring Road	2024-2029
Konya Ring Road	2024-2029
Bolu South Ring Road	2024-2029
Isparta East Ring Road	2030-2035
Malatya North Ring Road	2030-2035
Manisa South Ring Road	2030-2035
Ordu Giresun South Road	2030-2035
Aydın North Ring Road	2036-2053
Denizli Ring Road	2036-2053
Dinar North Ring Road	2036-2053
Düzce West Ring Road	2036-2053
Muğla North Ring Road	2036-2053

The highway construction works, which are planned to be completed by 2053, are summarized in Table 4.3 according to the years and their lengths.

Table 4.3 Highway Construction Works by Years

	Total	2019-2023	2024-2029	2030-2035	2036-2053
New Motorways	5.839	312	1.760	3.767	
Widened Roads	13.951	4.640	8.967	232	112
New Divided Roads	795	180	396	130	90



4. HIGHWAYS AND ROAD TRANSPORT

4.2 Passenger and Freight Transportation Services Development Policy

It is aimed to minimize the traffic congestion, greenhouse gas emissions and noise pollution that are expected to occur due to increased vehicle and automobile ownership and passenger and freight mobility and to reduce them to minimum levels within the framework of agreements on climate change, including our country. As of the end of 2019, it is seen that there are 234.1 million vehicles in total in our country, and 12.41 million (54%) of these vehicles are automobiles (Ulaşan ve Erişen Türkiye 2019). Future projections made within the scope of Transport and Logistics Master Plan studies show that these figures increase for each projection year.

In developed countries, the average number of vehicles per 1.000 people is 700 and the average number of automobiles is 550. According to the end of 2020 data; The number of vehicles per 1.000 people in the country is 278 and the number of automobiles per 1.000 people is 150. It is estimated that these values will reach 310 vehicles/1.000 persons and 170 automobiles/1.000

persons in 2023, and 390 vehicles/1.000 persons and 215 automobiles/1.000 persons in 2035. It is seen that the most preferred mode of transportation in passenger and freight transportation in our country is a road. As of 2019, it has been determined that 89,9% of domestic passenger transportation and 89,2% of freight transportation are done by road.

In 2019, freight transportation on the KGM road network reached 267 billion tons-km, passenger transportation reached 339 billion passenger-km, and total road use reached 135 billion vehicle-km. Between 2003 and 2019, the average annual vehicle-km value increased by 5%, the ton-km value increased by 4,2%, and the passenger-km value increased by 2,7%. Between 2003 and 2019, the vehicle-km value increased by 160%, the ton-km value increased by 76%, and the passenger-km value increased by 107%.

In order to minimize the traffic congestion, greenhouse gas emissions and noise pollution that are expected to occur due to increased vehicle and automobile ownership and passenger and freight mobility in the 2003-2020 period:

- It is necessary to continue the physical and geometric standard improvement work on a single road with an annual average length of 800 km,
- With the continuation of the construction of divided roads, including the motorways planned to be built with the BOT model, the current 28.195 km divided road network (41% of the total road network) will increase to 28.206 km (43% of the total road network) in 2023 and will increase to 38.000 km (50% of the Total Road network) in 2035. By this way, preventing the decrease in operating speeds and service levels caused by occupancy and density increases,
- Conversion of road pavements from ST to HBM, especially on routes with heavy vehicle traffic due to high transportation rates by road, in this context, the road length of 27.853 km with HBM (41% of the total road network) will be increased to 31.500 km in 2023 (46% of the Total Road network) and 46.000 km (67% of the Total Road network) in 2035,
- Continuing the construction of engineering structures such as bridges, technological bridges, viaducts and tunnels in order to reduce travel times especially on the north-south axes, increasing the bridge length to 800 km and the tunnel length to 650 km by the end of 2023,
- It is important to continue the construction of the ring roads in order to separate the urban and transit traffic in order to minimize the delays in the city transitions,
- It is necessary to take measures to develop multimodal transport,
- It is necessary to carry out studies to become a logistics center with high mobility at the global level with a digitized multimodal integrated transportation infrastructure,

- Instead of fossil fuel vehicle technologies, environmental solutions (hydrogen, electricity) should be disseminated, and electric highway applications should be investigated,
- Depending on the noise measurements and the noise maps to be prepared, noise reduction measures should be implemented in the priority highway sections,
- It is important to work on highway infrastructure, coating, marking, communication and interaction systems that autonomous vehicle technologies will need,
- Effective use of the capacity of the existing road network, reducing time and fuel consumption by minimizing delays, necessary intersection (MR, GSJ...) and signalization arrangements (full and semi-actuated) to prevent accidents at intersections and reduce carbon emissions, intelligent transportation systems, will be beneficial to make maximum use of information technologies and artificial intelligence applications.
- Improvements should be made in road geometric standards in areas where the level of service needs to be improved,
- It is evaluated that the use of rigid pavements on the right lanes and the widespread use of hybrid pavements can provide significant benefits in keeping the rut settlements at the lowest level on routes with high heavy vehicle traffic density.

In order to minimize the death, injury and material damage in the intercity road network and to increase the level of traffic safety;

- For a “safe highway system”, the highway infrastructure should be “forgiving” to the human factor, which is considered to be prone to error and to reduce the severity of accidents, it is necessary to focus on “safe roads and roadsides, safe speed limits, safe vehicles, safe road users.” In this context, the important points are:

- i. Strong highway safety management: The presence of a leading agency and the development of effective highway safety goals and strategy are deemed necessary
- ii. Safe roads and roadsides: Investments are needed to improve road inspection, star ratings and roads cost-effectively
- iii. Safe speed limits: It is necessary to implement speed limits and establish a road infrastructure that supports compliance with these speeds.
- iv. Safe vehicles: Vehicle registration, standards and regulations must be implemented effectively.
- v. Safe road users: The relevant legislation should be implemented effectively and public service announcements should be used for educational purposes to popularize the use of seat belts and helmets and prevent the use of drunk driving.





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vi. Post-accident medical response: Access to medical care and health insurance should be increased.

- Although it is a complex and long study, functional classification of the road network, establishing self-expressive/forgiving road standards, monitoring the classification and standards created by pilot studies to be carried out in different city centers and intercity roads, and spreading the positive examples to the whole country is considered important.

- Accident Black Spot and high potential accident points should be eliminated with marking, project and construction works every year.

- The number of control stations and pre-warning systems should be increased and disseminated in order to ensure traffic safety, to provide economic service for the highway during its planned service life, and to minimize the damage caused by overloaded vehicles to the highway. Preliminary notice installation process at Highways Control Stations will be started as of 2021, and it is aimed to establish a pre-notice system at 10 stations each year within the scope of appropriations. In this way, heavy tonnage vehicles will be controlled without the need to enter the stations, thus saving time and labor.

- More effective inspection and Electronic Control Systems (ECS) need to be disseminated.

Dissemination of Information and Communication Technologies and Decision Support Systems is presented to citizens and external stakeholders, with content management and updated web portal (www.kgm.gov.tr) within KGM. This information includes route analysis, road condition, special freight pass permit, announcements of important services, highway tolls

and transit violation inquiries, maps and corporate information.

With Corporate Information Automation Systems, information management systems such as projects, machinery, workshops, unit prices and analyzes, transportation costs, settling the tenders, budget management, and human resources are used.

With the Image-Based Information Management System developed using the Geographical Information System infrastructure, sensitive image, point cloud and coordinated road and road inventory data can be obtained, thus providing effective asset management.

With the Geographical Based Project Management System, the physical and monetary realizations of investments are followed and an effective investment management system is provided.

Development of Information and Decision Support System Based on Big Data was started for Traffic Safety Management. With the project, an integrated big data framework will be created for road safety analysis, road safety rating, evaluation and management by using data fusion and big data-based methods in order to eliminate the disruptions in road accidents and accident sub-mechanisms. Road safety analyzes will be developed that also address factors such as historical accident data, traffic characteristics, seasonal and climatic conditions, road conditions, road infrastructure, and all road users, including vulnerable road users (pedestrians, cyclists, motorcyclists, etc.).

It is planned to integrate BIM&GIS (Building Information Modelling & Geographic Information System) in the Spatial Data Archive Management System, where approximately one hundred thousand map sheets are managed.

Detection and maintenance management of large structures such as bridges are planned to be carried out by drones equipped with oblique cameras and sensors. Thus, a 3D model will be

produced, maintenance costs will be reduced and more detailed information about the assets will be obtained.

Freight Transportation and Heavy Lifting Project logistics, businesses that carry out heavy transportation and lifting operations are rapidly taking their place in the economy as a growing industry. In addition, this sector has become the main component



of many industries, especially construction. Therefore, it is very difficult for these industries to continue their activities without the heavy lifting and transportation sector. At the same time, the trends regarding heavy transportation in Türkiye are similar at the international level. Therefore, the demand for project logistics and transportation in international transportation is increasing day by day.

The freight transportation sector in the world is defined as special logistics activities. The main reason for this is that it is structurally different from general logistics operations and needs to be carried out with engineering and expertise support.

Besides the means of transport, the operations are completely different and almost every operation requires different lifting operations. In this aspect, project transportation can be defined as an operation in which technical applications are concentrated.



5. RAILWAYS AND RAILWAY TRANSPORT



5. RAILWAYS AND RAILWAY TRANSPORT



TCDD High Speed Train

There are two main policies in order to increase the welfare of the country; to be a regional leader in logistics, to eliminate and improve the problems experienced in railways.

5.1 Railway Network Development Policy

According to the Transport and Logistics Master Plan, it is planned to construct a total of 8.554 km of railway lines, including 6.425 km of rapid rail lines, 1.474 km of conventional rail lines, 393 km of high-speed rail lines and 262 km of very high-speed rail lines, until 2053. It is envisaged that 1.105 km of these lines will be completed by 2023, 3.587 km will be completed between 2024 and 2029, 3.112 km will be completed between 2030 and 2035 and 750 km will be completed between 2036 and 2053. In addition, in order to use the railways more effectively in freight transport, the 1.179 km line between Kapıkule - Ankara - Mersin between 2024 - 2029, and the 1.097 km line between Ankara - Zengazur (Azerbaijan) between 2030 - 2035, in order to be suitable for RO - LA transportation is planned.

Very High-Speed Rail Line: The very high-speed rail line, which can reach 400 km per hour between Ankara and Istanbul, is 262 km long between Sincan and

Köseköy. The line is planned to be built by 2029.

High Speed Rail Line: In addition to the existing high-speed train routes, it is planned to construct a 393 km high-speed rail line between Ankara and Sivas. The route specified in Table 5.1 is planned to be constructed by 2023.

Table 5.1 High Speed Rail Line

Project Name	Planned Period
Ankara - Sivas HSR	2019-2023

Rapid Rail Line: Rapid rail lines, which are one of the steps taken to increase the share of railways in passenger and freight transportation in our country, are planned to become widespread by 2053. It is foreseen that the total length of the rapid rail line will be 6.425 km and 592 km of the new rail rapid line will be completed by 2023, 2.961 km will be completed in 2024-2029, 2.122 km will be completed in 2030-2035 and 750 km will be completed in 2036-2053. Rapid rail lines under construction and planned to be constructed are given in Table 5.2.

Table 5.2 Rapid Rail Lines

Project Name	Planned Period	Project Name	Planned Period
İzmir-Ankara RR (Ankara -Afyon Section)	2019-2023	Sivas-Çetinkaya RR	2024-2029
Bursa-Osmaneli RR	2019-2023	Aksaray-Konya RR	2024-2029
Halkalı-Kapıkule RR (Kapıkule-Çerkezköy Section)	2019-2023	Halkalı-Kapıkule RR (Çerkezköy-Halkalı Section)	2024-2029
Konya-Karaman RR	2019-2023	Gaziantep-Şanlıurfa RR	2024-2029
Adana-İncirlik-Toprakkale RR	2019-2023	Afyon-Burdur RR	2030-2035
İzmir-Ankara RR (İzmir - Afyon Section)	2024-2029	Burdur-Antalya RR	2030-2035
3.Airport-Çatalca RR	2024-2029	Kayseri-Aksaray RR	2030-2035
Adapazarı-Gebze-YSS-Halkalı RR	2024-2029	Çorum-Merzifon RR	2030-2035
Karaman-Ulukışla RR	2024-2029	Merzifon-Samsun RR	2030-2035
Toprakkale-Bahçe-Nurdağ-Başpınar RR	2024-2029	Delice-Kırşehir RR	2030-2035
Aksaray-Ulukışla RR	2024-2029	Kırşehir-Aksaray RR	2030-2035
Ulukışla-Yenice RR	2024-2029	Aksaray-Şereflikoçhisar RR	2030-2035
Bandırma-Bursa RR	2024-2029	Nurdağ-Kahramanmaraş RR	2030-2035
Adana-Mersin RR	2024-2029	Şanlıurfa-Mardin RR	2030-2035
Sivas-Erzincan RR	2024-2029	Erzincan-Erzurum RR	2030-2035
Yerköy-Kayseri RR	2024-2029	Erzurum-Kars RR	2030-2035
Bursa-Gemlik RR	2024-2029	Malatya-Elazığ RR	2030-2035
Mürşitpınar-Şanlıurfa RR	2024-2029	Elazığ-Diyarbakır RR	2030-2035
Aliağa-Çandarlı-Bergama RR	2024-2029	Kars-Dilucu RR	2030-2035
Selçuk-Ortaklar-Aydın RR	2024-2029	Nusaybin-Cizre-Silopi-Habur RR	2036-2053
Aydın-Denizli RR	2024-2029	Siirt-Kurtalan RR	2036-2053
Çetinkaya-Malatya RR	2024-2029	Adıyaman-Gölbaşı-Kahta RR	2036-2053
Konya-Seydişehir-Antalya RR	2024-2029	Erzurum-Rize RR	2036-2053
Delice-Çorum RR	2024-2029	Erzincan-Trabzon RR	2036-2053
Bandırma-Balıkesir	2024-2029	Tokat-Turhal RR	2036-2053
Balıkesir-Bergama	2024-2029		

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Conventional Rail Lines: In addition to the existing conventional rail lines of our country, a total of 1.474 km of conventional rail lines are planned to be built until 2053. It is envisaged that 120 km of these lines will be completed by 2023, 484 km will be completed in 2024-2029 and 870 km will be completed in 2030-2035. Conventional rail lines under construction and planned to be constructed are given in Table 5.3.

Table 5.3 Conventional Lines

Project Name	Planned Period
Akçagöze-Başpınar Conventional Line	2019-2023
Köseköy-Gebze Conventional Line	2019-2023
Diyarbakır-Mazıdağı Conventional Line	2019-2023
Sincan-Yenikent-Kazan-Soda Conventional Line	2019-2023
Ödemiş-Kiraz Conventional Line	2024-2029
Rail connection to mines Phase 1	2024-2029
Rail connection to OIZ Phase 1	2024-2029
Rail connection to factory Phase 1	2024-2029
Rail connection to ports	2024-2029
Rail connection to mines Phase 2	2030-2035
Rail connection to OIZ Phase 2	2030-2035
Rail connection to factory Phase 2	2030-2035
Rail connection to ports	2030-2035

The railway construction works planned to be completed by 2053 are summarized in Table 5.4 according to the years and their lengths

Table 5.4 Railway Constructions by Years

Project Name	Total	2019-2023	2024-2029	2030-2035	2036-2053
Rapid Lines	6.425	592	2.941	2.122	750
Conventional Lines	1.474	120	484	870	0
High – Speed Lines	393	393	0	0	0
Very High – Speed Lines	262	0	262	0	0

5.2 Railways Passenger and Freight Services Development Policy

Fields of activity for the development of railway passenger and freight transport services;

- Passenger and freight transportation
- Energy efficiency and environmental awareness
- Safety and security
- Technology and digitalization.

5.2.1 Passenger and Freight Transportation

Overall, modes of transport will retain their relative share in the absence of significant policy changes, with road transport maintaining its dominant role in both passenger and freight transport in Türkiye. Highway vehicles will hold the majority of the total passenger transport in 2023. In parallel with this, traffic congestion will seriously affect the country's road transport in the future if effective and balancing measures such as road pricing are not available. While the traffic congestion experienced in big cities mainly depends on the rate of private vehicle ownership, unplanned urbanization and availability of public transportation alternatives, intercity traffic congestion will result from increasing road freight activity, using specific corridors and passing through urban areas with heavy local traffic. The main solution to such problems that may be experienced is undoubtedly disseminating rail system networks and increasing their usage rates.

Corresponding with rail passenger transport, the development of high-speed rail lines is key to attracting some of the medium-haul journeys currently being made by airlines and private vehicles. From this point of view, it is a correct development to build high-speed rail lines centered in Ankara and connect big cities over the

concept of a "core network". As a result of the statistical evaluations made after the Ankara-Eskişehir high-speed train operation, which was put into operation at the beginning of 2009, the increase in the share of the railway from 8% to 72% confirms this claim. On the other hand, especially in countries such as Spain, France, Italy and Germany where high-speed rail lines are put into operation, high-speed trains provide a significant advantage in competition with airways and highways; It is known that it has a share varying between 45% and 85% in passenger transportation between major cities.

High-speed rail lines require high-standard infrastructure. This means it will be built at a higher cost than the conventional rail line. The very high initial investment costs make this transportation alternative an expensive option. For this reason, issues such as saving time, reducing traffic congestion and reducing environmental costs, land use are related to the transportation policies of the countries.

Sustainability of safe, punctual and comfortable high-speed train operation brings with it high operating costs. For this reason, it is clear that the feasibility studies to be carried out in the process of determining the routes where the high-speed train operation will be carried out should be conducted in accordance with the objective evaluation criteria. From this point of view, high-speed train operation is carried out only in the section defined as the "core network" among the high-speed railway lines that are under construction and targeted to be constructed in line with the 2023 vision; In other line segments, it should be considered that freight transport should be carried out together with high standard passenger transport.

With the aim of improving passenger transportation on conventional lines, it should be ensured that the average delay times per trip of mainline and regional trains operating on some line sections should be reduced. Transition to a unilateral goodwill practice should be ensured in order to increase the service quality and reduce the delay times; Certain sanctions should be started within the concept of "passenger



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Varda Bridge / Toros Express

rights” for journeys where the prescribed delay times are exceeded. This practice will pave the way for more planned management and infrastructure works and be the starting point of a “customer-oriented” approach. At the same time, investments in modernization, signalization and electrification of existing lines should be continued in order to reduce delay times.

On the other hand, there is a need to switch to electric/diesel train set in long and medium distance main lines from long-distance (from cities) passengers with pullman and couchette wagons. In this way, cost reduction and more efficient transportation should be ensured by using locomotives in freight transportation rather than passenger transportation. As the general principle of transportation, it is necessary to evaluate

the journey as a whole, including the transfer and access times, and the projects should be prepared in line with this perspective. For this reason, especially in metropolitan cities, the connection of high-speed rail lines with airports, intercity and urban transportation systems should be ensured to provide continuity in the journey.

It is unthinkable outside of today’s transport perspective that necessary measures should be taken for the further integration of different types of passenger transport to ensure seamless, accessible, door-to-door travel. Therefore, in urban transport, where different modes of transport are widely used, investment in railways, light rail systems, metro and trams will be required to reduce the use of private vehicles. Conditions should

be created to encourage the development and use of smart systems related to passenger information, online reservation systems and smart tickets, to provide users reach to travel and real-time traffic information.

It is known that there is an annual average transportation value of 75 billion USD between Asia and Europe, which can be defined as production and consumption centers. The efforts of countries to get a share of this transportation value lead them to different pursuits. For example, Central Asian countries are trying to open up to the world through the Black Sea, passing through the Caspian and Caucasus regions. European countries, on the other hand, have sought alternative routes that will allow safe, fast and cheap transportation to reach Asian markets. As one of the alternatives in the east-west corridor stretching from Europe to China and the Far East, it has been the transit stop of historical corridors for centuries, the importance of Türkiye, which is currently located on the Middle Corridor and the South Corridor, in international freight transportation has re-emerged.

Türkiye plays an important role in international trade and transportation as it is a transit country and a place of origin and destination of freight. For the transportation sector, the reflection of its importance due to its geographical location to the development of the country depends on its ability to meet the infrastructure requirements on the transit networks and the establishment of a strong integration between all transportation modes. At the same time, more attention will need to be given to railway projects that shorten international lines and eliminate existing bottlenecks. The time to be wasted on this issue may lead to the adoption of alternative routes and leaving Türkiye out of the Euro-Asian transit transport, which has a huge potential.

As a result of the new approaches and different perspectives that have emerged since 2003, many projects have been implemented and targets have been set to increase the efficiency of the railway sector in the transportation sector. In particular, the renewal of the tractive stock and hauled stock fleet, the provision

of port and junction line connections, road renewals, signalization and electrification investments. However, investments by themselves are not enough to reach the targets set for railways. Railways need a new understanding and structuring that requires global competition.

Developing a traceable transportation approach that meets the demands of users and can use time effectively will support investments in reaching the determined targets. At the same time, it is an important issue to implement some restrictions and fees for road vehicles, considering their environmental impact, in order to realize a certain amount of freight transfer from the road-based system to the rail and rail-connected multi-modal transport sector.

On the other hand, although 90% of the existing railway network is a single line, the railway network carries a relatively light traffic load. The traffic load per line kilometer is 40% less than the EU 27 average and less than a third of Germany's. These rates also mean that the line is sufficient for most of the network to carry existing traffic and more. There are some capacity bottlenecks in the network. These can be addressed through lower cost infrastructure projects such as better train schedule (cheapest solution), combinations of signaling and dual-tracking, extension of station tracks and siding, and increase train operating capacity on a given transport route. To achieve a substantial increase in rail transport market share, railroads need to attract more business than they were able to do in previous years. To achieve this, it is necessary to focus on commercial management, competitive cost structure and currently missing markets and customers. An important element of efficient transportation is the consolidation of large loads transported over long distances at the points of origin and destination. Rail transport is particularly suitable for this, as can be seen all over the world. Corridors to be created along these long distances can offer attractive opportunities to operators due to their reliability, speed, low operating and administrative costs. It should also be considered that corridors in the form of "load-allocated or load-priority lines" should be created throughout the country in order to carry out an



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effective rail freight transport. These corridors should represent the backbone of the national market for freight transport. In the freight corridors to be created, it will be possible to raise the infrastructure standards and make coordinated investments in line with the demand forecasts.

In order to synchronize investments and infrastructure works, plans should be made in the context of “load-allocated or load-priority line”, taking into account other modes of transportation. Efficient, innovative and multimodal transport services should be supported, including medium and long-distance rail services.

These should connect major city centers and ports. Alongside regular services on rail and sea, traffic management systems should be integrated into highway transport supported by alternative fuels and multimodal logistics centers. At the same time, solutions covering all modes of transport should be developed to simplify administrative procedures and track and monitor cargo along corridors. This approach should focus on the relative reduction of administrative burdens associated with multimodal freight transport. It should ensure that the cargo transportation procedures are carried out electronically and only once, regardless of the number of transfers.

Consequently, especially long-distance freight traffic should be kept as separate as possible from the interference of local daily traffic. Within the scope of logistics center planning, taking the loads out of the cities for the purpose of collection and distribution, and separating the existing lines for urban passenger transportation is another important issue that should be included in the list of priorities for investments. Planning freight transportation from a single center and covering at least one-year periods, including infrastructure maintenance and repair, will enable all units to prepare within these plans. Within these plans, safe transportation with the foreseen delay times and mutual sharing of the damage caused by the contrary situations will enable the transition to a “customer-oriented” system in freight transportation. On the other hand, in order to develop freight transportation,

customer-specific tariff systems should be developed based on transportation time, load amount and distance rather than the mode of transportation, within the understanding of a flexible tariff system. This system should also include the ability to conclude multi-year agreements.

On the other hand, although there are no capacity problems in the entire railway network in terms of freight transport, investments should be continued to make double-track for the regions that create bottlenecks. Signaling systems, which stand out with factors such as personnel efficiency, positive contributions to traffic capacity, and safety, should be expanded on existing lines according to the priority order to be determined depending on the traffic density. In this process, priority should be given to the signaling systems developed with domestic resources. Likewise, electrification systems, which are preferred for reasons such as reducing dependency on oil, increasing train carrying capacity and greenhouse gas emissions, should be aimed to be expanded on existing lines according to the priority order to be determined depending on traffic density. In addition, legislative measures that encourage or compel rail transport should be developed.

For example; Making it compulsory for freight transport over 300 kilometers to be made by rail, not collecting some taxes (SCT and VAT) from energy sources used in railways, making it compulsory to transport some types of cargo that must be transported by railways, increasing the control over the tonnage limitation for the loads to be transported by road etc. The development of freight transport is related to the line capacity in train/day. The increase in this capacity depends on many parameters; factors such as line geometry, healthy infrastructure maintenance operations, personnel qualifications and the quality of tractive-hauled vehicles. Parallel to the increasing electrified lines, weight should be given to the traction of the trains in the electric locos. The expansion of signalization and electrification will also have positive effects on freight transport.



5.2.2 Energy Efficiency and Environmental Awareness

- Increasing energy efficiency in rail transport (use of regenerative energy, etc.)
- Increasing the number of electric and hybrid vehicles
- Reducing the average age of the vehicle
- Internalizing external costs (traffic accident, congestion, emissions and noise etc.)
- Creating environmentally friendly rail freight terminals
- Carrying out noise-preventing works on railway vehicles

5.2.3 Safety and Security

- Raising the route safety and security in transportation to world standards
- Monitoring and managing towed and tractive and hauled vehicles from a center in an electronic environment in order to increase transportation safety on the railway.

- Keeping up-to-date risk analyzes for occupational health and safety and taking necessary precautions against risks.
- Keeping up-to-date risk analyzes for the prevention of train accidents and taking necessary precautions against risks.
- Controlling maintenance and repair facilities effectively.

5.2.4 Technology and Digitalization

- Carrying out studies in the field of railway transportation within the scope of digitalization
- Carrying out studies on the use of autonomous vehicles
- Real-time tracking and sharing of infrastructure and superstructure information (signaling, speed limits, maintenance-repair works, etc.) and locomotives, wagons and load regarding the region and routes, sharing them with the private sector.



6. PORTS AND MARITIME TRANSPORT



6. PORTS AND MARITIME TRANSPORT

In order to increase the weight of the maritime sector in transportation, in other words, to ensure that transportation can be shifted from land to sea, there is a need to follow the developments in the world under the heading of policies and strategies, and to implement a dynamic maritime policy by keeping up with these changes. In this context, there are two main policies for Ports and Maritime transportation.

6.1 Port and Maritime Network Development Policy

Türkiye has a large and strategically important maritime area for the Black Sea, Western Europe, Middle East and North Africa region, with its 8.333 km coastline

providing direct sea connections to various countries belonging to the geographical and geopolitical areas. The role of ports in Türkiye is becoming increasingly important in integrating transport modes across the country, as well as connecting regional and international transport corridors from east to west and from north to south. For this reason, the port sector plays a vital role in the Turkish economy, especially in foreign trade. The distribution of the cargo handled in the ports according to the port authorities is as in Figure 6.1 below;

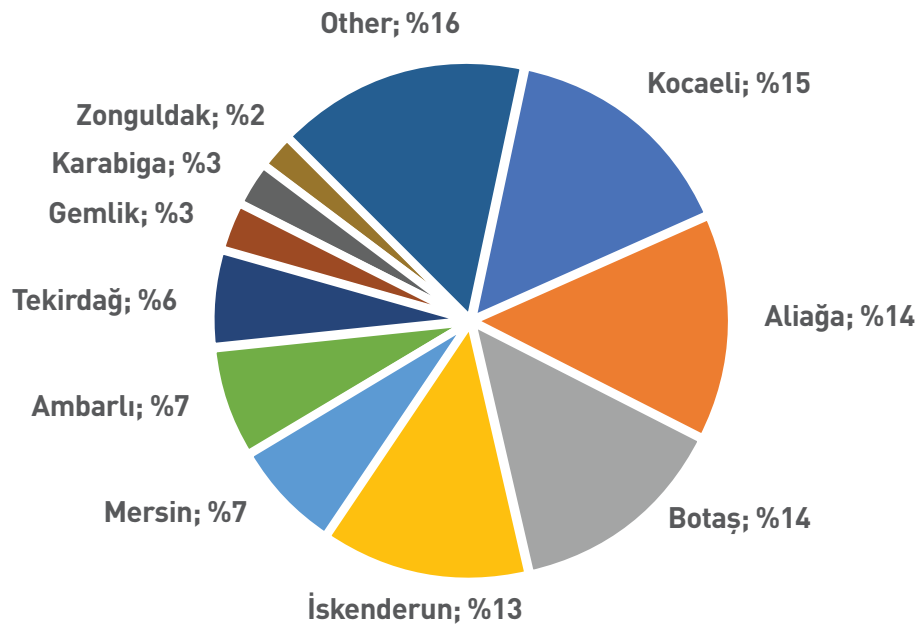


Figure 6.1 Distribution of Handled Cargo by Port Authority

Considering the distribution of cargo volumes handled at our ports, it is seen that the highest cargo is handled in the Marmara Region, Eastern Mediterranean region and Aegean region. Port and seaway investments to be made in order to eliminate potential bottlenecks

in these regions in the future should also intensify. In this context, infrastructure projects to develop ports and maritime network according to the Transport and Logistics Master Plan is given in Table 6.1.

Table 6.1 Infrastructure Projects of Maritime Network

Project Name	
Tekirdağ Dry Port	Cenal Energy Port
İskenderun Dry Port	Socar Power Port
Mersin Dry Port	Ege Steel Horozgediği Port
Kocaeli Dry Port	Sönmez Cement Pier
Mersin INTL. Port EMH1 and EMH2 (Eastern Mediterrean Hub) Extended	Galataport
Mersin HUB Port	Tosyalı Holding Erzin/Burnaz Port
Çandarlı Port	Tosyalı Holding Sarıseki/Azganlık Port
Filyos Port	Atakaş Port
Karasu Port	Ekol Ro-Ro Port
PETKİM Container Port	İzmir Alsancak Port Expansion
STAR ENERGY Port	Extension of container ports
ETKİ LNG Regasification Terminal	Extension of liquid bulk facilities
Beldeport Container Port	Extension of dry bulk facilities
Makliman Ro-Ro Port	Extension of general cargo facilities
Horizon Energy Port	The İstanbul Canal
Safiport Derince	

In addition to the infrastructure projects given in the table, the construction of the İyidere Logistics Port, which will be built within the scope of the İyidere Logistics Center planned to be built in Rize, has started. It is aimed that İyidere Logistics Port will be a logistics base that will make significant contributions to the regional and national economy.



6. PORTS AND MARITIME TRANSPORT

6.2 Maritime Passenger and Freight Services Development Policy

Maritime passenger and freight transport services emerge as an element for sustainable, resistant to external influences, efficient and effective growth. In addition, it is necessary to consider maritime policies and transportation policies as a whole.

Maritime passenger and freight transport services development policies for the purpose of blue economy, international maritime law, digitalization and automation, maritime transport and management, human resources and employment, maritime safety and security, sustainability of the marine ecosystem and climate change, and reduction of ship-sourced emissions are given below:

- Maritime Transport and Management
- Maritime Safety and Security
- Sustainability of the Marine Ecosystem and Climate Change
- Development of Ship Industry and Increasing Competitiveness
- Ensuring Effective Management and Efficiency of Coastal Structures
- Increasing Service Quality and Operational Efficiency
- Increasing Energy Efficiency and Environmental Awareness
- Increasing the Quality and Efficiency of Human Resources
- Increasing the Level of Technology and Digitalization

6.2.1 Maritime Transport and Management

When the last five years are examined, it is seen that the number of dry cargo ships, bulk carriers and container ships decreased, and the number of tanker ships remained stable. However, although the amount of products handled due to the Covid-19 pandemic has decreased in a certain period, it is higher than last year. Policies for the development of maritime transport and management are listed below:

- Developing a Turkish merchant fleet in order to provide alternative financial investments in the maritime sector
- Establishing a financing and incentive system in order to ensure competitiveness in the international arena
- Using UAV technologies that can detect movement and make facial recognition in separate and private areas where dangerous goods are kept.
- Taking measures to ensure that ship's crew are exempt from the restrictions during the pandemic period
- Taking measures in the future for business-related problems in the supply chain, such as the need for qualified personnel and containers during the pandemic process.

6.2.2 Maritime Safety and Security

The maritime safety and security system is one of the important performance indicators, and it is of great importance to improve, increase new technology and digitalization. Policies for this are listed below:

- Keeping the search and rescue system constantly working and up-to-date
- Ensuring maximum control in ship types with high risk factors
- Developing artificial intelligence software to analyze the results of inspections



- Investigating shipboard accidents systematically in order to improve maritime safety and protect the marine environment more effectively.
- Making the necessary arrangements and investments in order to maximize safety at the Bosphorus crossings.

6.2.3 Sustainability of the Marine Ecosystem and Climate Change

Sustainability of the marine ecosystem and climate change has an important place in the maritime sector. Policies to improve this are listed below:

- Developing existing studies in order to be a guide on environmental pollution.
- Developing University-Industry cooperation
- Optimizing the fuel station required by hybrid ships
- Increasing studies on different potential energy sources together with existing

renewable energy sources

- Making new regulations regarding the reduction of emissions originating from ships
- Taking necessary measures to protect biodiversity in the seas

6.2.4 Development of Ship Industry and Increasing Competitiveness

Policies for the development and competitiveness of the ship industry are listed below:

- Constructing ferries and tugboats using LNG fuel in an environmentally friendly (green) manner and presenting these products to the world maritime industry
- Supporting companies specializing in yacht building to protect and increase their branding and employment, and focusing on R&D and innovation in this field.

6.2.5 Ensuring Effective Management and Efficiency of Coastal Structures

Effective management of coastal structures and ensuring efficiency are important in the maritime sector. Policies for this purpose are listed below:

- Considering port projects and the transportation network between cities jointly in terms of the natural resources of the region and the supply and transportation of raw materials.
- Identifying the bottleneck and measuring the maximum capacity in order to ensure the efficient



6. PORTS AND MARITIME TRANSPORT

operation of the ports by considering the handling amount as the main output item for the ports.

- Monitoring and improving indicators such as the number of Turkish flagged fleet and private boats continuously.

6.2.6 Increasing Service Quality and Operational Efficiency

Policies to increase service quality and operational efficiency are listed below:

- Extending the safe execution of port operations on a single platform in the port and container tracking mechanism
- Increasing the transshipment service capacity of ports and developing a multi-modal and short-distance maritime transport infrastructure that can serve the countries of the region.
- Privatizing existing and ongoing public ports with an effective privatization model (based on dock and terminal)
- Bringing port facilities to international standards..

6.2.7 Increasing Energy Efficiency and Environmental Awareness

Policies to increase energy efficiency and environmental awareness are listed below:

- Providing incentives for the rejuvenation and development of the Turkish maritime merchant fleet
- Developing the necessary legal regulations regarding the protection of natural resources, as there will be irreversible losses if our natural resources are not appropriately protected while developing our maritime sector
- Preparing all kinds of measures related to marine pollution within the legal framework

- Developing measures and intervention plans that can be taken against radioactive pollution that may occur in the seas

- Providing incentives for green port implementation and reducing the use of environmentally harmful machinery and equipment

- Taking measures for low emission zone studies in the seas around our country.

6.2.8 Increasing Safety and Security

Policies to increase safety and security are listed below:

- Increasing international cooperation in maritime security studies
- Inspecting port facilities regularly and adequately
- Developing measures related to maritime transport security (e.g. pirates)
- Increasing regulations and inspections in coastal facilities and ports where dangerous goods are handled or temporarily stored.

6.2.9 Increasing the Quality and Efficiency of Human Resources

Policies aimed at increasing the quality and efficiency of human resources are listed below:

- Ensuring collaboration with the relevant departments of universities to meet the need for trained and qualified personnel in the maritime sector
- Rearranging working conditions to carry port operations without interruption.
- Giving priority to persons with maritime education (associate degree, undergraduate, master) in appointing personnel employed in public institutions. mesi için çalışma koşullarının yeniden düzenlenmesi,



6.2.10 Increasing the Level of Technology and Digitalization

Policies to increase the level of technology and digitalization are listed below:

- Providing real-time horizontal and vertical integration of all information related to port management, ship movements and territorial waters among stakeholders in the sector (port operator, shipowner, line operator) regarding port management, ship movements and territorial waters
- Establishing an Automated Container Inspection Lanes system and ensuring its integration with other logistics systems
- Ensuring the implementation of the Vessel Traffic Services (VTS) system in all ports

- Supporting R&D studies for alternative fuel (hydrogen, etc.) and autonomous ships
- Addressing e-navigation and digital maritime transformation at a strategic level together with autonomous systems.

An aerial night view of a large airport terminal and tarmac. The terminal building is illuminated, and numerous aircraft are parked at gates. The surrounding area is dark, with city lights visible in the distance. The entire image has a blue color cast.

7. AIRPORTS AND AIR TRANSPORT



7. AIRPORTS AND AIR TRANSPORT

There are two main policies for improving and regulating air freight and passenger transport.

These are airport network development policies and airway passenger and freight services development policies. Details of these policies are given in detail below.

7.1 Airport Network Development Policy

As of 2019, there are 51 active airports open to civil aviation in the country. The top 10 airports with the highest number of passengers among these airports and the annual number of passengers carried are given in Table 7.1.

Table 7.1 Airports Passenger Numbers in 2019

Airport	Numbers of Passenger in 2019
İstanbul Airport	68.122.024
Antalya Airport	35.679.421
Sabiha Gökçen Airport	35.560.610
Esenboğa Airport	13.740.595
Adnan Menderes Airport	12.365.256
Adana Şakirpaşa Airport	5.057.788
Dalaman Airport	4.905.019
Bodrum - Milas Airport	4.337.733
Trabzon Airport	3.770.878
Oğuzeli Airport	2.524.376

When Table 7.1 is examined, it is seen that the airports with the highest number of passengers are İstanbul Airport, Antalya Airport, Sabiha Gökçen Airport, Esenboğa Airport and Adnan Menderes Airport, respectively. Other airports contribute to the economic and social development of the region they are located in and provide passengers to major airports.

The projects planned for airport network development

within the scope of the Transport and Logistics Master Plan are given in Table 7.2 and Figure 7.1.

Table 7.2 Planned Projects for Airport Network Development

Project Name	Year
Çukurova Regional Airport	2022
Rize-Artvin Airport	2022
Tokat Airport	2022
Gümüşhane Airport	2023
Yozgat Airport	2023
Antalya Airport Extension	2023
Trabzon Airport Extension	2027
Esenboğa Airport Extension	2027
İstanbul Airport Phase 4	2029
Oğuzeli Airport	2029

When Figure 7.1 is examined, it is understood that existing, planned airports and airports to be increased in capacity are given in separate categories. Accordingly, it is seen that the number of airports to be expanded is 4 and the number of new airports to be built is 5.

7.2 Airways Passenger/Freight Transport Services Policy

The Civil Aviation Law No. 2920, which was published in 1983 according to the report of the airway sector working group of the 12th Transport and Communications Council and later revised several times, needs a revision within the Transport and Logistics Master Plan. It is concluded that revision is needed to comply with international rules, including ICAO, to meet the aviation industry's needs by eliminating the gaps and deficiencies in the legislation on domestic aircraft production, unmanned aerial vehicle systems, PPP projects and national integrated aviation security.

Important points for Türkiye to become a Global Air Logistics Center (Hub) can be listed as follows:

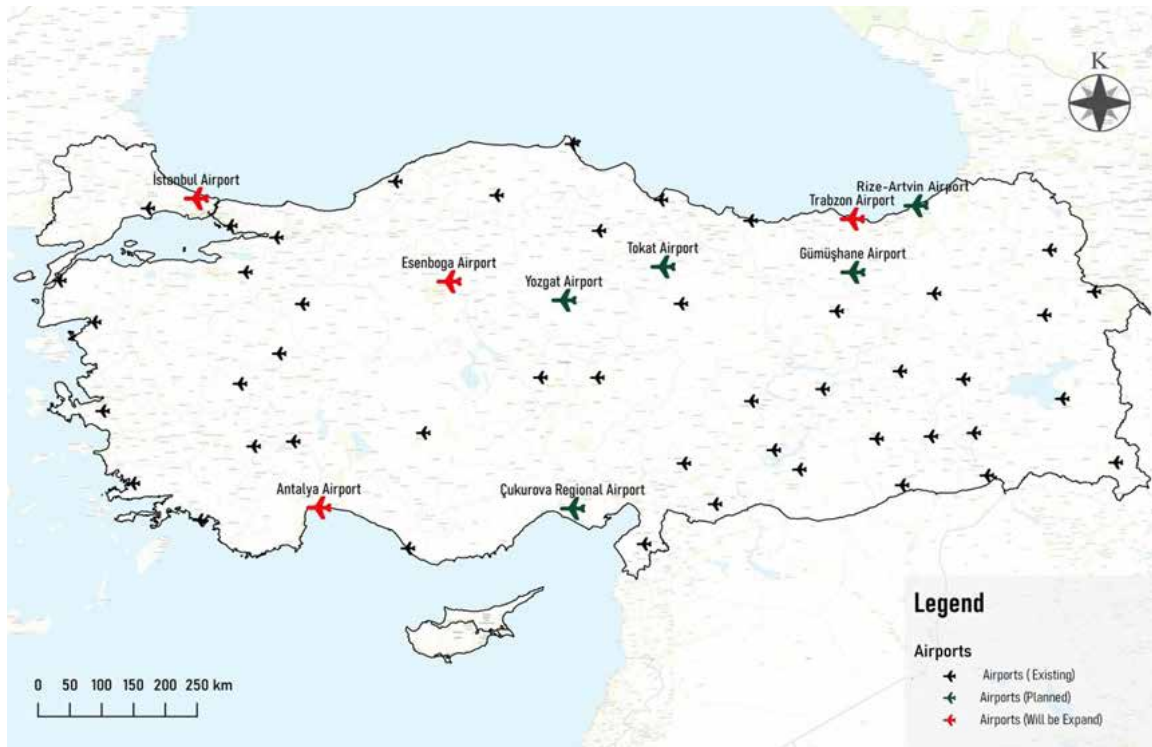


Figure 7.1 Planned Projects for Airport Network Development

Establishing regional and global logistics bases near airports, supporting these bases with air, sea, road and rail transportation modes, making plans for these regions to be used as regional and global centers for air cargo transportation, as well as to be used as disaster logistics centers in case of disaster.

In addition, it is thought that working on the use of Unmanned Aerial Vehicles in air cargo services, as in many areas, will add added value to the sector.

In order to ensure that sustainable growth can continue, it is important to follow compliance with international environmental rules. In addition, it should be aimed to ensure that environmentally friendly technologies such as alternative fuels are produced and used in our country.

7.2.1 Airway Transport and Management

Policies for the development of airway transport and management are listed below:

- Increasing the integration between the railway

stations that have been expanded for the future and the existing airports

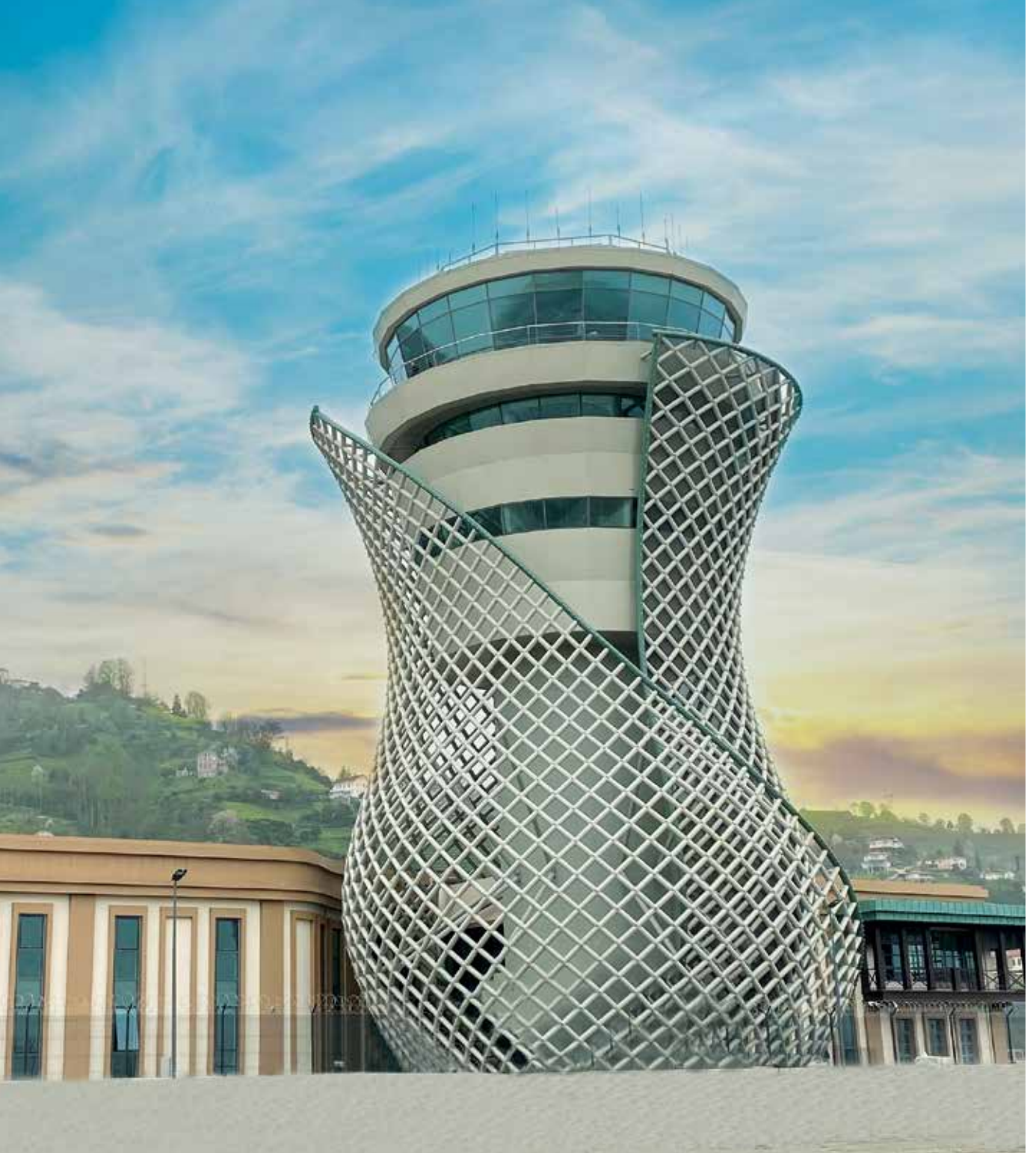
- Developing the necessary strategies (capacity, service quality, security, cost, speed, cooperation) by considering passenger, cargo and ground services as a whole in order for our country to be an air cargo transportation hub (hub and spoke) and carrying out studies for this.
- Developing regional air cargo transportation
- Ensuring the use of unused airports and idle airfields belonging to the Turkish Armed Forces and Turkish Aeronautical Association.
- Ensuring that airports work in integration with road, rail and maritime transport transfer terminals and logistics centers as much as possible.

7.2.2 Increasing Service Quality and Operational Efficiency

Service quality and operational efficiency are important performance indicators, and policies to increase this are listed below:



7. AIRPORTS AND AIR TRANSPORT



- Providing fast and comfortable transportation from the nearby city centers for the revival of idle airports.
- Investigating the cargo infrastructure of the existing airports in the country and making the necessary infrastructure investments and arrangements
- Providing full-time and integrated customs and cargo ground services
- Modernizing the air cargo facilities in Türkiye to serve a large number of aircraft simultaneously
- Establishing modern cargo logistics centers (cargo villages) close to airports to carry out cargo ground handling, storehouse and warehouse operations, and ensuring that they are operated by the private sector
- Ensuring a free competition environment in freight movements arriving at the airport by road and going from the airport by road
- Installing systems to monitor noise and make mapping at airports, determine the dose-effect relationship on airport basis using these maps, and take precautions

7.2.3 Increasing the Quality and Efficiency of Human Resources

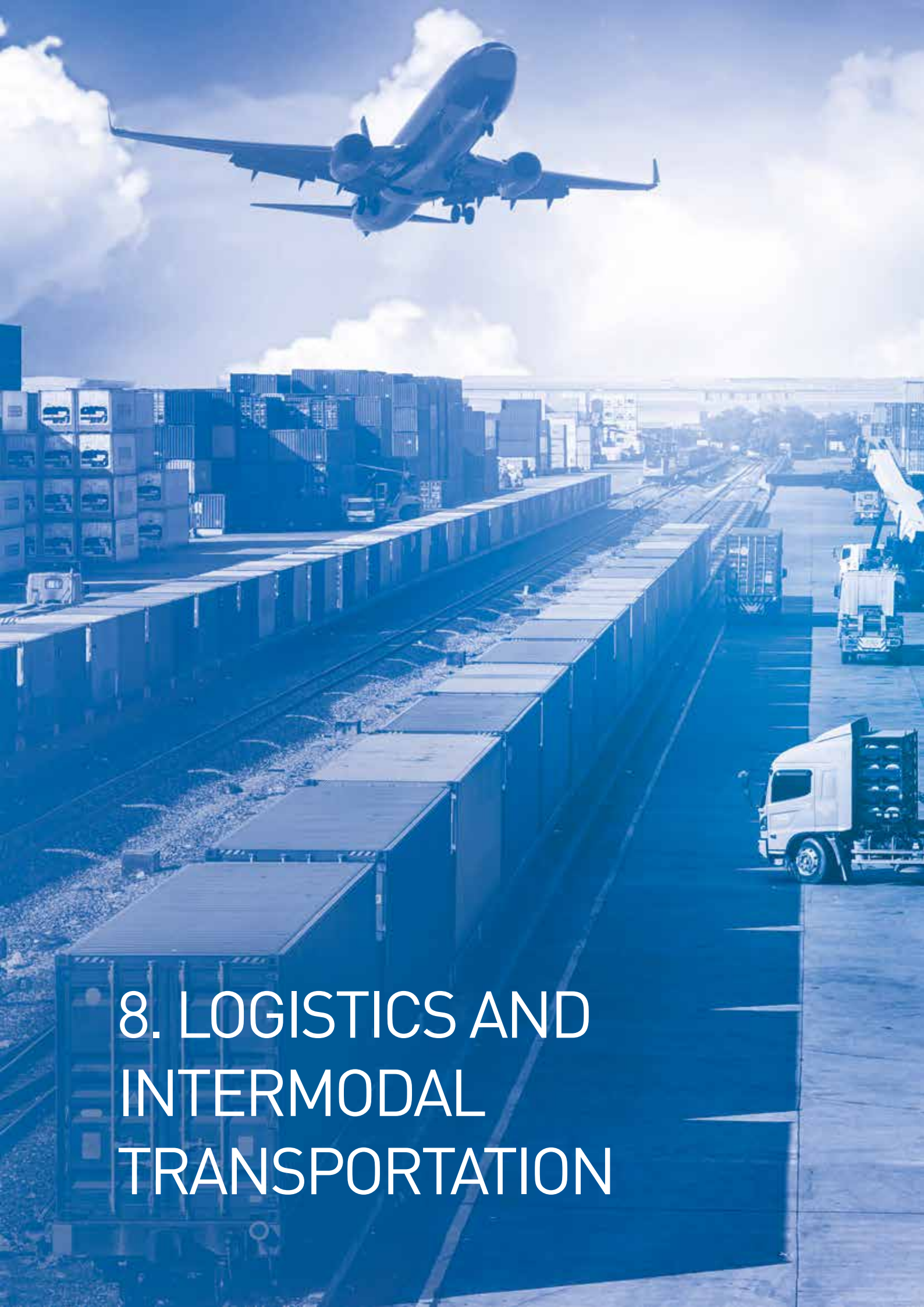
Policies aimed at increasing the quality and efficiency of human resources are listed below:

- Increasing the quality of human resources working at airports
- Continuous training of logistics services personnel in terms of aircraft types, property characteristics, equipment use, legislative changes and management
- Increasing the quality and quantity of thematic education institutions that will meet the human resources needs of air transport. niceliğinin artırılması.

7.2.4 Increasing the Level of Technology and Digitalization

Policies to increase the level of technology and digitalization are listed below:

- Developing applications that will integrate with other species at the right time and place
- Increasing the effectiveness of ITS applications in access between the airport and the settlements
- Ensuring that it works in coordination with cargo facilities, customs and agencies with the latest information technology applications.



8. LOGISTICS AND INTERMODAL TRANSPORTATION





8. LOGISTICS AND INTERMODAL TRANSPORTATION



Logistics centers have a political priority for the railway sector as a requirement of the age. When planned in suitable places in terms of management and capacity, all of the urban warehouse services will be able to shift to these centers. These centers, which can also be used as warehouses for the manufacturing sector, provide ease of transfer, reduce damages and allow the goods to be transferred directly to railways or other modes of transportation without the need for intermediate transportation.

To date, 13 logistics centers have been put into operation or their construction has been completed, and the planning and construction processes of 13 logistics centers are continuing. Logistics centers designated for rail transport should be designed by the definition of the logistics center, provided that users such as local governments and logistics companies have a say in the decision, investment, and management. In addition, these centers should be built in a short time. It is an

important issue that logistics centers are located in integrated places with other modes of transportation in order to obtain the desired efficiency. On the other hand, the operation of logistics centers is also an important point to be considered. It would be beneficial for the administration to have an autonomous structure, establish this autonomous structure at the project stage, and provide free access. Moreover;

- Increasing the investment share of the private sector by creating new business models within the framework of public-private sector cooperation for the establishment and operation of logistics centers
- Completing and implementing secondary legislation on railway transport in order to establish an effective competitive environment with the participation of the private sector and to bring costs to a sustainable level
- Ensuring the rehabilitation of existing logistics centers, establishing new logistics centers in

international standards and establishing effective business management

- Accelerating infrastructure investments to support multimodal transport in priority corridors in the international arena and eliminating bottlenecks in these corridors
- Accelerating customs control processes and increasing their efficiency
- Improving the technological infrastructure of production and logistics systems
- Supporting the Turkish logistics industry with a competent workforce
- Supporting the industry with projects focused on R&D and digitalization
- Establishing an automatic information and document sharing system between public units and different authorities and permitting authorities, are issues to be considered.

8.1 Combined Transport Regulations and Policies

Transport systems are classified as Unimodal Transportation and Multi-Modal Transportation, according to the number of modes of transport used. Unimodal Transportation is the transportation of cargo using a single mode of transport such as road, sea, air or rail. Multi- Modal Transportation, on the other hand, is a transportation system using two or more modes of transportation within the scope of a single transportation contract.

Multi-modal transportation can be done in three different ways:

1. Containerless Multi-Modal Transportation: It is a transport system that uses two or more

modes of transport, in which cargoes are handled directly during mode changes.

2. Intermodal Transportation: It is a transportation system using two or more modes of transportation, in which the container containing the cargo is handled during mode changes (Transportation container is an intermodal cargo transportation unit in the form of container, mobile box, semi-trailer, wagon).

3. Combined Transportation: It is a container containing transportation system in which most of the transportation is carried out by rail, sea or inland waterway, and the road is used as short distances as possible at the beginning and / or ending parts.

Multi-modal transportation regulation and policy recommendations are provided below:

- In order to support multi-modal transportation services, logistics centers and clusters, a multimodal corridor structure should be established in the context of the “Main Transport Corridor”, which has a high capacity and quality, a variety of transport modes and services. Inefficient storage and transportation should be prevented by developing transportation corridors in harmony with multi-modal transportation, with appropriate transfer centers and road-rail combination.
- The integration of intermodal transportation in national and international transport should be increased.
- Short Sea Shipping that supports cabotage transportation should be developed.
- By carrying out an analysis study to determine the locations and capacities of load production attraction points suitable for multi-modal transportation throughout Türkiye; Maritime-Railway, Road-Railway, Road-Sea, Road-Airway multi-modal transportation operations should be developed.
- Multi-modal transportation with standard transport containers should be increased in the Black Sea and



8. LOGISTICS AND INTERMODAL TRANSPORTATION

the Mediterranean Sea.

- Developments in maritime and pipeline transportation integrations of the Black Sea and the Mediterranean Sea should be monitored and necessary cooperation should be developed.
- RO-RO, RO-LA and Train-Ferry lines should be developed, their capacities should be increased, inadequacies in their terminals should be eliminated, activities for effective and efficient freight transfers should be developed. In the first stage, Kapıkule-Ankara- Mersin, in the second stage, Ankara-Zengezur (Azerbaijan) RO-LA lines should be established. For the European market, rail-sea combinations should be increased on the north-south and east-west routes of the Marmara Sea.
- The use of transport containers that can be used by all modes of transport should be increased in order to increase the share of multi-modal transportation.
- Multi-modal transportation terminals should be created with environmentally friendly and energy efficient equipment, the safety of these facilities and the level of occupational health and safety should be increased, and the qualifications of the operators of the handling equipment used in the terminals should be increased.
- Support should be given to the establishment of occupational standards for multi-modal transportation.
- Bosphorus crossing routes (bridges and tunnels) should be clarified and scheduled to ensure an uninterrupted Europe-Far East railway connection. The use of the Baku- Tbilisi-Kars railway line should be increased.

8.2 Policies for Balancing the Modal Split of Transport

When the modal split rates in terms of passenger and freight transportation in Türkiye are examined, it is seen that the highways have a large share especially in domestic transportation. In order to shift this

weight to other types, albeit partially, it is seen that the share allocated to railway investments has increased significantly in recent years. With the increase in investments in railways to create the most appropriate balance between transportation modes, it is seen that the derivative distribution ratios in passenger and freight transportation have changed positively for the projection years. In this context, policies for balancing transportation rates between different types have been determined as given below.

- Multi-modal transportation systems should be supported for the efficient use of resources.
- Large ports should be connected to OIZ, logistics centers, mines and large enterprises by rail.
- Rail transportation should be developed, commercial speed should be increased for freight transportation on railways and railway connection of our ports with surrounding countries should be provided in order to improve transit transportation.
- A free, fair and sustainable competitive environment should be ensured in railway transportation, passenger and freight railway terminals should be brought to a sufficient level and modernized by making requirement planning.
- Railway facility and network structure (in terms of place size and function) should be restructured.

8.3 Institutional And Legal Structure

The policies to be followed regarding the institutional and legal structuring have been determined as follows:

- A legal framework should be established to strengthen multi-modal transportation.
- Logistics legislation should be simplified to be compatible with the European Union.
- All transport modes should be strengthened institutionally.



TCDD Transport

- Road transport superstructure management system should be developed and road safety level should be increased.
- Rail transportation should be harmonized with international legislation.
- Liberalization and development of rail freight transport services should be ensured.
- Railway road safety should be improved.
- Maritime navigational safety should be increased.
- Compliance with safety, security and environmental standards should be ensured in international air transport.

8.4 Inclusion and Accessibility of Transport Services

- Real-time load flow monitoring and evaluation system should be established in multimodal transportation.
- Incentives for multi-modal transportation should be increased and international incentives should be utilized effectively.
- Tax reductions, exceptions and exemption arrangements concerning the sector should be clarified together with the sector's stakeholders, and tax reduction in fuel (petroleum products, electricity, etc.) should be based on certain criteria (environment, multi-modal transportation, being in logistics centers, etc.).
- Efficient multi-modal transportation routes should be



8. LOGISTICS AND INTERMODAL TRANSPORTATION

determined in freight transportation, and these routes should be encouraged with government support.

- Port and port facilities should be developed that can handle the container transportation in our region to a large extent, and that can also be an alternative to the ports of rival countries for container traffic in the Mediterranean Sea.
- Air freight transport capacity and efficiency should be improved, and Türkiye's position in aviation should be strengthened in the international arena. In order to become an air cargo transportation hub and spoke, the necessary work programs (capacity, service quality, security, cost, speed, cooperation) should be developed by considering passenger, cargo and ground services as a whole.
- The network of logistics centers should be developed, the logistics centers to be established should be planned and managed in a way that will have at least two transportation mode connections, and in a way that will convert the road load of the logistics center to rail and sea freight, by the aim of increasing multi-modal transportation.
- A dry port network should be developed.
- Access to air transport should be improved.

8.5 Participation of Central Government in the Activities of Local Governments

- Regional and urban logistics master plans should be made considering the Transport and Logistics Master Plan.
- Central government representatives should be involved in stakeholder platforms of the local government's logistics sector.
- Multi-modal transportation should be given importance in regional logistics master plans.

8.6 The Role of Private Sector and Public-Private Partnership

- Coordination between hazardous material and other special cargo transport modes should be increased.
- A public-private partnership should be given importance in the development of multimodal transport systems.
- University and technopark collaborations should be established in logistics service designs, and R&D activities should be developed with public-private and university partnerships.
- Integration studies should be carried out with transportation companies working on global transportation corridors (TEN-T, TRACECA, belt road middle corridor, Viking), and transit transportation should be increased.
- Coordination between stakeholders should be increased in all transport modes.
- A partnership should be made with relevant institutions to diversify international multimodal logistics corridors connected with national logistics corridors and create alternatives.
- Turkish flagged maritime transport should be supported.

8.7 Compensation and Support Policies According to the Polluter Pays Principle

- The "Polluter Pays" principle should be applied so that the negative impacts on the environment are met by those who create this negativity based on fair and transparent criteria.
- Greenhouse gas emissions and air pollution originating from logistics should be reduced, and systems such as carbon footprint detection, carbon taxation, and emissions trading should be used to keep greenhouse gas emissions at desired levels.
- Compliance with international agreements (EU White Paper, Paris Climate Agreement, European Green Consensus, European Climate Law, etc.) should be ensured within the framework of environmental awareness.

- The freight transport fleet should be renewed, and environmentally friendly vehicles should be encouraged.

8.8 Examination of E-Commerce with Logistics Dimension

- Airport city formations should be created to increase e-exports at existing airports.
- Efforts should be made to develop and expand e-commerce logistics activities in

The information and communication technologies of the age, which reduce administrative procedures in logistics and transportation, provide freight tracking and monitoring, use the infrastructure optimally, and ensure the effective and efficient management of traffic, should be utilized at the highest level. The percentage of usage of e-business (Internet, e-Commerce, Portal, EDI etc.) data exchange opportunities should be increased.





9. DEVELOPMENT OF INTELLIGENT TRANSPORTATION SYSTEMS





9. DEVELOPMENT OF INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems (ITS) are systems based on information communication. ITS, developed to reduce travel times, increase traffic safety, efficient use of existing road capacities, increase mobility, efficient use of energy and reduce the damage to the environment, is a multi-faceted data exchange between the user, vehicle, infrastructure and the center, as well as monitoring, measurement, analysis and includes control mechanisms. The purpose of Intelligent Transportation Systems is to increase road safety, road capacity, mobility, travel comfort and speed, while reducing the negative effects of transportation on human, environment and energy resources, thus increasing the current and future efficiency of individuals and institutions.

Within the scope of Intelligent Transportation Systems, innovative technologies and applications such as big data processing, the Internet of Things (IoT), 5G Mobile networks, innovative and autonomous vehicles, drones, 3D printers and robotic applications are emerging day by day. It is of great importance that these changes in technology meet the needs and requirements determined within the Intelligent Transportation Systems for the future transportation systems to serve as sustainable, efficient, safe and environmentally friendly. In this context, the policies to ensure the compatibility of intelligent transportation systems with innovative and game-changing new technologies and to develop new ITS applications are listed below:

- Creating the ITS architecture of our country in a way that will meet the requirements and needs, highlighting our national technologies, national standards, national strategies and policies, and national smart city architecture
- Developing ITS architecture that responds to national and regional requirements and needs, considering the national smart city architecture, and promoting the use of this architecture in ITS applications
- Supporting research studies for the development of innovative and game-changing technologies that will enable the most efficient use of existing technology in

expanding the scope of ITS application areas,

- Developing applications that enable the management of user services on a single platform for centers hosting ITS applications created within the scope of ITS and supporting research projects for this purpose,
- Developing a national software that will enable communication and data sharing between centers established within the ITS, such as the Traffic Management Center (TMC), Public Transport Management Center (PTMC), Emergency Management Center (EMC),
- Promoting ITS applications at the local level for the dissemination of the ITS architecture to be created at the national level, provided that they comply with the national architecture and the national smart cities architecture.
- Establishing an open access data portal to ITS application stakeholders to benefit and make cost comparisons of ITS applications,
- Increasing mobility by developing electronic payment systems, public transportation, fleet management and multimodal transportation systems,
- Creating new data systems for data collection, sharing and security
- Creating low emission zones for the viable environment
- Giving priority to ITS applications to increase traffic safety.



Ankara - Niğde Motorway Intelligent Transportation Systems

928,545

28,545

8,545

128,150

548,125

215,810

9,007

337,296

124,545

289,004

1

10. ANNEX 1 – INVESTMENT PROGRAMS





ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Highway Investment Cost Timeline																																		
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
K31	(Pınarbaşı-Gürün) jct.-Kaynar-16th Border Road Widening	x	x	x	x	x	x																													
K32	(Sındırgı-Simav) jct.-Demirci-Salıhlı Road Widening	x	x	x	x	x	x																													
K33	(Sivas-Şarkışla) jct.-Kangal Road Widening	x	x	x	x	x	x																													
K34	(Söke-Milas) jct.-Akköy-Didim Road Widening	x	x	x	x	x	x	x	x																											
K35	(Sungurlu-Çorum) jct.-Boğazkale jct.-Alaca-Çekerek jct.-Zile-Turhal Road Widening	x	x	x	x	x	x																													
K36	(Tarsus-Adana) jct.-Pozantı Road Widening	x	x	x	x	x	x																													
K37	(Yıldızeli-Sivas) jct.-Direkli-Bedirli-Hanlı Road Widening	x	x	x	x	x	x																													
K38	(Zile-Alaca) jct.-Çekerek-Sorgun State Road (3) Road Widening	x	x	x	x	x	x																													
K39	14th Border Road-Afyon Road Widening	x	x	x	x	x	x																													
K40	15th Border Road Osmaniçik (Osmaniçik Urban Pass Included) Road Widening	x	x	x	x	x	x																													
K41	16th Border Road-Tercan-Aşkale Road Widening	x	x	x	x	x	x																													
K42	Adana South Ring Road	x	x	x	x	x	x																													
K43	Adana-Ceyhan-Toprakkale Road Widening	x	x	x	x	x	x																													
K44	Adana-Kozan Road Widening	x	x	x	x	x	x																													
K45	Adana-Tuzla jct. Road Widening	x	x	x	x	x	x																													
K46	Adapazarı-Karasu-Akçakoca (MD) Road Widening	x	x	x	x	x	x																													
K47	Adilcevaz-Erciş Road Widening	x	x	x	x	x	x																													



Label No.	Project Name	Highway Investment Cost Timeline																
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
K48	Afyon Passing Road Widening	x	x	x	x													
K49	Afyon-Burdur Motorway												x	x	x	x		
K50	Afyonkarahisar South Ring Road					x	x											
K51	Afyonkarahisar-Gazlıgöl-Kırka Road Widening	x	x	x	x													
K52	Afyon-Şuhut Road Widening	x	x	x	x													
K53	Ağrı-Hamur-Tutak-Patnos Road Widening	x	x	x	x													
K54	Ağrı-Taşlıcağ Road Widening	x	x	x	x													
K55	Ahlal-Adilcevaz Road Widening	x	x	x	x													
K56	Akhisar Ring Road	x	x	x	x													
K57	Aksaray jct.-Nevşehir South Ring Road Widening	x	x	x	x													
K58	Akşar-Göle-Ardahan (Ardahan Passage Included) Road Widening	x	x	x	x													
K59	Akşehir-(Yalvaç-Sarıkkırağaç) jct. Road Widening	x	x	x	x													
K60	Alanya-Gazipaşa-5th Border Road Widening	x	x	x	x													
K61	Alanya-Silifke Motorway																	
K62	Amasya Ring Road																	
K63	Amasya-Turhal-Tokat-16th Border Road Widening	x	x	x	x													
K64_1	Ankara - Kırıkkale - Delice Motorway																	
K64_2	Delice - Samsun Motorway																	
K66_1	Ankara - Sivrihisar Motorway																	



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Highway Investment Cost Timeline																																					
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053			
K136	Erciş-Muradiye-Çaldıran (Erciş Passage Included) Road Widening	x	x	x	x																																		
K137	Erciş-Patnos Road Widening	x	x	x	x																																		
K138	Erdemli-Silifke-Taşucu-13rd Border Road Widening	x	x	x	x																																		
K139	Eregli Ring Road Widening	x	x	x	x																																		
K140	Ergani-8th Border Road Widening	x	x	x	x																																		
K141	Erzurum jct.-Ispir Road Widening	x	x	x	x																																		
K142	Erzurum-Pasinler-Horasan Road Widening	x	x	x	x																																		
K143	Eskişehir-Alpu-Mihalıççık Road Widening	x	x	x	x																																		
K144	Eskişehir-Sarıcakaya-Nallihan Road Widening	x	x	x	x																																		
K145	Foca-Yıldırım Road Widening	x	x	x	x																																		
K146	Gelibolu-Eceabat Road Widening	x	x	x	x																																		
K147_1	Gerede - Ilgaz Motorway																																						
K147_2	Gerede-Merzifon-Gürbulak Motorway (Ilgaz-Merzifon Section)																																						
K147_3	Gerede-Merzifon-Gürbulak Motorway (Merzifon Gürbulak Section)																																						
K149	Gevaş jct.-Bitlis İl Sınırı Road Widening	x	x	x	x																																		
K150	Giresun jct.-Dereli-Şebinkarahisar-Suşehri jct. State Road (Eğribel, Pınarlar, Tunnels and jct. Roads Included) Road Widening	x	x	x	x																																		
K151	Göksun-6th Border Road Widening	x	x	x	x																																		



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Highway Investment Cost Timeline																																		
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029																								
K200	Kütahya-Simav-Demirci jct. Road Widening	x	x	x	x	x																														
K201	Lüleburgaz Ring Road	x	x																																	
K202	Malatya North Ring Road																																			
K203	Malatya-Gölbasi Road Widening	x	x	x	x																															
K204	Malazgirt Ring Road	x	x	x																																
K205	Manisa Güney Ring Road																																			
K206	Mardin-Midyat-Cizre (Midyat Urban Pass Included) Road Widening	x	x	x	x																															
K207	Mekece-Adapazari Road Widening	x	x	x	x																															
K208	Mersin-Erdemli Road Widening	x	x	x	x																															
K209	Mersin-Gözne Road Widening	x	x	x	x																															
K210	Mesudiye-Gölköy-Ordu Road Widening	x	x	x	x																															
K211	Midyat Ring Road	x	x	x	x																															
K212	Milas-Bodrum-Turgutreis Road Widening	x	x	x	x																															
K213	Muğla North Ring Road																																			
K214	Muğla-Kale-Tavas-(Denizli-Serimhisar) jct. Road Widening	x	x	x	x																															
K215	Muş-Varto Road Widening	x	x	x	x																															
K216	Narlı-Pazarlık-8th Border. Road Widening	x	x	x	x																															
K217	Nevşehir-Avanos Road Widening	x	x	x	x																															
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053

Label No.	Project Name	Highway Investment Cost Timeline																																					
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053			
K218	Neveşehir-Niğde (Neveşehir Ring Road Included) Road Widening	x	x	x	x	x	x																																
K219	Nizip-Karkamış Road Widening	x	x	x	x																																		
K220	Nurdağı-İsliahiye Road Widening	x	x	x	x																																		
K221	Nusaybin jct.-Oyali jct. Road Widening	x	x	x	x																																		
K222	Oltu Passage Road Widening	x	x	x	x																																		
K223	Ordu Giresun South Ring Road													x	x	x	x																						
K224	Ormanköy-Akyazı-Dokurcun-4th Border: (Balıkaya Diversion.) (MD) Road Widening	x	x	x	x																																		
K225	Osmancık-Saraycık-Merzifon Road Widening	x	x	x	x																																		
K226	Oyalı jct.-Cizre Road Widening	x	x	x	x																																		
K227	Pınarbaşı-5th Border Road Widening	x	x	x	x																																		
K228	Polatlı-Yunak-Akşehir Road Widening	x	x	x	x																																		
K229	Refahiye-(Erzincan-Kelkit) jct. Road Widening	x	x	x	x																																		
K230	Refahiye-Kuruçay-İliç Road Widening	x	x	x	x																																		
K231	Reşat Baysal Diversion Widening	x	x	x	x																																		
K232	Salıhlı-Alaşehir-Buldan-(Aydın-Denizli) jct. Road Widening	x	x	x	x																																		
K233	Samsun- Mersin Motorway																																						
K234	Selçuk-Kuşadası-Söke (İzmir-Aydın) jct. - Sazlık Road Widening	x	x	x	x																																		

Label No.	Project Name	Highway Investment Cost Timeline																																					
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053			
K251	Tatvan Ring Road (Bitlis Ring Road Connction Included) Road Widening	x	x	x	x	x																																	
K252	Taşanlı-Domaniç (Tunçbilek Entrance Included) Road Widening	x	x	x	x	x																																	
K253	Taşanlı-Emet-Sımav Road Widening	x	x	x	x	x																																	
K254	Tekirdağ-Hayrabolu Road Widening	x	x	x	x	x																																	
K255	Tokat Ring Road	x	x	x	x	x																																	
K256	Tokat-Kızılınış-16th Border Road Widening	x	x	x	x	x																																	
K257	Tokat-Niksar Road Widening	x	x	x	x	x																																	
K258	Tomarza jct. - Pınarbaşı Road Widening	x	x	x	x	x																																	
K259	Torbali-Ödemiş-Kiraz Road Widening	x	x	x	x	x																																	
K260	Trabzon - Habur Motorway											x	x	x	x																								
K261	Trabzon-Aşkale Road Widening	x	x	x	x	x																																	
K262	Trakya Motorway-Kırklareli-Dereköy- Aziziye-Bulgaria-Border Road Widening	x	x	x	x	x																																	
K263	Ulukisla-Pozanti Road Widening																																						
K264	Uşak Ring Road	x	x	x	x	x																																	
K265	Uşak-Afyon Road Widening	x	x	x	x	x																																	
K266	Ürgüp-Boğazköprü Road Widening	x	x	x	x	x																																	
K267	Van Ring Road	x	x	x	x	x																																	
K268	Van Provincial Border-Tatvan Road Widening	x	x	x	x	x																																	

ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Highway Investment Cost Timeline														
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029				
K269	Van-(Hakkari-Yüksekova) Jct. Road Widening	x	x	x	x	x	x									
K270	Van-Muradiye Jct. Road Widening	x	x	x	x	x	x									
K271	Van-Özalp-Kapıköy Road Widening	x	x	x	x	x	x									
K272	Viranşehir-Kızıltepe Road Widening	x	x	x	x	x	x									
K273	Yasıören Jct.-Subaşı-Çatalca (Çatalca Ring Road Included) Road Widening	x	x	x	x	x	x									
K274	Yenikent-Temelli Road Widening	x	x	x	x	x	x									
K275	Yerköy Jct.-Yozgat-Sorgun Road Widening	x	x	x	x	x	x									
K276	Yıldızeli Jct.-7th Border Road Widening	x	x	x	x	x	x									
K277	Yıldızeli-Sivas-Zara-İmranlı, Sivas-Ulaş (Airport Connction Included) Road Widening	x	x	x	x	x	x									
K278	Zara-Geminbeli-Susehri (Geminbeli Tunnel and Connction Roads Included) Road Widening	x	x	x	x	x	x									
K279	Zonguldak- Amasra- Kurucayaşile- Cide Road Widening	x	x	x	x	x	x									
K280	Çanakale Bridge														x	
K281	Kuzey Marmara Motorway Cebeci Tunnel															



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Railway Investment Cost Timeline																																			
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	
D57_2	Balkesir-Bergama																																				
D58	Railway Connection of Mines Phase 1						x	x	x	x																											
D59	Railway Connection of Mines Phase 2											x	x	x	x																						
D60	Railway Connection of OIZs Phase 1						x	x	x	x																											
D61	Railway Connection of OIZs Phase 2												x	x	x	x																					
D62	Railway Connection of Factories Phase 1										x	x	x	x																							
D63	Railway Connection of Factories Phase 2														x	x	x	x																			
D64_1	Railway Connection of Ports Phase 1																																				
D64_2	Railway Connection of Ports Phase 2																																				

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K1	(Acıpayam-Antalya) jct.-Çameli-13rd Border Road Widening	2x2	8,0	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,01 Billion €	0,00 Billion €
K2	(Akşehir-Afyon) jct.-Çay-Bolvadin-Emirdağ (Emirdağ Ring Road) Road Widening	2x2	62,0	0,09 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K3	(Antalya-Reyhanlı) jct.-Altınözü Road Widening	2x2	20,2	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K4	(Antalya-Burdur) Ayrım – Kızılkaya – Korkuteli – Elmalı – Finike State Road Widening	2x2	159,0	0,23 Billion €	0,00 Billion €	0,23 Billion €	0,00 Billion €	0,00 Billion €
K5	(Antalya-Manavgat) jct.-Dereboğazi-Ağlasun jct. Road Widening	2x2	109,8	0,16 Billion €	0,00 Billion €	0,16 Billion €	0,00 Billion €	0,00 Billion €
K6	(Ardahan-Kars) jct.-Çıldır-Aktaş Road Widening	2x2	47,0	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K7	(Başkale-Hakkari) jct.-Yüksekova-Esendere Road Widening	2x2	75,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K8	(Başkale-Yüksekova) jct.-Hakkari jct. Road Widening	2x2	36,0	0,05 Billion €	0,00 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €
K9	(Bitlis-Tatvan) jct.-Muş (Airport Connection Road Included) Road Widening	2x2	76,0	0,11 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K10	(Bursa-İnegöl) jct.-Y. Şehir-(Bilecik-Osm.) jct. Road Widening	2x2	72,0	0,10 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K11	([Çıldır-Ardahan] jct.-Hanak-Damat-Posof-Türküzü (3) Road Widening	2x2	62,0	0,09 Billion €	0,00 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €
K12	(Çorum-Sungurlu) jct.-Alaca-Yozgat-Sorgun) jct. Road Widening	2x2	73,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K13	(Devrek-Çaycuma) jct.-Zonguldak Road Widening	2x2	34,5	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K14	(Diyarbakır-Mardin) jct.-Bismil-Batman Road Widening	2x2	66,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K15	(Edirne-Havsa) jct. Hasköy-Kırklareli Road Widening	2x2	47,5	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K16	(Elmadag-Kırıkkale) jct.-Kalecik Road Widening	2x2	32,0	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K17	(Erzurum-Aşkale) jct.-İspir State Road Kırık Tunnel and jct. Roads Wide	2x2	15,8	0,02 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K18	(Erzurum-Aziziye) jct.-Çat-Karlıova-Bingöl Road Widening	2x2	178,0	0,26 Billion €	0,00 Billion €	0,26 Billion €	0,00 Billion €	0,00 Billion €
K19	(Gaziantep-Kilis) jct.-Oğuzeli-Karkamış Road Widening	2x2	11,6	0,02 Billion €	0,00 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K20	(Göbbaşı-Kulu) jct.-Bala-(Kırşehir-Kırıkkale) jct. Road Widening	2x2	134,0	0,19 Billion €	0,00 Billion €	0,19 Billion €	0,00 Billion €	0,00 Billion €
K21	(İzmir-Çeşme) jct.-Seferhisar-Selçuk-Kuşadası jct. Road Widening	2x2	80,0	0,12 Billion €	0,00 Billion €	0,00 Billion €	0,12 Billion €	0,00 Billion €
K22	(Kayseri-Sivas) jct.-Bünyan jct.-Köprübaşı Road Widening	2x2	44,0	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K23	(Kırklareli-Tekirdağ) City Border-Çorlu Road Widening	2x2	24,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K24	(Konya-Karaman) jct.-Belören-Hadım Road Widening	2x2	63,0	0,09 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K25	(Konya-Karaman) jct. Dinek-Belören Road Widening	2x2	52,0	0,08 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K26	(Korkuteli-Çavdır) jct.-(Fethiye-Kalkan) jct. Road Widening	2x2	71,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K27	(Kovancılar-Mazgirt) jct.-Akyünlü-(Kovancılar-Tunceli) jct. Road Widening	2x2	15,0	0,02 Billion €	0,00 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €
K28	(Manavgat-Alanya) jct.-Akseki-3rd Border Road Widening	2x2	80,3	0,12 Billion €	0,00 Billion €	0,12 Billion €	0,00 Billion €	0,00 Billion €
K29	(Mersin-Tarsus O.Y.) jct.-Mersin OSB-D400 jct. Road Widening	2x2	11,1	0,02 Billion €	0,00 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €
K30	(Merzifon-Çorum) jct.-Mecitözü-(Amasya-Turhal) jct. State Road Widening	2x2	61,0	0,09 Billion €	0,00 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €
K31	(Pınarbaşı-Gürün) jct.-Kaynar-16th Border Road Widening	2x2	48,0	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K32	(Sındırgı-Simav) jct.-Demirci-Salihli Road Widening	2x2	124,0	0,18 Billion €	0,00 Billion €	0,18 Billion €	0,00 Billion €	0,00 Billion €
K33	(Sivas-Şarkışla) jct.-Kangal Road Widening	2x2	69,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K34	(İsöke-Milas) jct.-Akköy-Didim Road Widening	2x2	20,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K35	(Sungurlu-Çorum) jct.-Boğazkale jct.-Alaca-Çekerek jct.- Zile-Turhal Road Widening	2x2	159,0	0,23 Billion €	0,00 Billion €	0,23 Billion €	0,00 Billion €	0,00 Billion €
K36	(Tarsus-Adana) jct.-Pozantı Road Widening	2x2	61,0	0,09 Billion €	0,00 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €
K37	(Yıldızeli-Sivas) jct.-Direkli-Bedirli-Hanlı Road Widening	2x2	46,0	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K38	(Zile-Alaca) jct.-Çekerek-Sorgun State Road (3) Road Widening	2x2	10,0	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K39	14th Border Road-Afyon Road Widening	2x2	45,0	0,06 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K40	15th Border Road Osmancık (Osmancık Urban Pass Included) Road Widening	2x2	57,0	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K41	16th Border Road-Tercan-Aşkale Road Widening	2x2	47,0	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K42	Adana South Ring Road	2x3	28,8	0,15 Billion €	0,00 Billion €	0,15 Billion €	0,00 Billion €	0,00 Billion €
K43	Adana-Ceyhan-Toprakkale Road Widening	2x2	25,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K44	Adana-Kozan Road Widening	2x2	67,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K45	Adana-Tuzla jct. Road Widening	2x2	45,0	0,06 Billion €	0,00 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €
K46	Adapazarı-Karasu-Akçakoca (MD) Road Widening	2x2	108,0	0,16 Billion €	0,00 Billion €	0,16 Billion €	0,00 Billion €	0,00 Billion €
K47	Adıcevaz-Erciş Road Widening	2x2	54,0	0,08 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K48	Afyon Passing Road Widening	2x2	19,0	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K49	Afyon-Burdur Motorway	2x3	288,0	1,36 Billion €	0,00 Billion €	0,00 Billion €	1,36 Billion €	0,00 Billion €
K50	Afyonkarahisar South Ring Road	2x2	11,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K51	Afyonkarahisar-Gazigöl-Kırka Road Widening	2x2	36,0	0,05 Billion €	0,00 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €
K52	Afyon-Şuhut Road Widening	2x2	24,0	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K53	Ağrı-Hamur-Tutak-Patnos Road Widening	2x2	79,0	0,11 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K54	Ağrı-Taşlıçay Road Widening	2x2	31,0	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K55	Ahlat-Adıcevaz Road Widening	2x2	23,0	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K56	Akhisar Ring Road	2x2	13,1	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K57	Aksaray jct.-Neveşehir South Ring Road Widening	2x2	65,9	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K58	Akşehir-Göle-Ardahan (Ardahan Passage Included) Road Widening	2x2	20,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K59	Akşehir-(Yalvaç-Şarkikaraağaç) jct. Road Widening	2x2	30,2	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K60	Alanya-Gazipaşa-5th Border Road Widening	2x2	74,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €



ANNEX 1 - INVESTMENT PROGRAMS

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K61	Alanya-Silifke Motorway	2x3	209,0	0,99 Billion €	0,00 Billion €	0,00 Billion €	0,99 Billion €	0,00 Billion €
K62	Amasya Ring Road	2x2	11,0	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K63	Amasya-Turhal-Tokat-16th Border.Road Widening	2x2	77,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K64_1	Ankara - Kirikkale - Delice Motorway	2x3	127,0	0,60 Billion €	0,00 Billion €	0,60 Billion €	0,00 Billion €	0,00 Billion €
K64_2	Delice - Samsun Motorway	2x3	303,0	1,43 Billion €	0,00 Billion €	0,00 Billion €	1,43 Billion €	0,00 Billion €
K66_1	Ankara - Sivrihisar Motorway	2x4	127,0	0,79 Billion €	0,00 Billion €	0,79 Billion €	0,00 Billion €	0,00 Billion €
K66_2	Ankara-Izmir Motorway (Sivrihisar-Izmir Section)	2x4	447,0	2,78 Billion €	0,00 Billion €	0,00 Billion €	2,78 Billion €	0,00 Billion €
K67	Ankara-Kazan (between Ring Road jct. -Kazan) Road Widening	2x3	27,5	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K68	Antakya-(Reyhantlı-Cilvegözü) jct. Road Widening	2x2	38,0	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K69	Antakya-Yayladağı-Suriye Hd.Road Widening	2x2	51,0	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K70	Antalya - Alanya Motorway	2x3	122,0	0,58 Billion €	0,00 Billion €	0,58 Billion €	0,00 Billion €	0,00 Billion €
K71	Antalya Ring Roads	2x2	29,0	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K72	Antalya North Ring Road Widening	2x3	50,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K73	Antalya-Alanya Road Widening	2x2	111,0	0,16 Billion €	0,00 Billion €	0,16 Billion €	0,00 Billion €	0,00 Billion €
K74	Antalya-Kemer-Tekirova-Firike Road Widening	2x2	99,0	0,14 Billion €	0,00 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €
K75	Ardahan-Şavşat (10th Rg.) Road Widening	2x2	24,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K76	Aşkale-Erzurum (Erzurum Ring Road and Airport Connction Included) Road Widening	2x2	71,0	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K77	Aydın - Denizli Motorway	2x3	163,0	0,77 Billion €	0,00 Billion €	0,77 Billion €	0,00 Billion €	0,00 Billion €
K78	Aydın Kuzey Ring Road	2x2	15,0	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,05 Billion €
K79	jct.-Hacılar-Develi-Yahyalı Provincial Road (Yahyalı Passage Included) Widening	2x2	43,0	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K80	Bala Ayrımı-Aksaray-Ereğli jct. Road Widening	2x2	285,0	0,41 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K81	Balıkesir East Ring Road	2x2	13,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K82	Balıkesir-Dursunbey-Harmancık-Tavşanlı (Balıkesir Ring Road Included) Road Widening	2x2	179,0	0,26 Billion €	0,26 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K83	Balıkesir-Susurluk-Karacabey Road Widening	2x2	93,0	0,13 Billion €	0,00 Billion €	0,13 Billion €	0,00 Billion €	0,00 Billion €
K84	Bandırma-Karacabey Çıkışı Road Widening	2x2	40,0	0,06 Billion €	0,00 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €
K85	Bartın-Çaycuma-(Devrek-Zonguldak) jct.Road Widening	2x2	51,0	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K86	Batman-(Silvan-Kozluk) jct. Road Widening	2x2	28,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K87	Batman-Hasankeyf-Gercüş-Midyat Road Widening	2x2	77,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K88	Belevi-Tire Road Widening	2x2	35,5	0,05 Billion €	0,00 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €
K89	Bergama Ring Road	2x3	10,3	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K90	Beypazarı-Nalihan Road Widening	2x2	59,0	0,09 Billion €	0,00 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €
K91	Beyşehir Ring Road	2x2	8,3	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K92	Beyşehir-Derebucak-13rd Border Road Widening	2x2	56,3	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K93	Beyşehir-Seydişehir Road Widening	2x2	28,0	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K94	Beyşehir-Şarkikaraağaç Road Widening	2x2	44,0	0,06 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K95	Biga jct.-Bandırma Road Widening	2x2	70,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K96	Bigadiç-Sındırgı Road Widening	2x2	21,2	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K97	Bingöl-Genç-Kocaköy-(Diyarbakır-Silvan) jct. Road Widening	2x2	119,0	0,17 Billion €	0,00 Billion €	0,17 Billion €	0,00 Billion €	0,00 Billion €
K98	Bingöl-Kartal-Sancak-Hasbağlar-Kığı Road Widening	2x2	9,0	0,01 Billion €	0,00 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €
K99	Bogazlıyan-Sarıkaya- Sorgun Road Widening	2x2	67,0	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,10 Billion €
K100	Bolu Güney Ring Road	2x2	31,0	0,11 Billion €	0,00 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €
K101	Bornova-Turgutlu-Salihli Road Widening	2x2	73,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K102	Boyabat Urban Pass	2x2	10,0	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K103	Bozkır-Hadim-Adiltepe Road Widening	2x2	19,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K104_1	Sapanca - Afyonkarahisar Motorway	2x3	116,0	0,55 Billion €	0,00 Billion €	0,55 Billion €	0,00 Billion €	0,00 Billion €
K104_2	Bozüyük-Afyonkarahisar Motorway	2x3	105,0	0,50 Billion €	0,00 Billion €	0,00 Billion €	0,50 Billion €	0,00 Billion €
K105	Burdur- Tefenni-Çavdır Road Widening	2x2	92,0	0,13 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K106	Bursa-İnegöl-Bozüyük Road Widening	2x2	101,0	0,15 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K107	Bursa-Yalova (Gemlik ve Umurbey Jct. D.) Road Widening	2x2	68,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K108	Ceyhan-Çukurova-Kozan State Road Widening	2x2	10,0	0,01 Billion €	0,00 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €
K109	Ceyhan-Yumurtalık Road Widening	2x2	34,0	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K110	Cizre-Silopi Road Widening	2x2	32,0	0,05 Billion €	0,00 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €
K111	Cizre-Şirnak Road Widening	2x2	36,9	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K112	Çanakkale-Ezine-Ayvacı Road Widening	2x2	70,0	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K113	Çerkezköy-Çorlu Provincial Road Widening	2x2	21,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K114_1	Mersin-Erdemli-Silifke-Taşucu Motorway (Çeşmeli-Kızkalesi Section)	2x3	52,0	0,25 Billion €	0,00 Billion €	0,25 Billion €	0,00 Billion €	0,00 Billion €
K114_2	Çeşmeli-Erdemli-Silifke-Taşucu Motorway (Kızkalesi-Taşucu Kesimi)	2x3	41,0	0,19 Billion €	0,00 Billion €	0,00 Billion €	0,19 Billion €	0,00 Billion €
K115	Çivril Ring Road	2x2	7,9	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K116	Çorlu Airport jct. -Şerefliler Port connections Road Widening	2x2	23,0	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K117	Denizli Ring Road	2x2	42,0	0,14 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,14 Billion €
K118	Denizli-Acıpayam-13rd Border Road Widening	2x2	78,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K119	Denizli-Burdur-Antalya Motorway	2x3	231,0	1,09 Billion €	0,00 Billion €	0,00 Billion €	1,09 Billion €	0,00 Billion €
K120	Denizli-Çardak-13rd Border Road Widening	2x2	59,0	0,09 Billion €	0,00 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €
K121	Dinar North Ring Road	2x2	5,0	0,02 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,02 Billion €

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K122	Diyarbakır-Ergani Road Widening	2x2	60,6	0,09 Billion €	0,00 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €
K123	Diyarbakır-Mardin Road Widening	2x2	91,0	0,13 Billion €	0,00 Billion €	0,13 Billion €	0,00 Billion €	0,00 Billion €
K124	Diyarbakır-Siverek-Sanlıurfa (Akziyaret Airport-Hilvan jct. D.) Road Widening	2x2	187,0	0,27 Billion €	0,00 Billion €	0,27 Billion €	0,00 Billion €	0,00 Billion €
K125	Dört Yol Hassa Motorway	2x3	31,0	0,15 Billion €	0,00 Billion €	0,15 Billion €	0,00 Billion €	0,00 Billion €
K126	Dört Yol-Hassa (3) Road Widening	2x3	31,3	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €
K127	Düzce West Ring Road	2x2	8,0	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,03 Billion €
K128	Edirne-Lalapaşa-Hamzabeyli Hudut Kapısı Road Widening	2x2	37,2	0,05 Billion €	0,00 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €
K129	Edremit-Gevaş jct. Road Widening	2x2	22,0	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K130	Elazığ-Bingöl Road Widening	2x2	143,0	0,21 Billion €	0,21 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K131	ziğ-Malatya Road Widening	2x2	114,0	0,16 Billion €	0,16 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K132	Elazığ-Sivrice jct.-Maden-9th Border Road Widening	2x2	78,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K133	Elbistan-8th Border Road Widening	2x2	46,0	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K134	Emirdağ jct.-Aydın Road Widening	2x2	66,3	0,10 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K135	Erbaa-Reşadiye Road Widening	2x2	73,0	0,11 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K136	Erciș-Muradiye-Çaldıran (Erciș Passage Included) Road Widening	2x2	72,0	0,10 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K137	Erciș-Patnos Road Widening	2x2	48,0	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K138	Erdemli-Silifke-Taşucu-13rd Border Road Widening	2x2	227,0	0,33 Billion €	0,00 Billion €	0,33 Billion €	0,00 Billion €	0,00 Billion €
K139	Ereğli Ring Road Widening	2x2	16,5	0,02 Billion €	0,00 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €
K140	Ergani-8th Border Road Widening	2x2	19,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K141	Erzurum jct.-İspir Road Widening	2x2	111,0	0,16 Billion €	0,00 Billion €	0,16 Billion €	0,00 Billion €	0,00 Billion €
K142	Erzurum-Pasinler-Horasan Road Widening	2x2	74,4	0,11 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K143	Eskişehir-Alpu-Mihalıççık Road Widening	2x2	40,0	0,06 Billion €	0,00 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €
K144	Eskişehir-Sarıcakaya-Nallıhan Road Widening	2x2	30,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K145	Foca-Yıldırım Road Widening	2x2	23,5	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,03 Billion €
K146	Geliboğlu-Eceabat Road Widening	2x2	47,5	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K147_1	Gerede - Ilgaz Motorway	2x3	154,0	0,73 Billion €	0,00 Billion €	0,00 Billion €	0,73 Billion €	0,00 Billion €
K147_2	Gerede-Merzifon-Gürbulak Motorway (Ilgaz-Merzifon Section)	2x3	193,0	0,91 Billion €	0,00 Billion €	0,00 Billion €	0,91 Billion €	0,00 Billion €
K147_3	Gerede-Merzifon-Gürbulak Motorway (Merzifon-Gürbulak Section)	2x3	979,0	4,63 Billion €	0,00 Billion €	0,00 Billion €	4,63 Billion €	0,00 Billion €
K149	Gevaş jct.-Bitlis İl Sınırı Road Widening	2x2	32,0	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K150	Giresun jct.-Dereli-Şebinkarahisar-Suşehri jct. State Road (Eğribel, Pınarlar, Tunnels and jct. Roads Included) Road Widening	2x2	10,9	0,02 Billion €	0,00 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €
K151	Göksun-6th Border Road Widening	2x2	32,7	0,05 Billion €	0,00 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €
K152	Gölnbaşı-Adıyaman-Kahta Road Widening	2x2	98,0	0,14 Billion €	0,00 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €
K153	Gönen-Buğdaylı-(Biga-Bandırma) jct. Road Widening	2x2	22,9	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K154	Havran-Edremit-Ayvacı State Road Widening	2x2	72,0	0,10 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K155	Hayrabolu Ring Road	2x2	9,0	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K156	Hendek-4th Border Road Widening	2x2	19,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K157	Horasan-Eleşkirt Road Widening	2x2	56,4	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K158	İlgün-Aşağıçiftlik-(Konya-Beyşehir) DYA Road Widening	2x2	7,0	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K159	İslahiye-Hassa-Kırınhan Road Widening	2x2	60,0	0,09 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K160	Isparta East Ring Road	2x2	21,0	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €
K161	İbradı jct.-Taşgöl-(Antalya-Manavgat) jct. Road Widening	2x2	67,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K162	İmranlı-Refahiye Road Widening	2x2	71,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K163	İnegöl-Yenişehir State Road Widening	2x2	6,1	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K164	İstanbul-Şile Road Widening	2x3	46,0	0,10 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K165	İzmit-Kandıra Road Widening	2x2	40,6	0,06 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K166	İzmit-Karamürsel State Road Widening	2x2	35,0	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K167	Kadiri-Andırın-Göksun Road Widening	2x2	7,0	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K168	Kahramanmaraş Ring Road	2x2	26,0	0,09 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K169	Kahramanmaraş-Süleymanlı jct. Road Widening	2x2	34,5	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K170	Kahta-Narince-Siverek Road Widening	2x2	84,0	0,12 Billion €	0,12 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K171	İstanbul Canal Connection Roads	2x3	110,0	0,56 Billion €	0,56 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K172	Karakurt-Kağızman Road Widening	2x2	45,0	0,06 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K173	Karaman Ring Road	2x2	21,0	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K174	Kars-Digor-İğdir Road Widening	2x2	137,0	0,20 Billion €	0,20 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K175	Kars-Selim-Horasan Road Widening	2x2	126,0	0,18 Billion €	0,18 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K176	Kars-Susuz-Ardahan Road Widening	2x2	88,0	0,13 Billion €	0,13 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K177	Kastamonu-Cankiri (Ilgaz Tunnel and Kırık Damn Relocation Road Included) Road Widening	2x2	113,5	0,16 Billion €	0,16 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K178	Kastamonu-İnebolu (Kastamonu Ring Road Included) Road Widening	2x2	99,2	0,14 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K179	Kaynarca-Karasu Road Widening	2x2	35,0	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K180	Kayseri South Ring Road	2x2	38,6	0,13 Billion €	0,13 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K181	Kayseri-Niğde Road Widening	2x3	9,0	0,02 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K182	Kazan-Kızılcahamam-Gerede Road Widening	2x2	91,0	0,13 Billion €	0,13 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K183	Keban-Arapgir-Divriği jct. Road Widening	2x2	9,0	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K184	Kelkit-Köse Road Widening	2x2	21,0	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,03 Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K185_1	Kınalı - Tekirdağ - Çanakkale - Savaştepe Motorway (Malikara-Çanakkale Section)	2x3	101,0	0,48 Billion €	0,48 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K185_2	Kınalı - Tekirdağ - Çanakkale - Savaştepe Motorway (Malikara-KINALI Section)	2x3	127,0	0,60 Billion €	0,00 Billion €	0,60 Billion €	0,00 Billion €	0,00 Billion €
K185_3	Kınalı-Tekirdağ-Çanakkale-Savaştepe Motorway - Çanakkale -Savaştepe Section	2x3	136,0	0,64 Billion €	0,00 Billion €	0,00 Billion €	0,64 Billion €	0,00 Billion €
K186	Kınalı jct.- Çerkezköy- Saray-Kırklareli State Road Widening	2x2	35,0	0,05 Billion €	0,00 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €
K187	Kınalı jct.-Çorlu Road Widening	2x2	29,0	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K188	Kınalı jct.- Tekirdağ Road Widening	2x2	57,0	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K189	Kırıkhan-Reyhaneli-Çivgözü Road Widening	2x2	45,0	0,06 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K190	Kırkkale-Kırşehir-Himmetdede jct. Road Widening	2x2	140,0	0,20 Billion €	0,00 Billion €	0,20 Billion €	0,00 Billion €	0,00 Billion €
K191	Kırşehir Ring Road	2x2	25,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K192	Kırşehir-Aksaray Road Widening	2x2	46,3	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K193	Kızılkaya jct.-Antalya Road Widening	2x2	48,0	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K194	Kızıltepe-Nusaybin Road Widening	2x2	56,0	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K195	Konya Ring Road	2x3	68,0	0,15 Billion €	0,00 Billion €	0,15 Billion €	0,00 Billion €	0,00 Billion €
K196	Konya-Ereğli Road Widening	2x2	141,0	0,20 Billion €	0,20 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K197	Konya-Karaman-5th Border State Road (Sertavul Tunnel and Connection Roads Included) Road Widening	2x2	138,8	0,20 Billion €	0,00 Billion €	0,20 Billion €	0,00 Billion €	0,00 Billion €
K198	Kula-Salıhi Road Widening	2x2	44,0	0,06 Billion €	0,00 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €
K199_1	Kuzey Marmara Motorway Akyazi Section	2x4	170,2	1,06 Billion €	1,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K199_2	Kuzey Marmara Motorway Kınalı - Çatalca Connection	2x4	28,0	0,17 Billion €	0,17 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K199_3	Kuzey Marmara Motorway Nakkaş - Başakşehir Section	2x4	45,0	0,28 Billion €	0,00 Billion €	0,28 Billion €	0,00 Billion €	0,00 Billion €
K200	Kütahya-Simav-Demirci jct. Road Widening	2x2	151,0	0,22 Billion €	0,22 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K201	Lüleburgaz Ring Road	2x2	11,3	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K202	Malatya North Ring Road	2x2	20,0	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €
K203	Malatya-Göbaşı Road Widening	2x2	100,0	0,14 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K204	Malazgirt Ring Road	2x2	29,0	0,10 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K205	Manisa Güney Ring Road	2x2	11,0	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €
K206	Mardin-Midyat-Cizre (Midyat Urban Pass Included) Road Widening	2x2	157,0	0,23 Billion €	0,23 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K207	Mekece-Adapazarı Road Widening	2x2	46,0	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K208	Mersin-Erdemli Road Widening	2x2	16,0	0,02 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K209	Mersin-Gözne Road Widening	2x2	24,5	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K210	Mesudiye-Gölköy-Ordu Road Widening	2x2	13,0	0,02 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K211	Midyat Ring Road	2x2	26,0	0,09 Billion €	0,00 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €
K212	Milas-Bodrum - Turgutreis Road Widening	2x2	70,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K213	Muğla North Ring Road	2x2	20,0	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,07 Billion €
K214	Muğla-Kale-Tavas-(Denizli-Serinhisar) jct. Road Widening	2x2	112,3	0,16 Billion €	0,00 Billion €	0,00 Billion €	0,16 Billion €	0,00 Billion €
K215	Muş-Yarto Road Widening	2x2	42,0	0,06 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K216	Narlı-Pazarcık-8th Border.Road Widening	2x2	56,4	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K217	Nevşehir-Avanos Road Widening	2x2	15,0	0,02 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K218	Nevşehir-Niğde (Nevşehir Ring Road Included) Road Widening	2x2	76,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K219	Nizip-Karkamış Road Widening	2x2	31,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K220	Nurdağı-İslahiye Road Widening	2x2	24,0	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K221	Nusaybin jct.-Oyali jct. Road Widening	2x2	45,0	0,06 Billion €	0,00 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K222	Oltu Passage Road Widening	2x2	29,0	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K223	Ordu Giresun South Ring Road	2x2	47,0	0,16 Billion €	0,00 Billion €	0,00 Billion €	0,16 Billion €	0,00 Billion €
K224	Ormanköy-Akyazı-Dokurcun-4th Border. (Ballukaya Diversion.) [MD] Road Wid	2x2	40,0	0,06 Billion €	0,00 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €
K225	Osmancık-Saraycık-Merzifon Road Widening	2x2	49,0	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K226	Oyalı jct.-Cizre Road Widening	2x2	55,0	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K227	Pınarbaşı-5th Border Road Widening	2x2	58,0	0,08 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K228	Polatlı-Yunak-Akşehir Road Widening	2x2	168,0	0,24 Billion €	0,00 Billion €	0,24 Billion €	0,00 Billion €	0,00 Billion €
K229	Refahiye-(Erzincan-Kelkit) jct. Road Widening	2x2	60,0	0,09 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K230	Refahiye-Kuruçay-iliç Road Widening	2x2	75,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K231	Reşat Baysal Diversion Widening	2x2	9,0	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K232	Sahtılı-Alaşehir-Buldan-(Aydın-Denizli) jct. Road Widening	2x2	79,0	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
K233	Samsun- Mersin Motorway	2x3	320,0	1,65 Billion €	0,00 Billion €	1,08 Billion €	0,57 Billion €	0,00 Billion €
K234	Selçuk-Kuşadası-Söke (Izmir-Aydın) jct.-Sazlık Road Widening	2x2	47,0	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
K235	Siirt-Eruh Road Widening	2x2	6,5	0,01 Billion €	0,00 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €
K236	Siirt-Kurtalan jct.-Ziyaret Road Widening	2x2	21,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K237	Silifke-Mut- 3rd Border Road Widening	2x2	112,0	0,16 Billion €	0,00 Billion €	0,16 Billion €	0,00 Billion €	0,00 Billion €
K238	Silvan-Malabadi-H. Köprü-11th Border Road Widening	2x2	87,0	0,13 Billion €	0,00 Billion €	0,13 Billion €	0,00 Billion €	0,00 Billion €
K239	Sivrihisar-Bursa Motorway	2x3	234,0	1,11 Billion €	0,00 Billion €	0,00 Billion €	1,11 Billion €	0,00 Billion €
K240	Sivrihisar-Eskişehir-Bozüyük (Eskişehir Interchange and Widening and South Ring Road Project Works Included) Road Widening	2x2	96,0	0,14 Billion €	0,00 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €
K241	Sorgun-Akdağmadeni-Yıldızeli Road Widening	2x2	157,0	0,23 Billion €	0,00 Billion €	0,23 Billion €	0,00 Billion €	0,00 Billion €
K242	Suruç-Akçakale Road Widening	2x2	25,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €



Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K243	Süleymanlı jct.-Göksun Road Widening	2x2	39,6	0,06 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K244	Şanlıurfa Şehir Geçişi Road Widening	2x2	10,0	0,01 Billion €	0,00 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €
K245	Şanlıurfa-Akçakale Road Widening	2x2	56,0	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K246	Şanlıurfa-Habur Motorway (Diyarbakır Connection Roads Included)	2x3	447,0	2,11 Billion €	0,00 Billion €	0,00 Billion €	2,11 Billion €	0,00 Billion €
K247	Şile-Ağva-Kandırca-Kaynarca Road Widening	2x3	64,5	0,14 Billion €	0,00 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €
K248	Tarsus Truism Center Road Widening	2x2	15,0	0,02 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K249	Taşlıçay-Diyadin jct. Road Widening	2x2	54,0	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K250	Tatvan jct.-Bitlis-9th Border (Bitlis Passage Included) Road Widening	2x2	30,0	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K251	Tatvan Ring Road (Bitlis Ring Road Connection Included) Road Widening	2x2	21,0	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K252	Tavaşanlı-Domaniç (Tunçbilek Entrance Included) Road Widening	2x2	9,2	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K253	Tavaşanlı-Emet-Simav Road Widening	2x2	17,6	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K254	Tekirdağ-Hayrabolu Road Widening	2x2	45,7	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K255	Tokat Ring Road	2x2	8,0	0,03 Billion €	0,00 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €
K256	Tokat-Kızılınış-16th Border Road Widening	2x2	31,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K257	Tokat-Niksar Road Widening	2x2	34,0	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K258	Tomarza jct.-Pınarbaşı Road Widening	2x2	52,0	0,08 Billion €	0,00 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
K259	Torbalı-Ödemiş-Kiraz Road Widening	2x2	92,3	0,13 Billion €	0,13 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K260	Trabzon - Habur Motorway	2x3	530,0	2,51 Billion €	0,00 Billion €	1,70 Billion €	0,81 Billion €	0,00 Billion €
K261	Trabzon-Aşkale Road Widening	2x2	236,0	0,34 Billion €	0,00 Billion €	0,34 Billion €	0,00 Billion €	0,00 Billion €
K262	Trakya Motorway-Kırklareli-Dereköy-Aziziye-Bulgarian Border:Road Wi	2x2	63,0	0,09 Billion €	0,00 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €
K263	Ulukisla-Pozantı Road Widening	2x2	34,0	0,05 Billion €	0,00 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Width	Length (km)	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
K264	Uşak Ring Road	2x3	30,0	0,15 Billion €	0,00 Billion €	0,15 Billion €	0,00 Billion €	0,00 Billion €
K265	Uşak-Afyon Road Widening	2x2	39,0	0,06 Billion €	0,00 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €
K266	Ürgüp-Boğazköprü Road Widening	2x2	48,0	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K267	Van Ring Road	2x3	41,0	0,21 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K268	Van Provincial Border-Tatvan Road Widening	2x2	69,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K269	Van-(Hakkari-Yüksekova) jct. Road Widening	2x2	151,0	0,22 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K270	Van-Muradiye jct. Road Widening	2x2	70,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K271	Van-Özalp-Kapıköy Road Widening	2x2	98,0	0,14 Billion €	0,00 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €
K272	Vanşehir-Kızıltepe Road Widening	2x2	72,0	0,10 Billion €	0,00 Billion €	0,10 Billion €	0,00 Billion €	0,00 Billion €
K273	Yassören jct.-Subaşı-Çatalca (Çatalca Ring Road Included) Road Widening	2x2	26,0	0,04 Billion €	0,00 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €
K274	Yenikent-Temelli Road Widening	2x2	39,0	0,06 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K275	Yerköy jct.-Yozgat-Sorgun Road Widening	2x2	61,0	0,09 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K276	Yıldızeli jct.-7th Border Road Widening	2x2	30,0	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K277	Yıldızeli-Sivas-Zara-İmranlı, Sivas-Ulaş (Airport Connection Included) Road Widening	2x2	185,0	0,27 Billion €	0,00 Billion €	0,27 Billion €	0,00 Billion €	0,00 Billion €
K278	Zara-Geminbeli-Suşehri (Geminbeli Tunnel and Connection Roads Included) Road Widening	2x2	55,0	0,08 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
K279	Zonguldak- Amasra- Kurucaşile- Cide Road Widening	2x2	147,5	0,21 Billion €	0,00 Billion €	0,21 Billion €	0,00 Billion €	0,00 Billion €
K280	Çanakkale Bridge	2x3	4,6	2,43 Billion €	2,03 Billion €	0,41 Billion €	0,00 Billion €	0,00 Billion €
K281	Kuzey Marmara Motorway Cebeci Tunnel	2x4	8,6	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
	Toplam		20.585	54,95 Billion €	11,25 Billion €	22,59 Billion €	20,64 Billion €	0,47 Billion €

Label No.	Project Name	Type	Length	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
D1_1	ROLA Operation	Conventional	1179,0	7,68Billion €	0,00Billion €	7,68Billion €	0,00Billion €	0,00Billion €
D1_2	ROLA Operation	Conventional	1097,0	7,15Billion €	0,00Billion €	0,00Billion €	7,15Billion €	0,00Billion €
D2_1	İzmir-Ankara RR (Ankara - Afyon Section)	Rapid Rail	152,0	1,62Billion €	1,62Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D2_2	İzmir-Ankara RR (İzmir - Afyon Section)	Rapid Rail	356,0	3,78Billion €	0,00Billion €	3,78Billion €	0,00Billion €	0,00Billion €
D3	Bursa-Osmaneli RR	Rapid Rail	106,0	1,13Billion €	1,13Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D4	Ankara - Sivas HSR	HSR	393,0	4,83Billion €	4,83Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D5	Konya-Karaman RR	Rapid Rail	102,0	1,08Billion €	1,08Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D6	Adana-İncirlik-Toprakkale RR	Rapid Rail	79,0	0,84Billion €	0,84Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D7	Akçagöze-Başpınar Conv.	Conventional	11,0	0,07Billion €	0,07Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D8	Köseköy-Gebze Conv.	Conventional	37,0	0,24Billion €	0,24Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D9	Diyarbakır-Mazıdağı Conv.	Conventional	54,0	0,35Billion €	0,35Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D10	Sincan-Yenikent-Kazan-Soda Conv.	Conventional	18,0	0,12Billion €	0,12Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D11_1	Halkalı-Kapıkule_RR (Kapıkule - Çerkezköy Section)	Rapid Rail	153,0	1,88Billion €	1,88Billion €	0,00Billion €	0,00Billion €	0,00Billion €
D11_2	Halkalı-Kapıkule_RR (Çerkezköy Halkalı Section)	Rapid Rail	76,0	0,93Billion €	0,00Billion €	0,93Billion €	0,00Billion €	0,00Billion €
D12	İstanbul - Ankara Very HSR	HSR	262,0	3,22Billion €	0,00Billion €	3,22Billion €	0,00Billion €	0,00Billion €
D13	3.Havalimanı-Çatalca RR	Rapid Rail	25,0	0,27Billion €	0,00Billion €	0,27Billion €	0,00Billion €	0,00Billion €
D14	Adapazarı-Gebze-YSS-Halkalı RR	Rapid Rail	188,0	2,00Billion €	0,00Billion €	2,00Billion €	0,00Billion €	0,00Billion €
D15	Karaman-Ulukışla RR	Rapid Rail	135,0	1,43Billion €	0,00Billion €	1,43Billion €	0,00Billion €	0,00Billion €
D16	Toprakkale-Bahçe-Nurdağ-Başpınar RR	Rapid Rail	131,0	1,39Billion €	0,00Billion €	1,39Billion €	0,00Billion €	0,00Billion €
D17	Aksaray-Ulukışla RR	Rapid Rail	86,0	0,91Billion €	0,00Billion €	0,91Billion €	0,00Billion €	0,00Billion €
D18	Ulukışla-Yenice RR	Rapid Rail	106,0	1,13Billion €	0,00Billion €	1,13Billion €	0,00Billion €	0,00Billion €
D19	Bandırma-Bursa RR	Rapid Rail	74,0	0,79Billion €	0,00Billion €	0,79Billion €	0,00Billion €	0,00Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Type	Length	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
D20	Adana-Mersin RR	Rapid Rail	67,0	0,71Billion €	0,00Billion €	0,71Billion €	0,00Billion €	0,00Billion €
D21	Sivas-Erzincan RR	Rapid Rail	242,0	2,57Billion €	0,00Billion €	2,57Billion €	0,00Billion €	0,00Billion €
D22	Yerköy-Kayseri RR	Rapid Rail	142,0	1,51Billion €	0,00Billion €	1,51Billion €	0,00Billion €	0,00Billion €
D23	Bursa-Gemlik RR	Rapid Rail	24,0	0,26Billion €	0,00Billion €	0,26Billion €	0,00Billion €	0,00Billion €
D24	Mürşitpınar-Şanlıurfa RR	Rapid Rail	63,0	0,67Billion €	0,00Billion €	0,67Billion €	0,00Billion €	0,00Billion €
D25	Aliğa-Çandarlı-Bergama RR	Rapid Rail	57,0	0,61Billion €	0,00Billion €	0,61Billion €	0,00Billion €	0,00Billion €
D26	Ödemiş-Kiraz Conv.	Conventional	30,0	0,20Billion €	0,00Billion €	0,20Billion €	0,00Billion €	0,00Billion €
D27	Selçuk-Ortaklar-Aydın RR	Rapid Rail	39,0	0,41Billion €	0,00Billion €	0,41Billion €	0,00Billion €	0,00Billion €
D28	Aydın-Denizli RR	Rapid Rail	128,0	1,36Billion €	0,00Billion €	1,36Billion €	0,00Billion €	0,00Billion €
D29	Çetinkaya-Malatya RR	Rapid Rail	132,0	1,40Billion €	0,00Billion €	1,40Billion €	0,00Billion €	0,00Billion €
D30	Konya-Seydişehir-Antalya RR	Rapid Rail	251,0	2,67Billion €	0,00Billion €	2,67Billion €	0,00Billion €	0,00Billion €
D31	Delice-Çorum RR	Rapid Rail	100,0	1,06Billion €	0,00Billion €	1,06Billion €	0,00Billion €	0,00Billion €
D32	Sivas-Çetinkaya RR	Rapid Rail	92,0	0,98Billion €	0,00Billion €	0,98Billion €	0,00Billion €	0,00Billion €
D33	Aksaray-Konya RR	Rapid Rail	141,0	1,50Billion €	0,00Billion €	1,50Billion €	0,00Billion €	0,00Billion €
D34	Eskişehir-Afyon RR	Rapid Rail	141,0	1,50Billion €	0,00Billion €	0,00Billion €	1,50Billion €	0,00Billion €
D35	Afyon-Burdur RR	Rapid Rail	121,0	1,29Billion €	0,00Billion €	0,00Billion €	1,29Billion €	0,00Billion €
D36	Burdur-Antalya RR	Rapid Rail	163,0	1,73Billion €	0,00Billion €	0,00Billion €	1,73Billion €	0,00Billion €
D37	Kayseri-Aksaray RR	Rapid Rail	149,0	1,58Billion €	0,00Billion €	0,00Billion €	1,58Billion €	0,00Billion €
D38	Çorum-Merzifon RR	Rapid Rail	91,0	0,97Billion €	0,00Billion €	0,00Billion €	0,97Billion €	0,00Billion €
D39	Merzifon-Samsun RR	Rapid Rail	102,0	1,08Billion €	0,00Billion €	0,00Billion €	1,08Billion €	0,00Billion €
D40	Delice-Kırşehir RR	Rapid Rail	105,0	1,12Billion €	0,00Billion €	0,00Billion €	1,12Billion €	0,00Billion €
D41	Kırşehir-Aksaray RR	Rapid Rail	82,0	0,87Billion €	0,00Billion €	0,00Billion €	0,87Billion €	0,00Billion €

Label No.	Project Name	Type	Length	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
D42	Aksaray-Şereflikoçhisar RR	Rapid Rail	73,0	0,78Billion €	0,00Billion €	0,00Billion €	0,78Billion €	0,00Billion €
D43	Nurdağ-Kahramanmaraş RR	Rapid Rail	50,0	0,53Billion €	0,00Billion €	0,00Billion €	0,53Billion €	0,00Billion €
D44	Gaziantep-Şanlıurfa RR	Rapid Rail	120,0	1,28Billion €	0,00Billion €	1,28 Billion €	0,00 Billion €	0,00Billion €
D45	Şanlıurfa-Mardin RR	Rapid Rail	181,0	1,92Billion €	0,00Billion €	0,00Billion €	1,92Billion €	0,00Billion €
D46	Erzincan-Erzurum RR	Rapid Rail	173,0	1,84Billion €	0,00Billion €	0,00Billion €	1,84Billion €	0,00Billion €
D47	Erzurum-Kars RR	Rapid Rail	205,0	2,18Billion €	0,00Billion €	0,00Billion €	2,18Billion €	0,00Billion €
D48	Malatya-Elazığ RR	Rapid Rail	127,0	1,35Billion €	0,00Billion €	0,00Billion €	1,35Billion €	0,00Billion €
D49	Elazığ-Diyarbakır RR	Rapid Rail	135,0	1,43Billion €	0,00Billion €	0,00Billion €	1,43Billion €	0,00Billion €
D50	Kars-Dilucu RR	Rapid Rail	224,0	2,38Billion €	0,00Billion €	0,00Billion €	2,38Billion €	0,00Billion €
D51	Nusaybin-Cizre-Sitopi-Habur RR	Rapid Rail	133,0	1,41Billion €	0,00Billion €	0,00Billion €	0,00Billion €	1,41Billion €
D52	Siirt-Kurtalan RR	Rapid Rail	34,0	0,36Billion €	0,00Billion €	0,00Billion €	0,00Billion €	0,36Billion €
D53	Adiyaman-Göbbaşı-Kahta RR	Rapid Rail	88,0	0,94Billion €	0,00Billion €	0,00Billion €	0,00Billion €	0,94Billion €
D54	Erzurum-Rize RR	Rapid Rail	216,0	2,30Billion €	0,00Billion €	0,00Billion €	0,00Billion €	2,30Billion €
D55	Erzincan-Trabzon RR	Rapid Rail	235,0	2,50Billion €	0,00Billion €	0,00Billion €	0,00Billion €	2,50Billion €
D56	Tokat-Turhal RR	Rapid Rail	44,0	0,47Billion €	0,00Billion €	0,00Billion €	0,00Billion €	0,47Billion €
D57_1	Bandırma-Balıkesir	Rapid Rail	88,0	0,94Billion €	0,00Billion €	0,94Billion €	0,00Billion €	0,00Billion €
D57_2	Balıkesir-Bergama	Rapid Rail	98,0	1,04Billion €	0,00Billion €	1,04Billion €	0,00Billion €	0,00Billion €
D58	Railway Connection of Mines Phase 1	Conventional	188,0	1,22Billion €	0,00Billion €	1,22Billion €	0,00Billion €	0,00Billion €
D59	Railway Connection of Mines Phase 2	Conventional	265,0	1,73Billion €	0,00Billion €	0,00Billion €	1,73Billion €	0,00Billion €
D60	Railway Connection of OIZs Phase 1	Conventional	112,0	0,73Billion €	0,00Billion €	0,73Billion €	0,00Billion €	0,00Billion €
D61	Railway Connection of OIZs Phase 2	Conventional	382,0	2,49Billion €	0,00Billion €	0,00Billion €	2,49Billion €	0,00Billion €
D62	Railway Connection of Factories Phase 1	Conventional	50,0	0,33Billion €	0,00Billion €	0,33Billion €	0,00Billion €	0,00Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Type	Length	Investment Cost Timeline				
				Billion €	2019-2023	2024-2029	2030-2035	2036-2053
D63	Railway Connection of Factories Phase 2	Conventional	119,0	0,78Billion €	0,00Billion €	0,00Billion €	0,78Billion €	0,00Billion €
D64_1	Railway Connection of Ports Phase 1	Conventional	104,0	0,68Billion €	0,00Billion €	0,68Billion €	0,00Billion €	0,00Billion €
D64_2	Railway Connection of Ports Phase 2	Conventional	104,0	0,68Billion €	0,00Billion €	0,00Billion €	0,68Billion €	0,00Billion €
	Toplam		10.830	101,13 Billion €	12,15Billion €	45,65 Billion €	35,36 Billion €	7,97Billion €

Label No.	Project Name	Investment Cost Timeline				
		Billion €	2019-2023	2024-2029	2030-2035	2036-2053
L1	Tekirdağ Dry Port	0,11 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €	0,00 Billion €
L2	İskenderun Dry Port	0,06 Billion €	0,00 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €
L3	Mersin Dry Port	0,11 Billion €	0,00 Billion €	0,00 Billion €	0,11 Billion €	0,00 Billion €
L4	Kocaeli Dry Port	0,13 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €	0,13 Billion €
L5	Mersin International Port EMH1 and EMH2 (Eastern Mediterranean Hub) Expansion	0,49 Billion €	0,49 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L6	Mersin HUB Port	3,87 Billion €	0,00 Billion €	3,87 Billion €	0,00 Billion €	0,00 Billion €
L7	Çandarlı Port	0,14 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L8	Filyos Port	0,22 Billion €	0,22 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L9	Karasu Port	0,20 Billion €	0,09 Billion €	0,04 Billion €	0,07 Billion €	0,00 Billion €
L10	TKİM Container Port	0,69 Billion €	0,36 Billion €	0,07 Billion €	0,26 Billion €	0,00 Billion €
L11	STAR ENERGY Port	0,20 Billion €	0,14 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
L12	ETKİ LNG Regasification Terminal	0,20 Billion €	0,20 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L13	Beleport Container Port	0,20 Billion €	0,14 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
L14	Maklıman Ro-Ro Port	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L15	Horizon Enerji Port	0,30 Billion €	0,22 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €
L16	Saflıport Derince	0,18 Billion €	0,18 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L17	Cenâl Enerji Port	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L18	Socar Power Port	1,12 Billion €	0,00 Billion €	1,12 Billion €	0,00 Billion €	0,00 Billion €
L19	Ege Çelik Horozgediği Port	0,07 Billion €	0,00 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
L20	Sönmez Cement Pier	0,03 Billion €	0,03 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L21	Galataport	1,76 Billion €	1,76 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L22	Tosyalı Holding Erzincan/Burnaz Port	0,85 Billion €	0,85 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €



ANNEX 1 – INVESTMENT PROGRAMS

Label No.	Project Name	Investment Cost Timeline				
		Billion €	2019-2023	2024-2029	2030-2035	2036-2053
L23	Tosyalı Holding Sarıseki/Azganlık Port	0,15 Billion €	0,15 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L24	Atakaş Port	0,15 Billion €	0,15 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L25	Ekol Ro-Ro Port	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
L26	İzmir Alsancak Port Expansion	0,38 Billion €	0,00 Billion €	0,00 Billion €	0,38 Billion €	0,00 Billion €
L27	Expansion of Container Ports	1,01 Billion €	0,20 Billion €	0,27 Billion €	0,54 Billion €	0,00 Billion €
L28	Expansion of Liquid Bulk Cargo Handling Port Facilities	0,86 Billion €	0,22 Billion €	0,26 Billion €	0,39 Billion €	0,00 Billion €
L29	Expansion of Bulk Handling Port Facilities	0,43 Billion €	0,12 Billion €	0,16 Billion €	0,15 Billion €	0,00 Billion €
L30	Expansion of Port Facilities with Cargo Handling	2,50 Billion €	0,69 Billion €	0,86 Billion €	0,95 Billion €	0,00 Billion €
L31	Istanbul Canal	12,16 Billion €	0,00 Billion €	12,16 Billion €	0,00 Billion €	0,00 Billion €
	Toplam	28,73 Billion €	6,48 Billion €	19,28 Billion €	2,84 Billion €	0,13 Billion €



Label No.	Project Name	Capacity (million Passenger/year)	Investment Cost Timeline				
			Billion €	2019-2023	2024-2029	2030-2035	2036-2053
H1	Çukurova Local Airport	30	0,38 Billion €	0,31 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €
H2	Rize-Artvin Airport	3	0,43 Billion €	0,43 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
H3	Tokat Airport	2	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
H4	Gümüşhan Airport	2	0,07 Billion €	0,07 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
H5	Yozgat Airport	2	0,08 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
H6	Istanbul Airport – Phase 4	150	3,19 Billion €	0,00 Billion €	3,19 Billion €	0,00 Billion €	0,00 Billion €
H7	Antalya Airport	70	0,68 Billion €	0,00 Billion €	0,41 Billion €	0,27 Billion €	0,00 Billion €
H8	Esenboğa Airport Expansion	30	0,14 Billion €	0,00 Billion €	0,14 Billion €	0,00 Billion €	0,00 Billion €
H9	Trabzon Airport Expansion	10	0,27 Billion €	0,00 Billion €	0,27 Billion €	0,00 Billion €	0,00 Billion €
Toplam			5,29 Billion €	0,96 Billion €	4,06 Billion €	0,27 Billion €	0,00 Billion €



Label No.	Project Name	Year	Investment Cost Timeline				
			Total	2019-2023	2024-2029	2030-2035	2036-2053
LJ14	Iyidere Rize Logistics Center	2020-2024	0,22 Billion €	0,17 Billion €	0,06 Billion €	0,00 Billion €	0,00 Billion €
LJ15	Sivas Logistics Center	2016-2022	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ16	Karaman Logistics Center	2019-2023	0,02 Billion €	0,02 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ17	Tatvan Bitlis Logistics Center	2019-2023	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ18	Çerkezköy Tekirdağ Logistics Center	2020-2023	0,04 Billion €	0,04 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ19	Bozüyük Bilecik Logistics Center	2020-2023	0,08 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ20	Boğazköprü Kayseri Logistics Center	2020-2023	0,05 Billion €	0,05 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ21	Yeşilbayır İstanbul Logistics Center	2019-2024	0,04 Billion €	0,03 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €
LJ22	Mardin Logistics Center	2019-2023	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ23	Habur Logistics Center	2011-2027	0,01 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ24	Kemalpaşa Logistics Center	2012-2023	0,09 Billion €	0,09 Billion €	0,00 Billion €	0,00 Billion €	0,00 Billion €
LJ25	Filyos Logistics Center	2023-2026	0,01 Billion €	0,00 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €
LJ26	Çandarlı Logistics Center	2023-2029	0,01 Billion €	0,00 Billion €	0,01 Billion €	0,00 Billion €	0,00 Billion €
	Toplam		0,64 Billion €	0,56 Billion €	0,08 Billion €	0,00 Billion €	0,00 Billion €



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1. SOCIO-ECONOMIC PROFILE



POPULATION DENSITY (2019)



0 50 100 150 km



SAMSUN

ORDU

GİRESUN

TRABZON

RİZE

ARTVİN

ARDAHAN

AMASYA

TOKAT

GÜMÜŞHANE

BAYBURT

KARS

SİVAS

ERZİNCAN

ERZURUM

İĞDIR

AGRI

TUNCELİ

BİNGÖL

ELAZIĞ

MUŞ

VAN

MALATYA

BİTLİS

DIYARBAKIR

BATMAN

SİİRT

KAHRAMANMARAŞ

ADYAMAN

ŞIRNAK

HAKKARİ

MARDİN

OSMANIYE

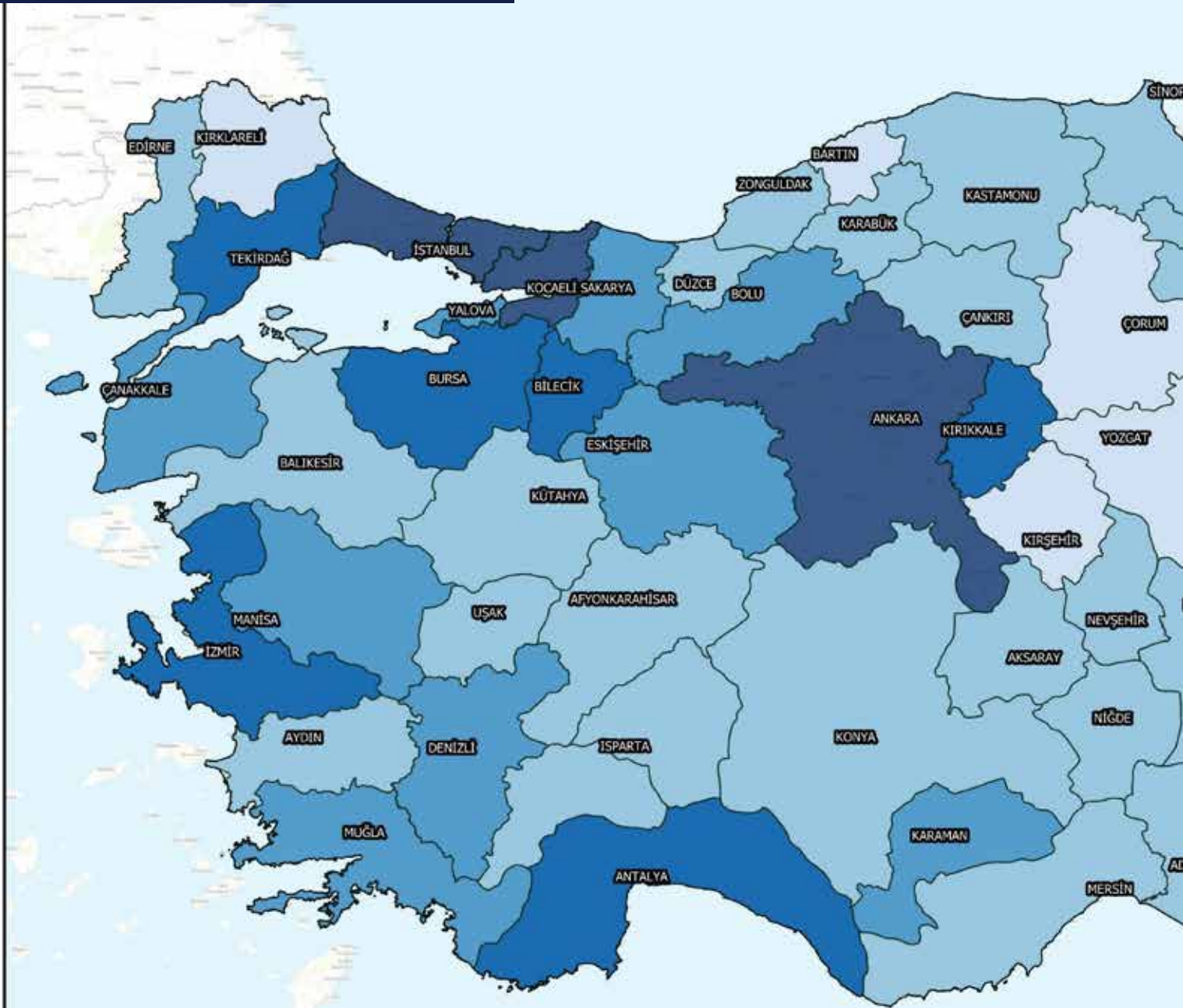
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ŞANLIURFA

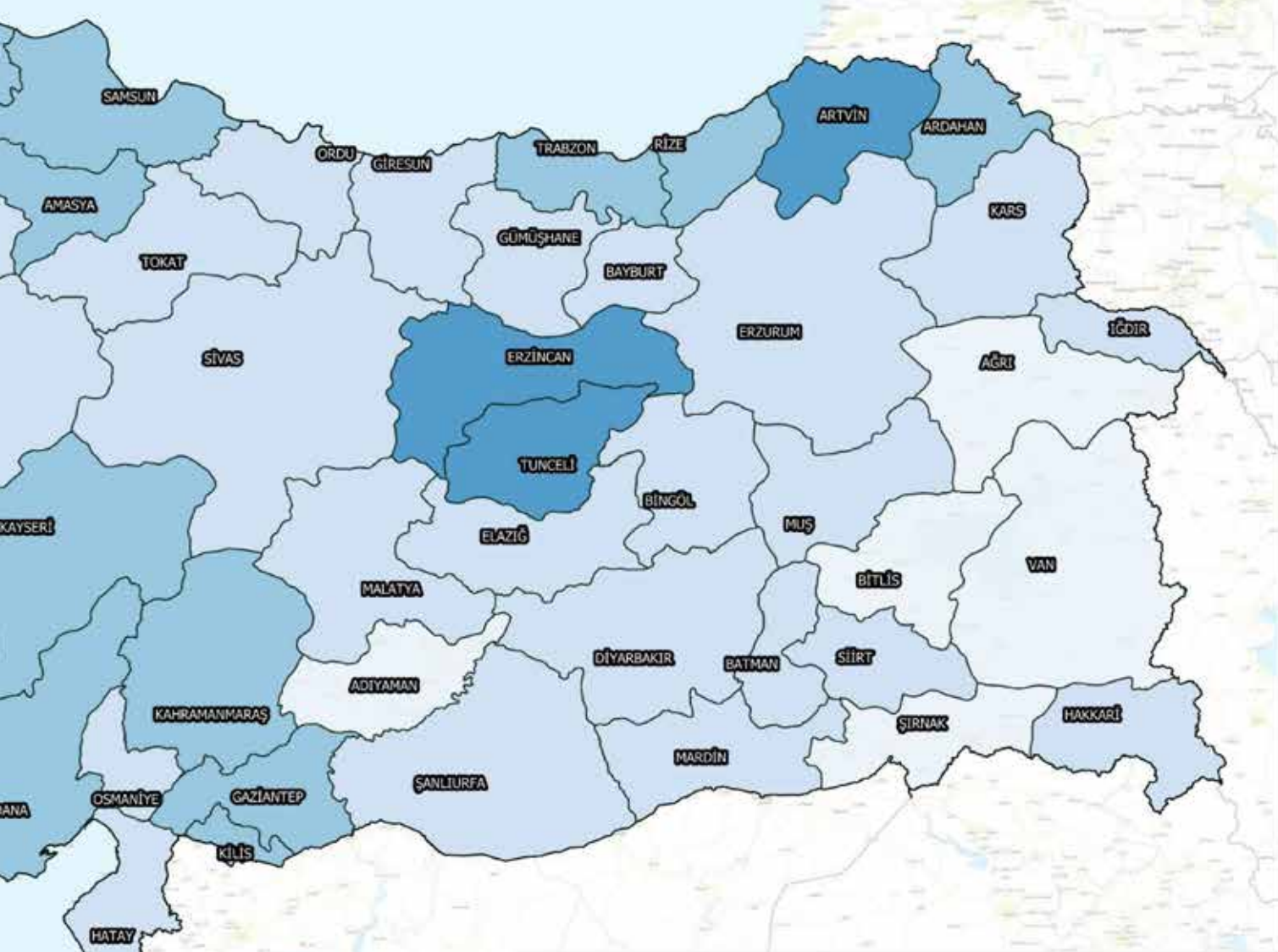
KİLİS

HATAY

GROSS DOMESTIC PRODUCT (GDP) (2019)



0 50 100 150 km



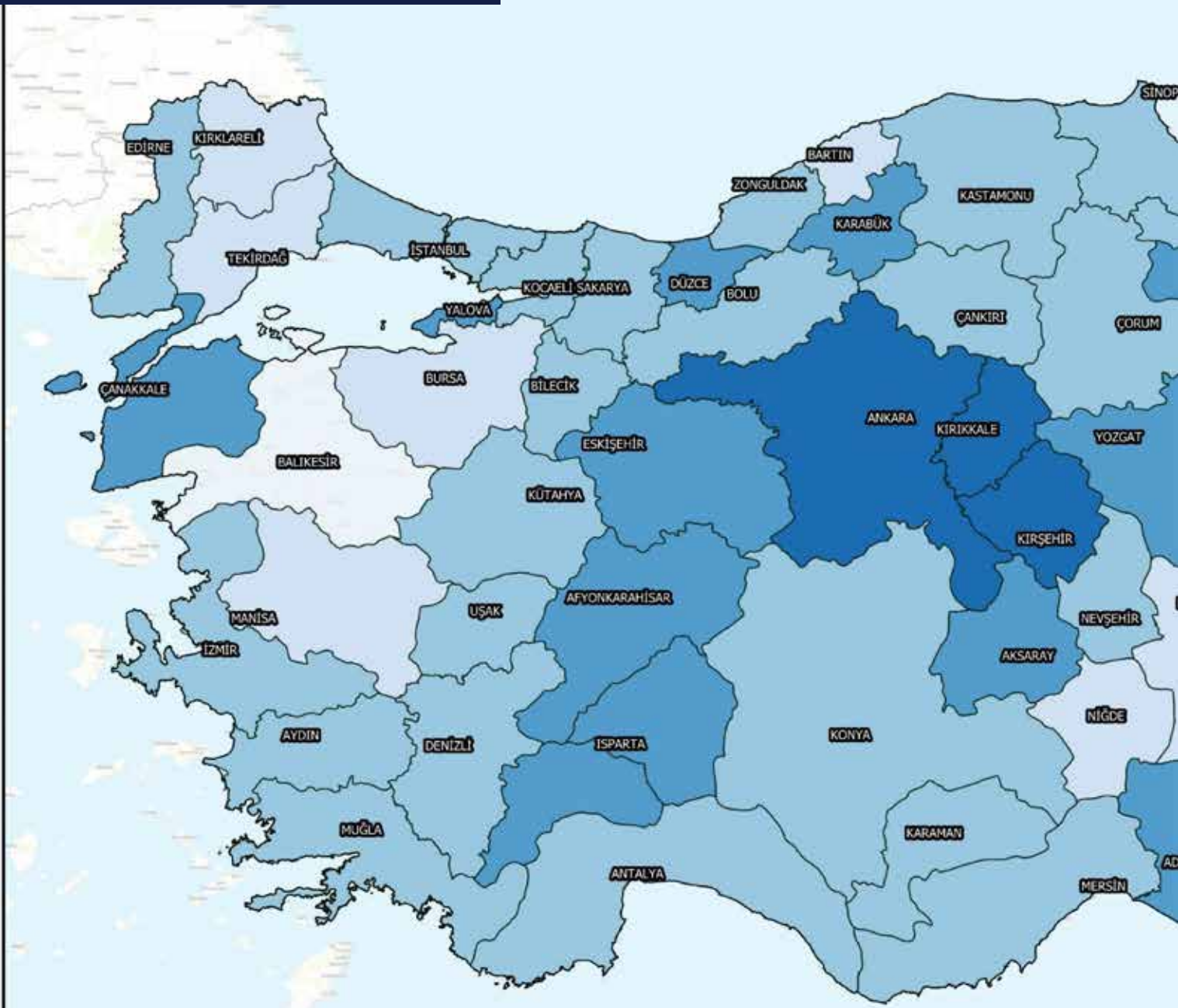
LEGEND

Per-Capita GDP (₺) - 2019

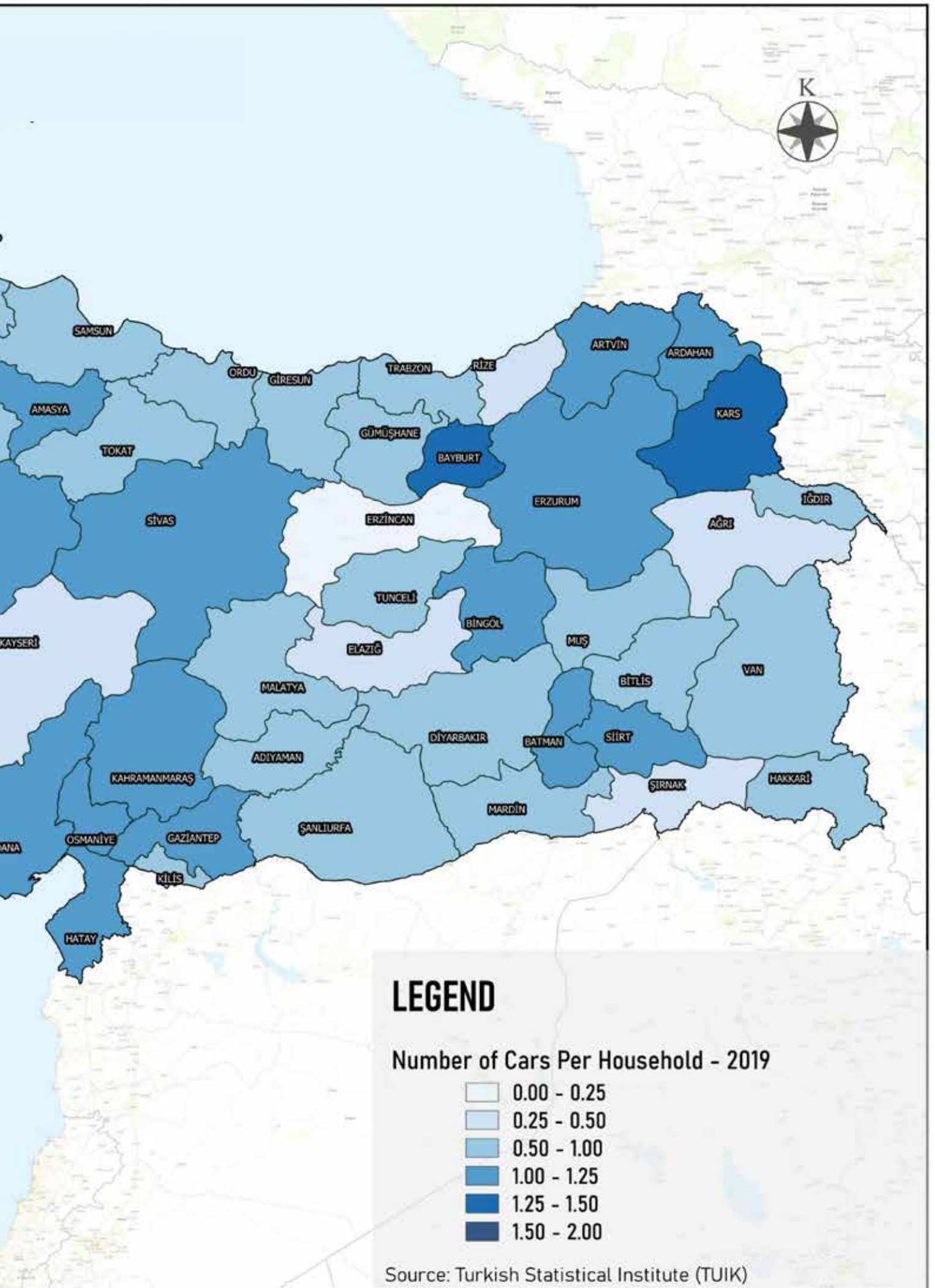
- 2.500 - 4.000
- 4.000 - 6.000
- 6.000 - 8.000
- 8.000 - 10.000
- 10.000 - 12.500
- 12.500 - 15.285

Source: Turkish Statistical Institute (TUIK)

NUMBER OF CARS PER HOUSEHOLD (2019)



0 50 100 150 km



SAMSUN

ORDU

GİRESUN

TRABZON

RİZE

ARTVİN

ARDAHAN

AMASYA

TOKAT

GÜMÜŞHANE

BAYBURT

KARS

SİVAS

ERZİNCAN

ERZURUM

İĞDIR

AĞRI

TUNCELİ

BİNGÖL

ELAZIĞ

MUŞ

BİTLİS

VAN

MALATYA

DIYARBAKIR

BATMAN

SİİRT

KAHRAMANMARAŞ

ADIYAMAN

MARDİN

ŞİRNAK

HAKKARİ

OSMANİYE

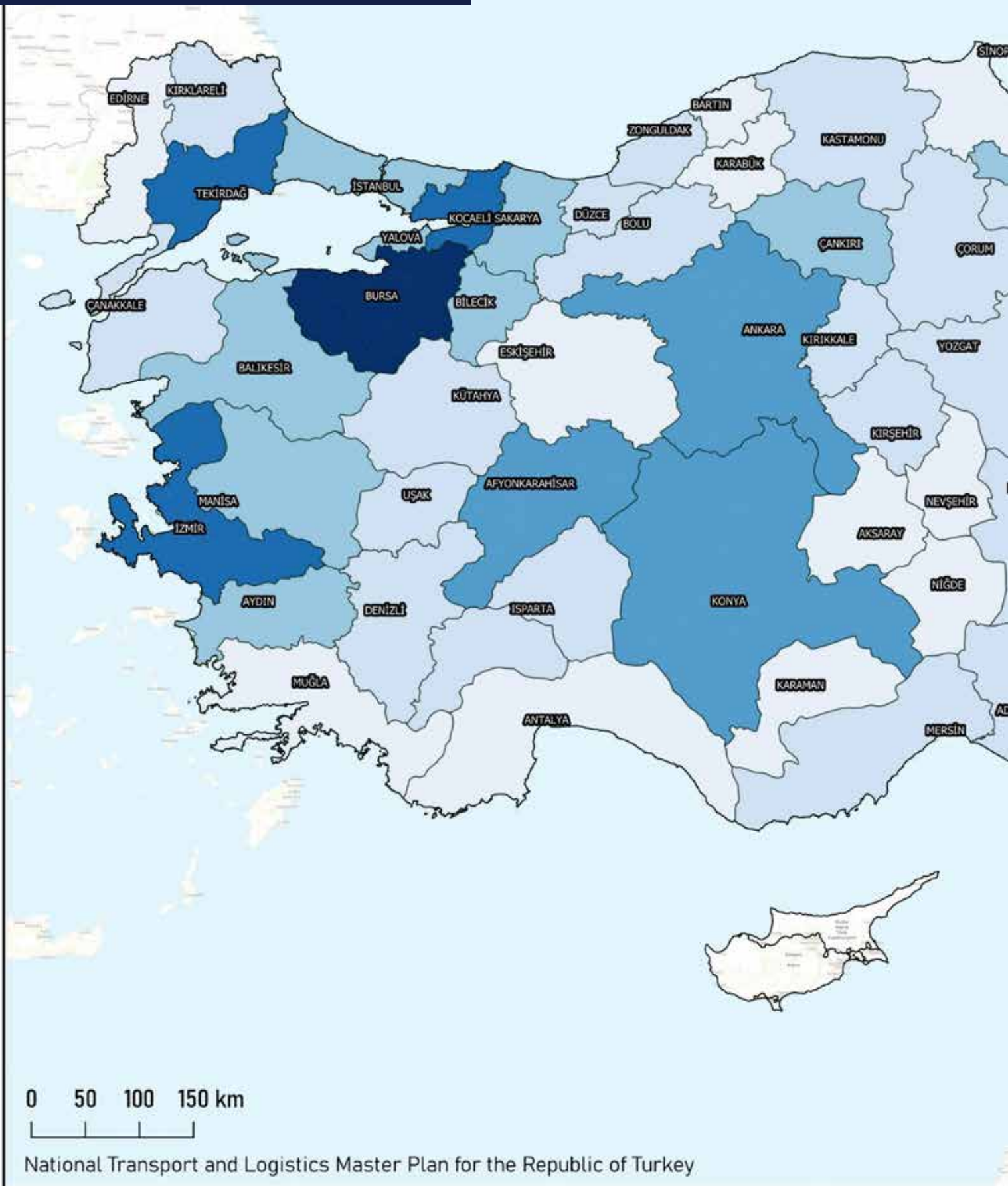
GAZİANTEP

ŞANLIURFA

KİLİS

HATAY

NUMBER OF ORGANIZED INDUSTRIAL ZONES (OIZ) PER DISTRICT (2019)



0 50 100 150 km





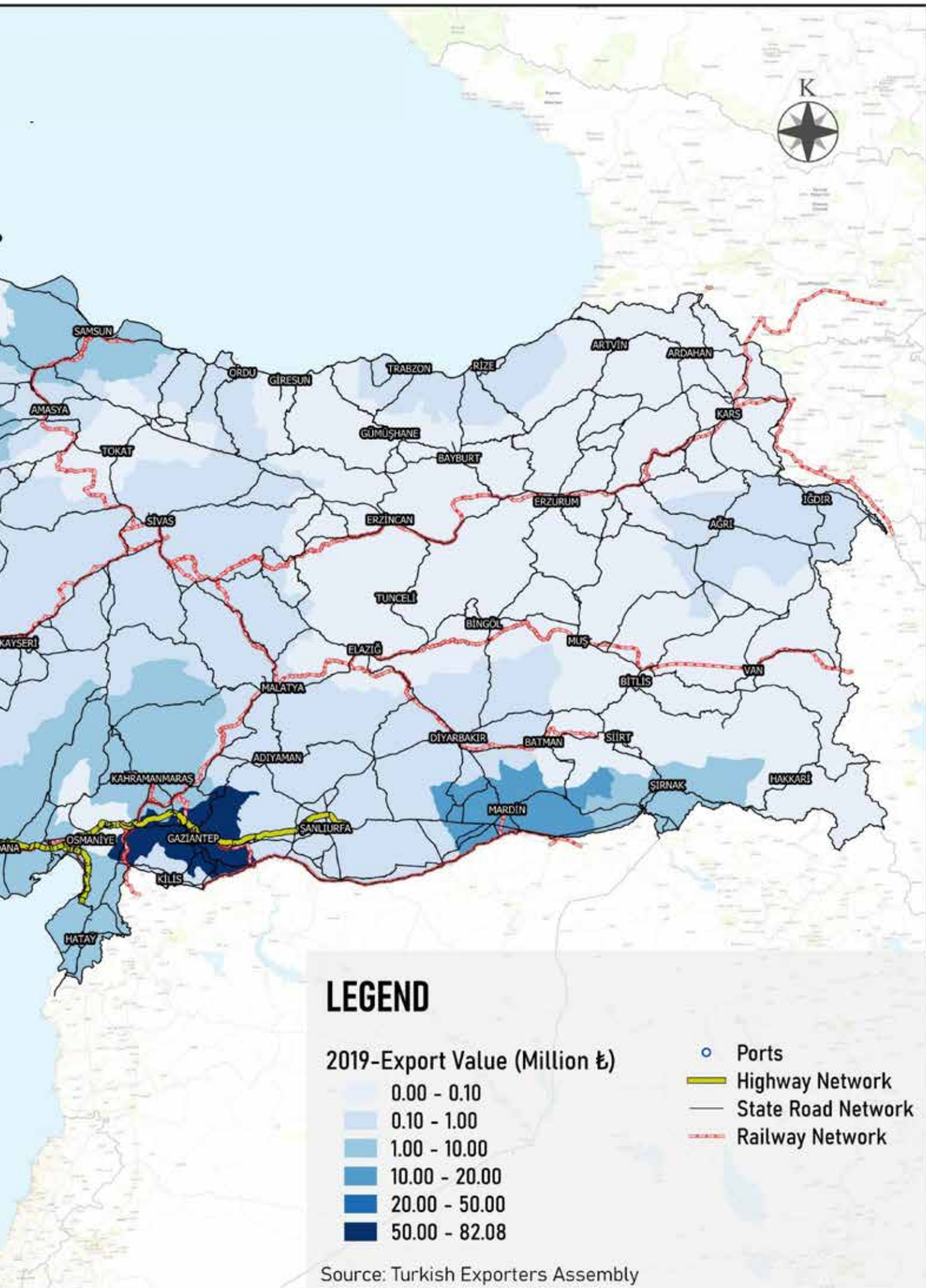
2. EXPORT: AGRICULTURE, FORESTRY AND AGRO-INDUSTRY PRODUCTS



CEREALS, PULSES, OLEAGINOUS SEEDS AND PRODUCTS EXPORT (2019)



0 50 100 150 km



LEGEND

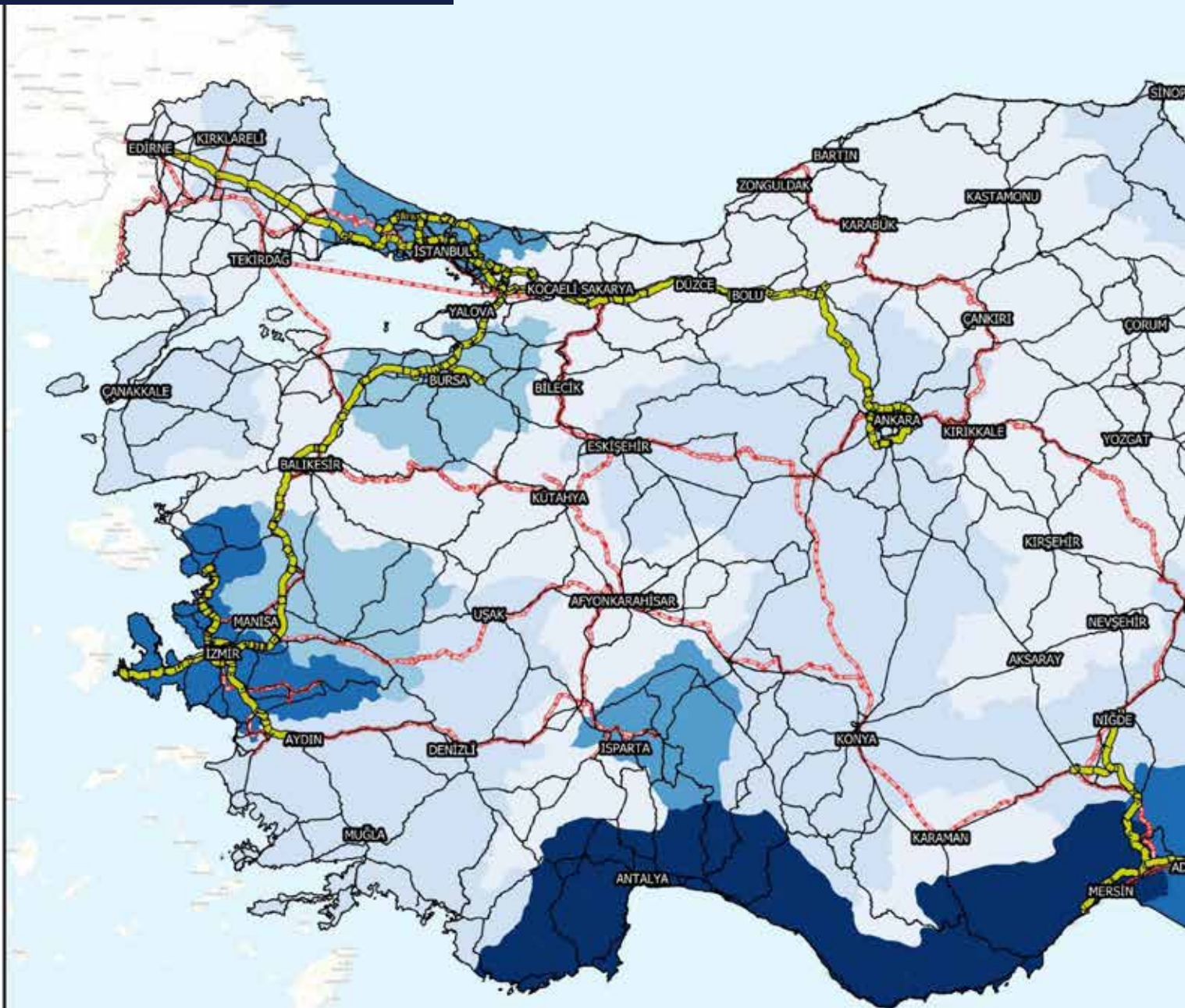
2019-Export Value (Million ₺)

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- 0.10 - 1.00
- 1.00 - 10.00
- 10.00 - 20.00
- 20.00 - 50.00
- 50.00 - 82.08

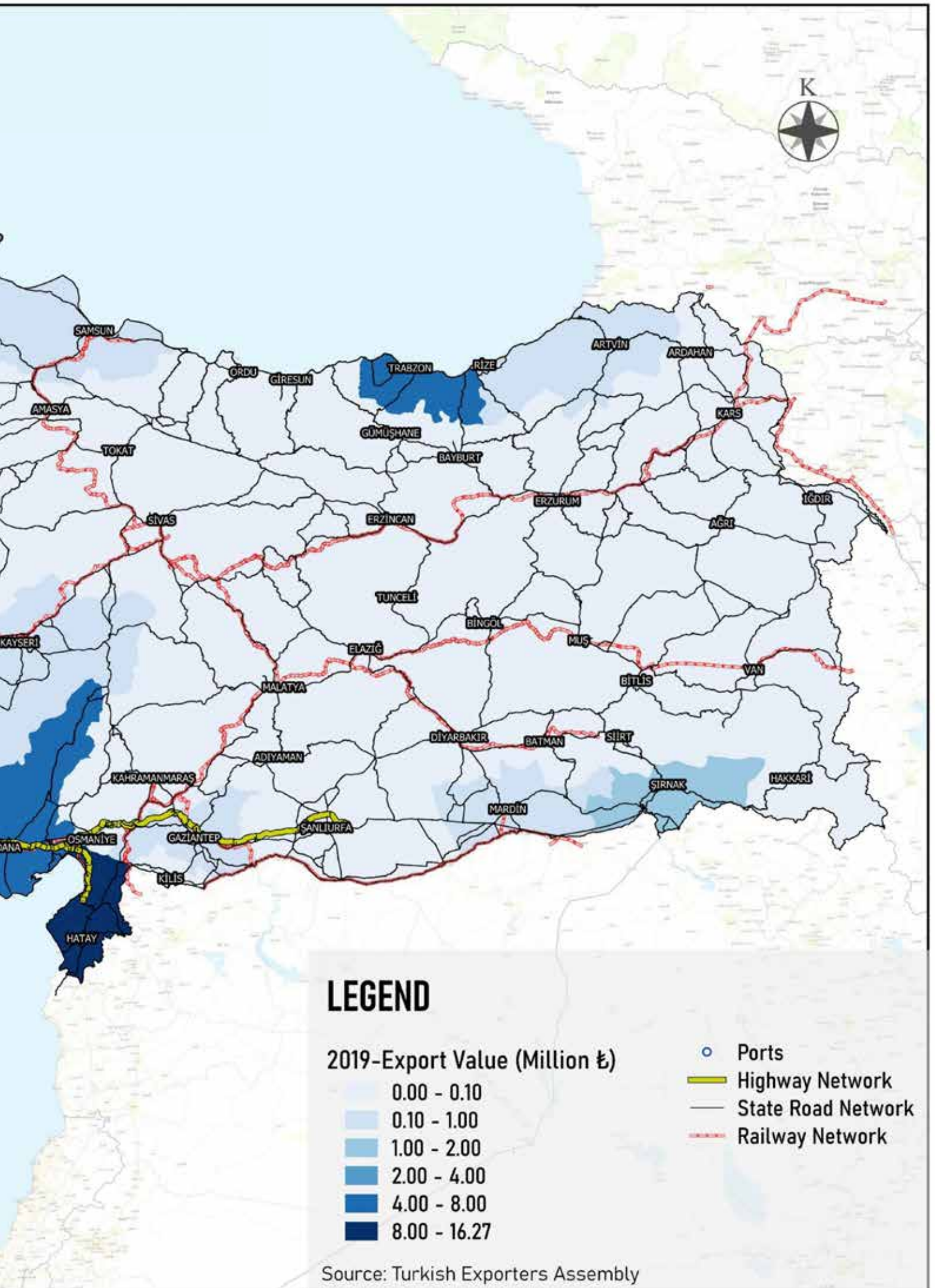
- Ports
- Highway Network
- State Road Network
- - - Railway Network

Source: Turkish Exporters Assembly

FRESH FRUIT AND VEGETABLES EXPORT (2019)



0 50 100 150 km



LEGEND

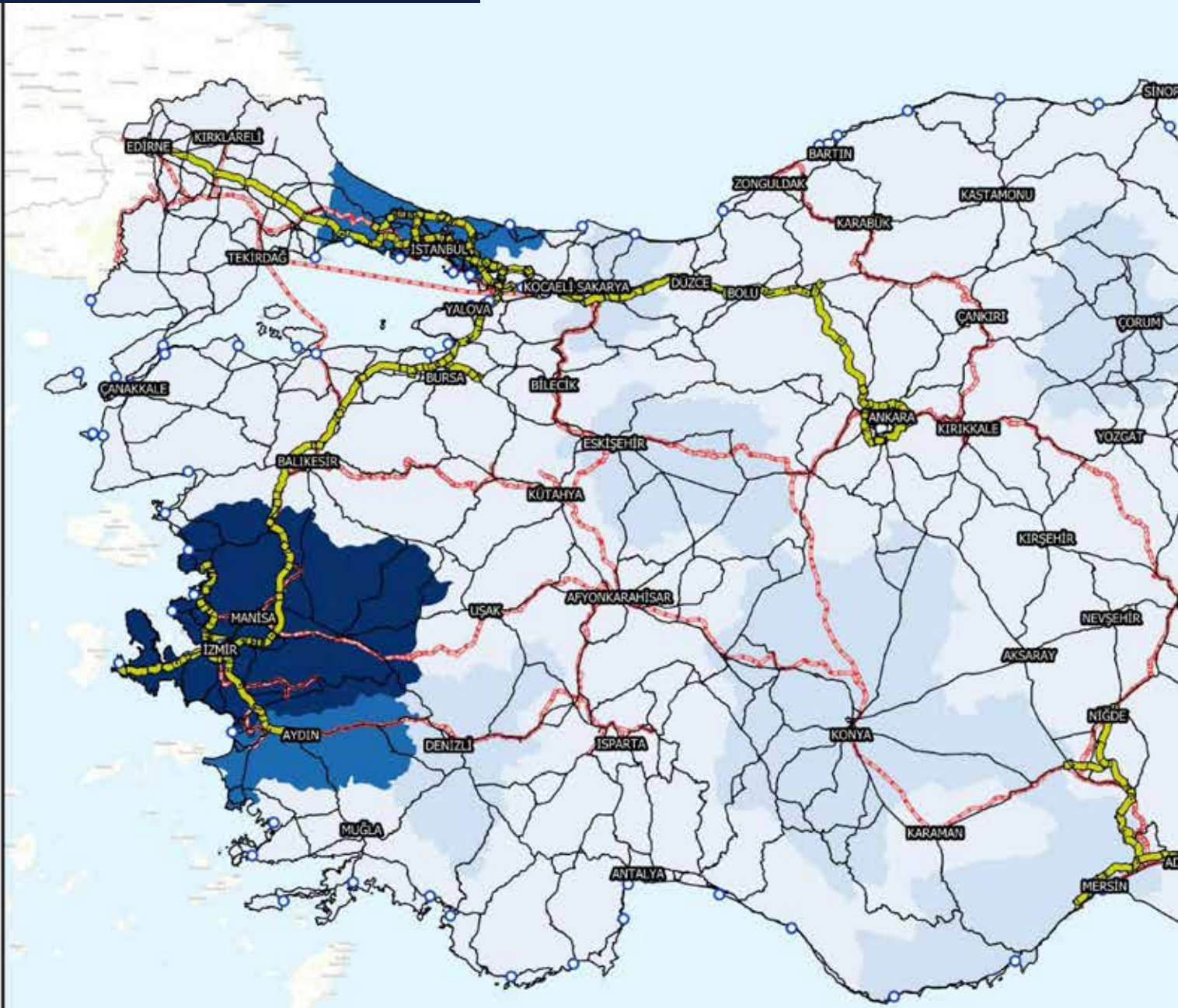
2019-Export Value (Million ₺)

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- 1.00 - 2.00
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- 4.00 - 8.00
- 8.00 - 16.27

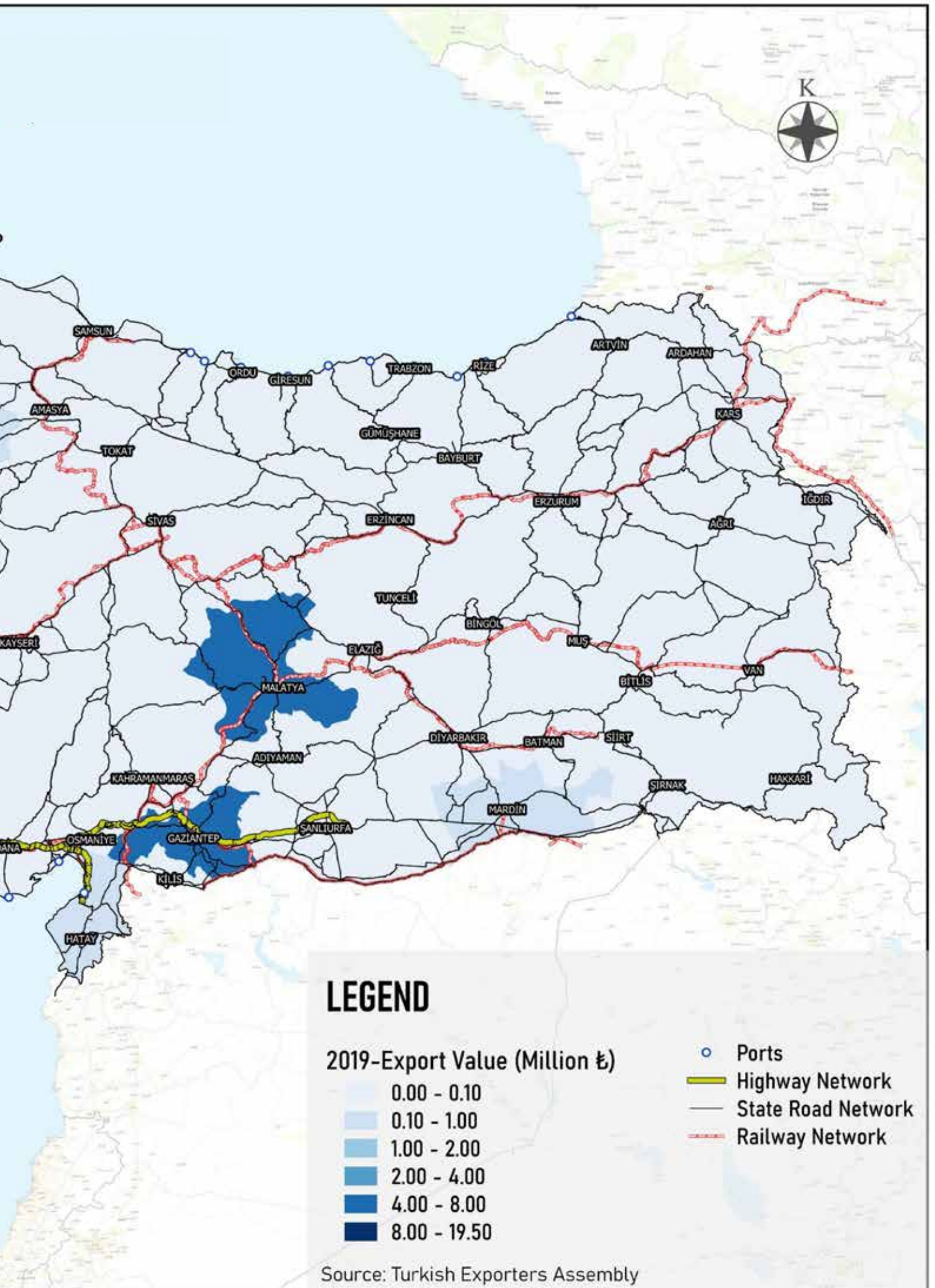
- Ports
- Highway Network
- State Road Network
- Railway Network

Source: Turkish Exporters Assembly

DRY FRUIT AND PRODUCTS EXPORT (2019)

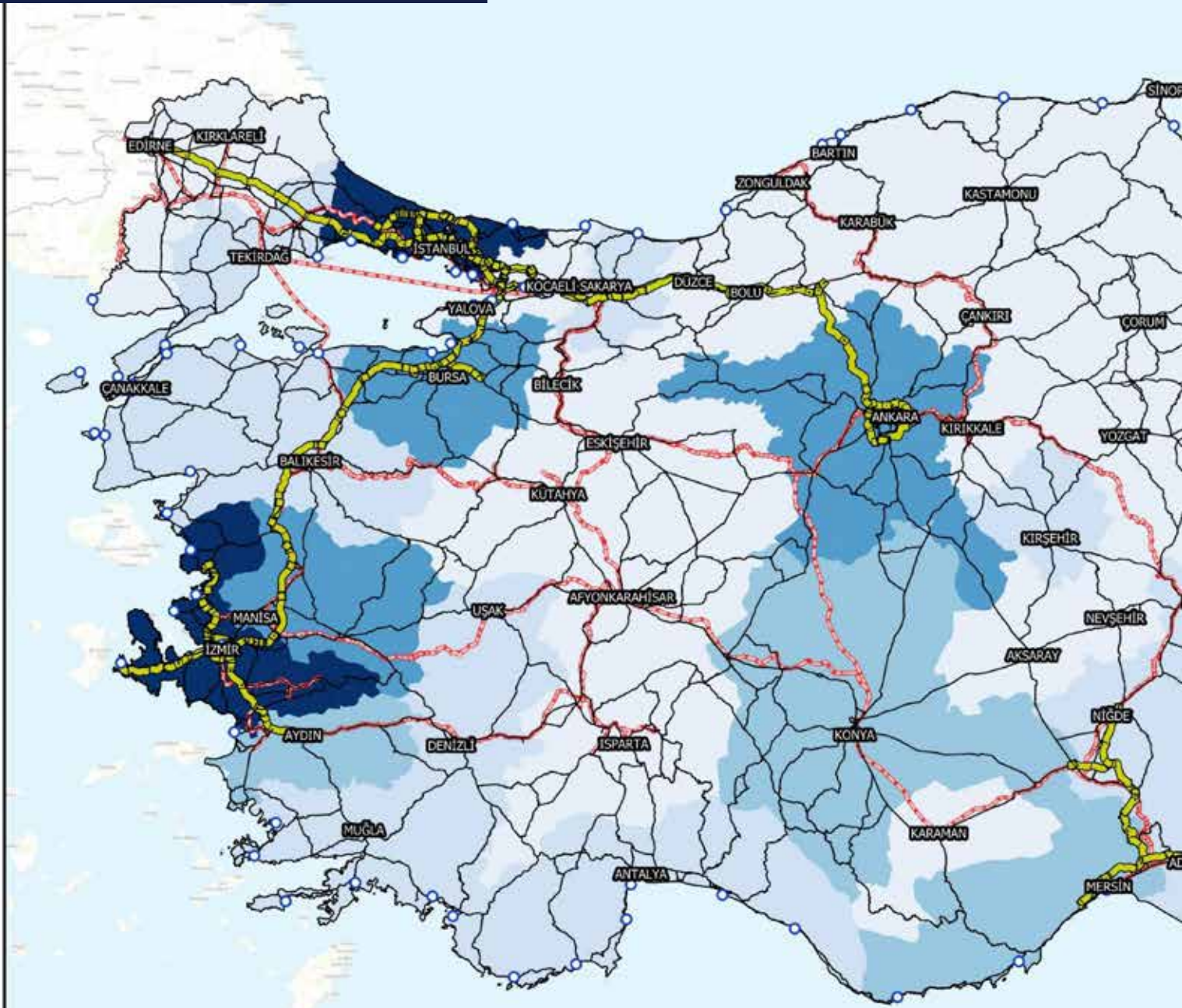


0 50 100 150 km

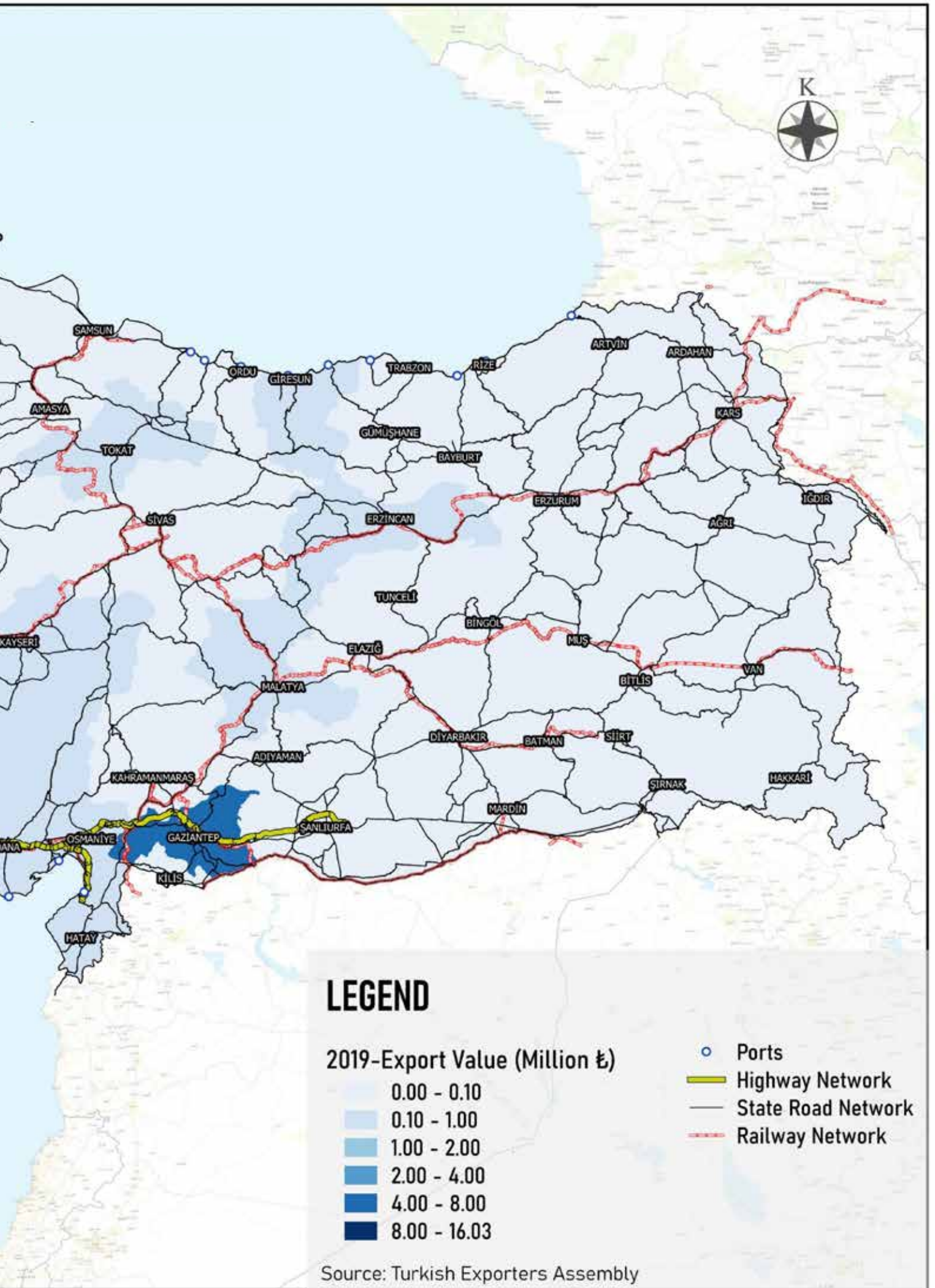


Source: Turkish Exporters Assembly

FRUIT AND VEGETABLE PRODUCTS EXPORT (2019)



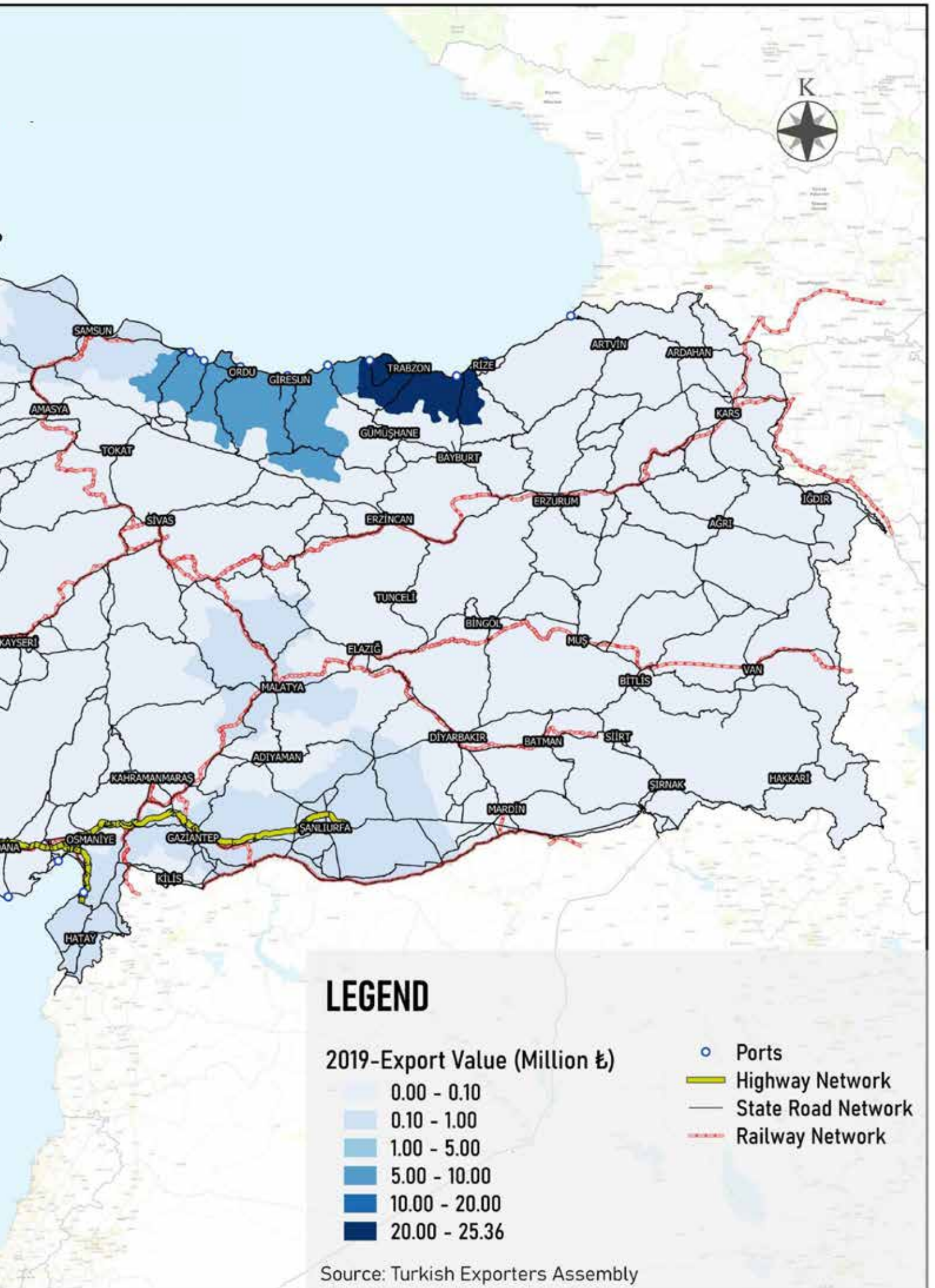
0 50 100 150 km



Source: Turkish Exporters Assembly

NUT AND NUT PRODUCTS EXPORT (2019)





LEGEND

2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 1.00
- 1.00 - 5.00
- 5.00 - 10.00
- 10.00 - 20.00
- 20.00 - 25.36

- Ports
- Highway Network
- State Road Network
- - - Railway Network

Source: Turkish Exporters Assembly

TOBACCO EXPO (2019)



0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey



LEGEND

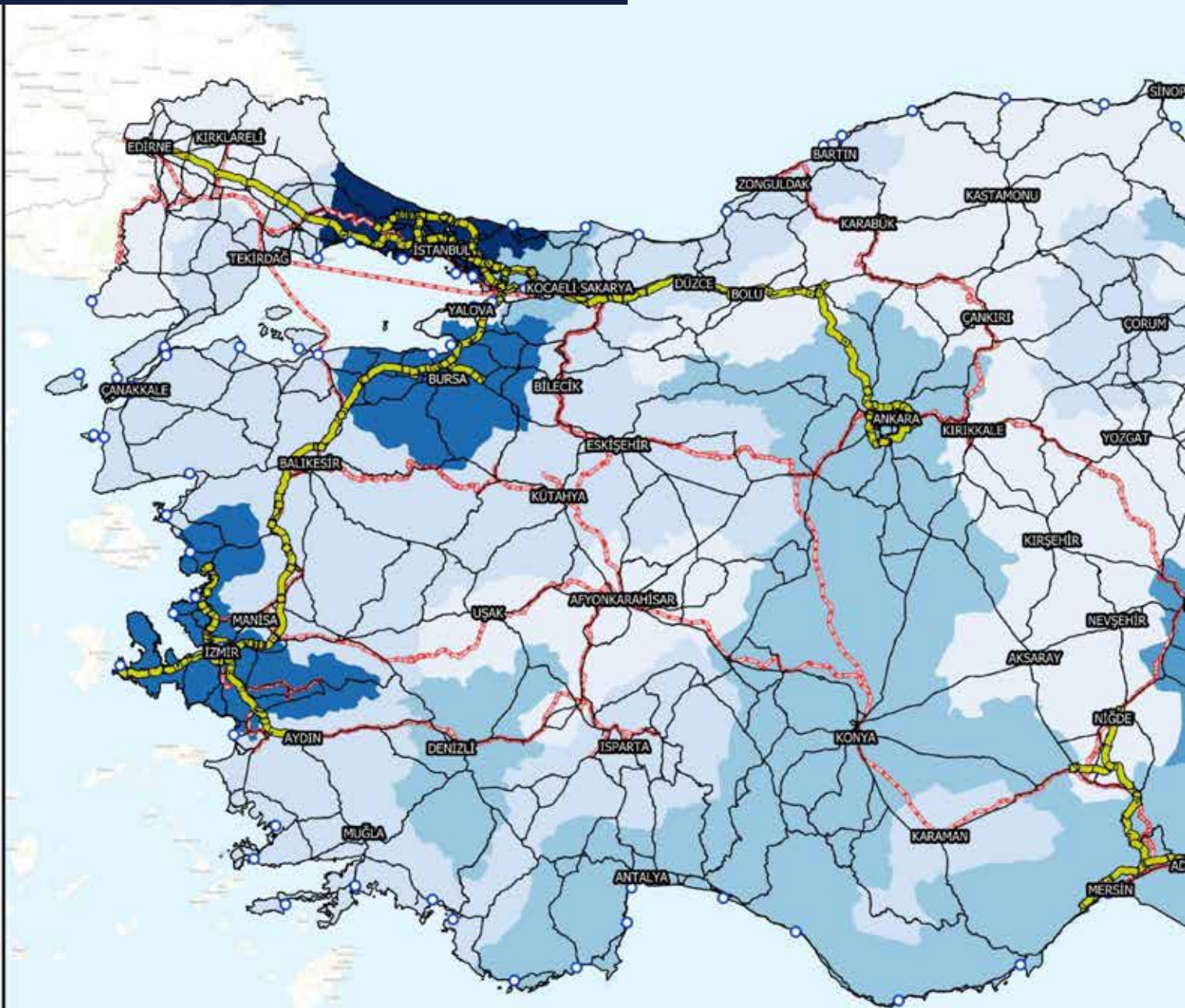
2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 1.00
- 1.00 - 5.00
- 5.00 - 10.00
- 10.00 - 15.00
- 15.00 - 25.86

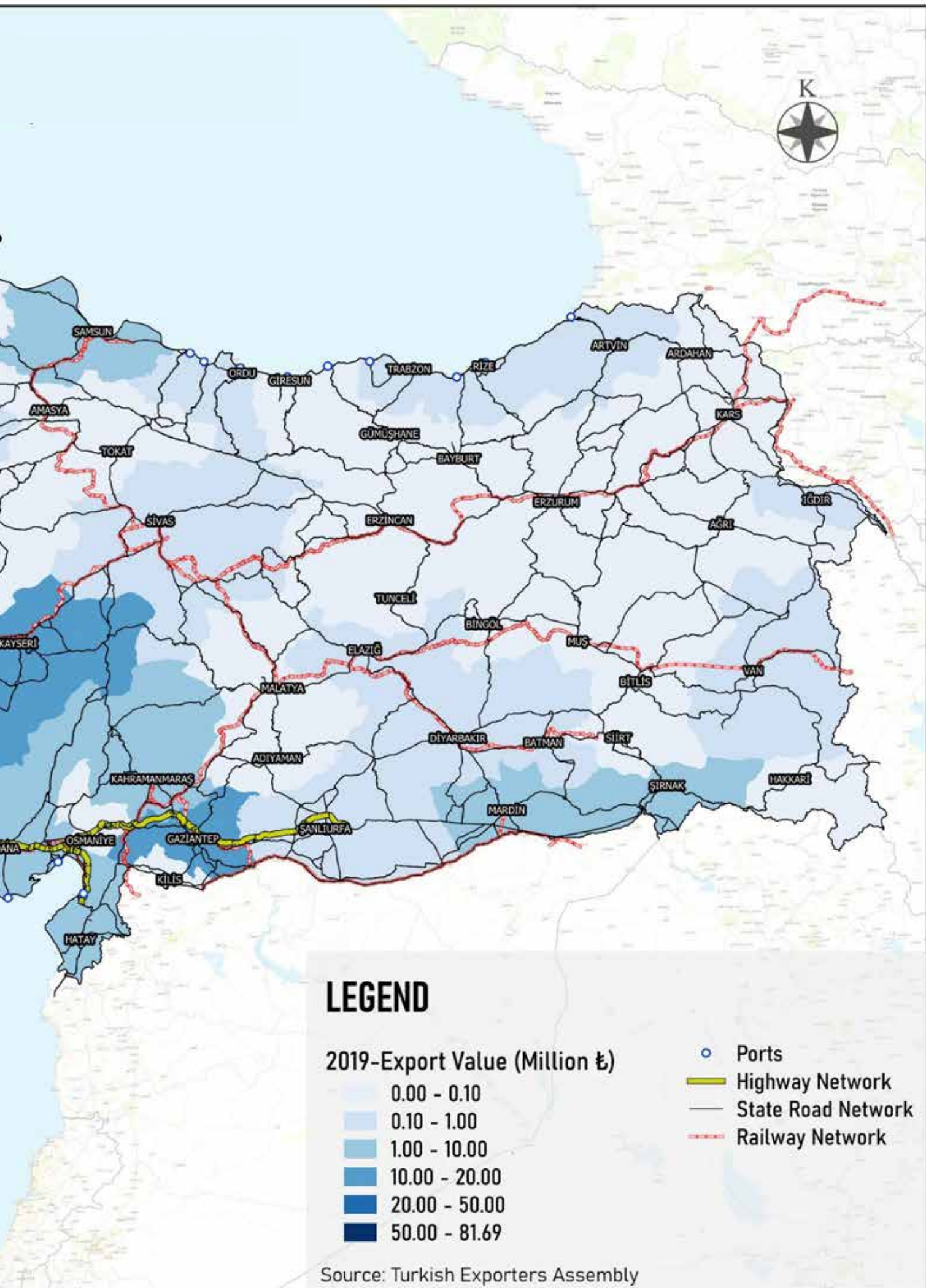
- Ports
- Highway Network
- State Road Network
- Railway Network

Source: Turkish Exporters Assembly

FURNITURE, PAPER AND FORESTRY EXPORT (2019)

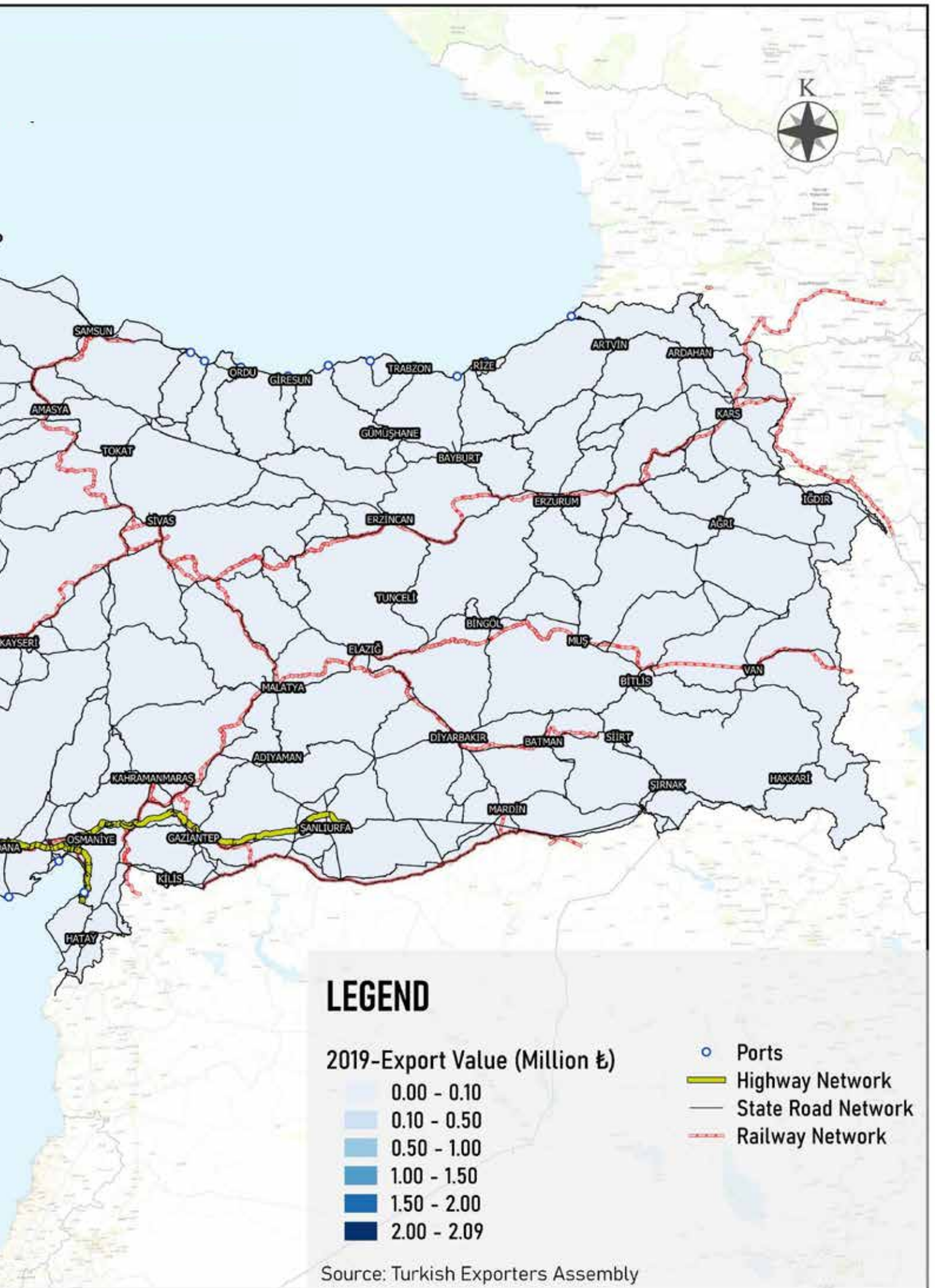


National Transport and Logistics Master Plan for the Republic of Turkey



FOLIAGE PLANTS AND PRODUCTS EXPORT (2019)





LEGEND

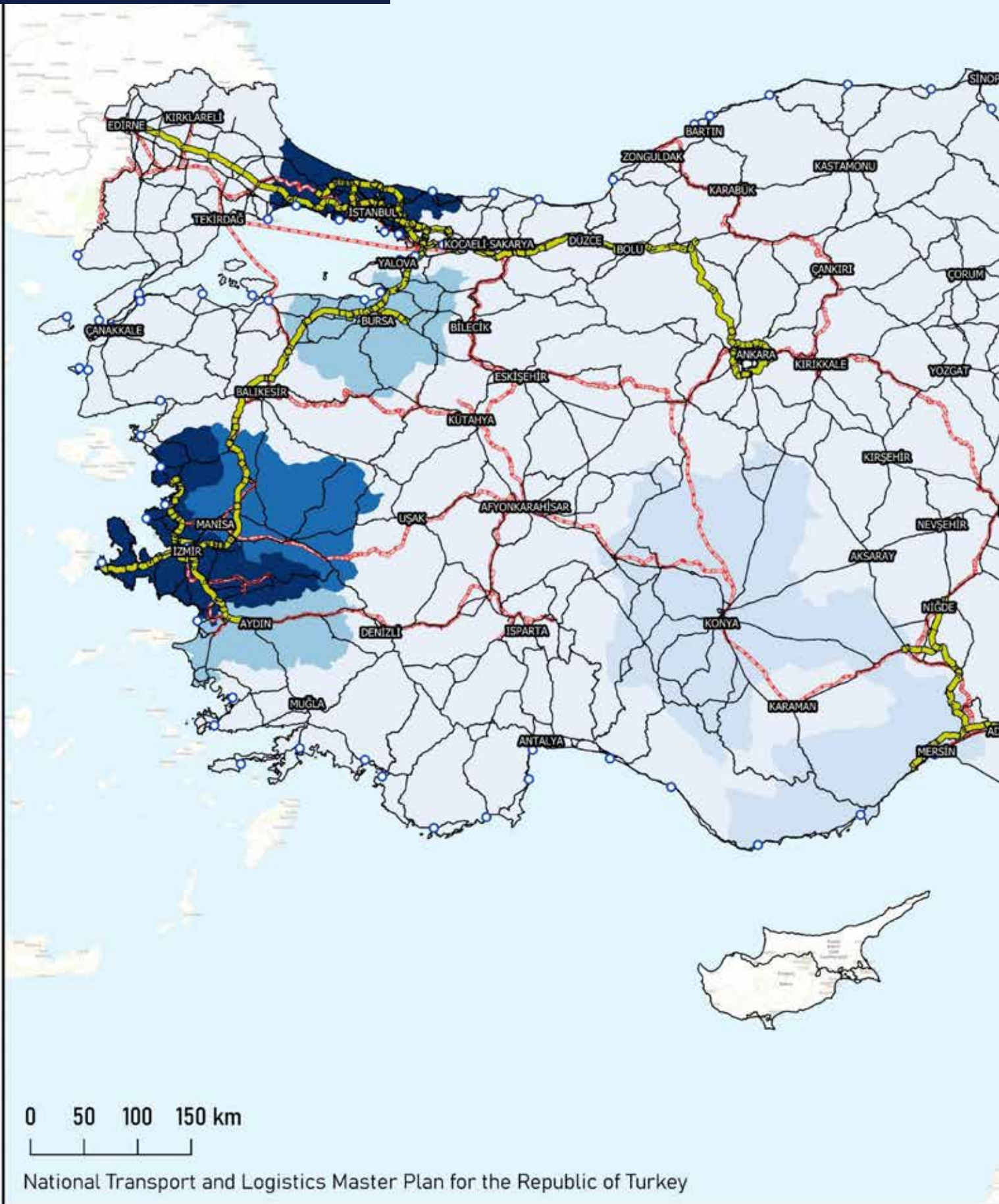
2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- 2.00 - 2.09

- Ports
- Highway Network
- State Road Network
- - - Railway Network

Source: Turkish Exporters Assembly

OLIVE AND OLIVE OIL EXPORT (2019)





LEGEND

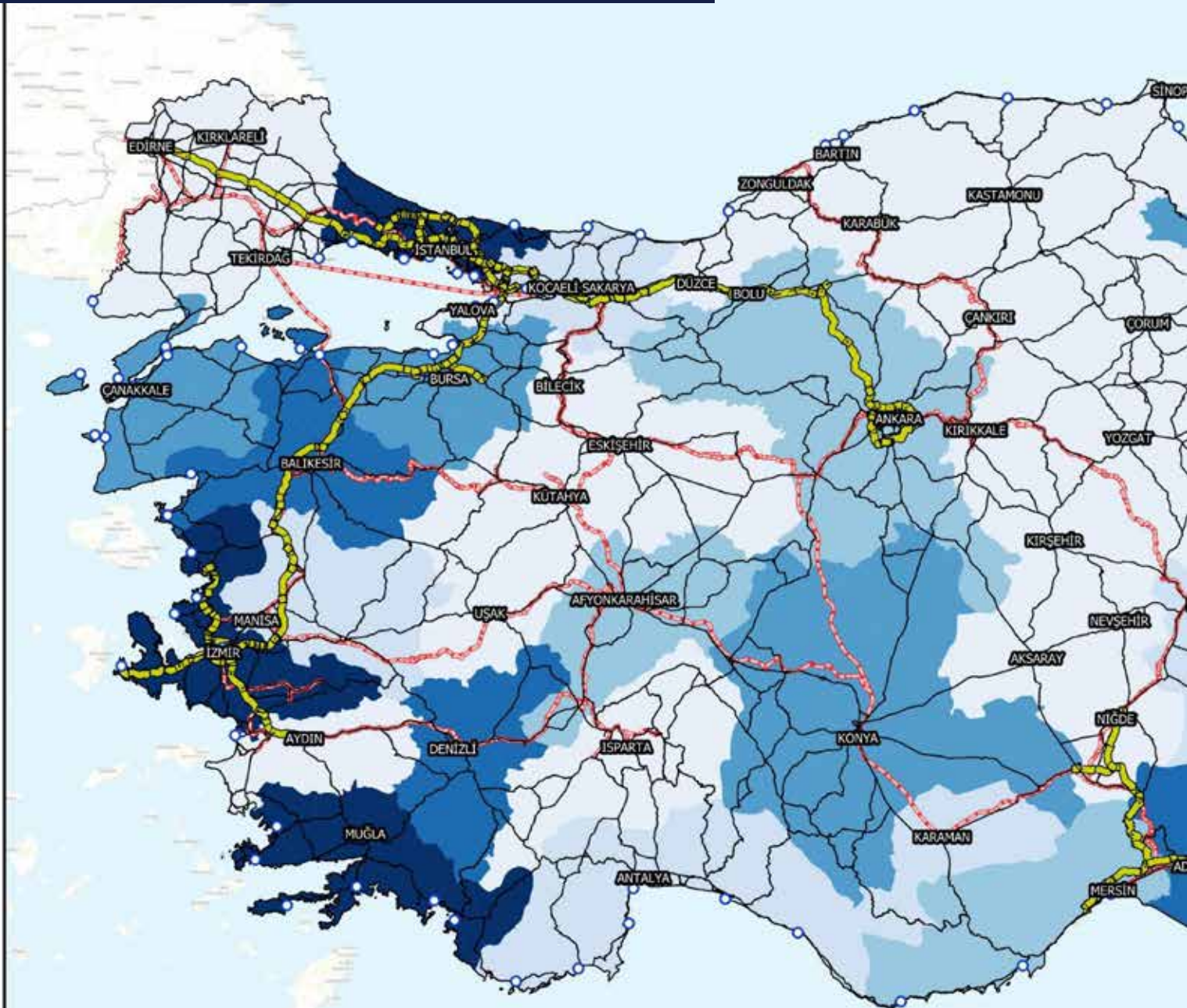
2019-Export Value (Million ₺)



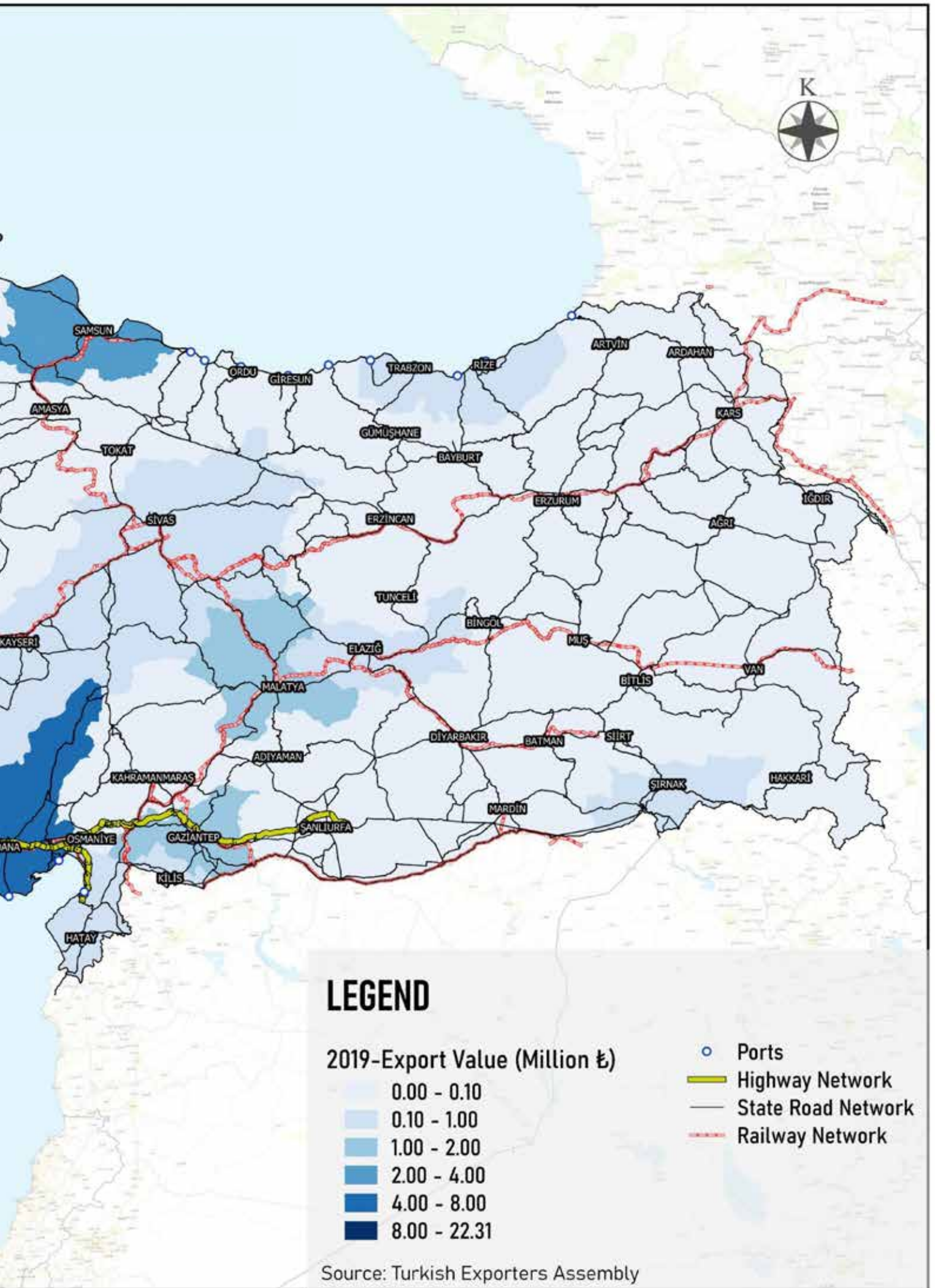
- Ports
- Highway Network
- State Road Network
- - - Railway Network

Source: Turkish Exporters Assembly

SEAFOOD AND ANIMAL PRODUCTS EXPORT (2019)



National Transport and Logistics Master Plan for the Republic of Turkey



LEGEND

2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 1.00
- 1.00 - 2.00
- 2.00 - 4.00
- 4.00 - 8.00
- 8.00 - 22.31

- Ports
- Highway Network
- State Road Network
- Railway Network

Source: Turkish Exporters Assembly



3. EXPORT:
CONSTRUCTION
MATERIALS, INDUSTRY
AND MINING PRODUCTS



LEATHER AND LEATHER PRODUCTS EXPORT (2019)





LEGEND

2019-Export Value (Million ₺)

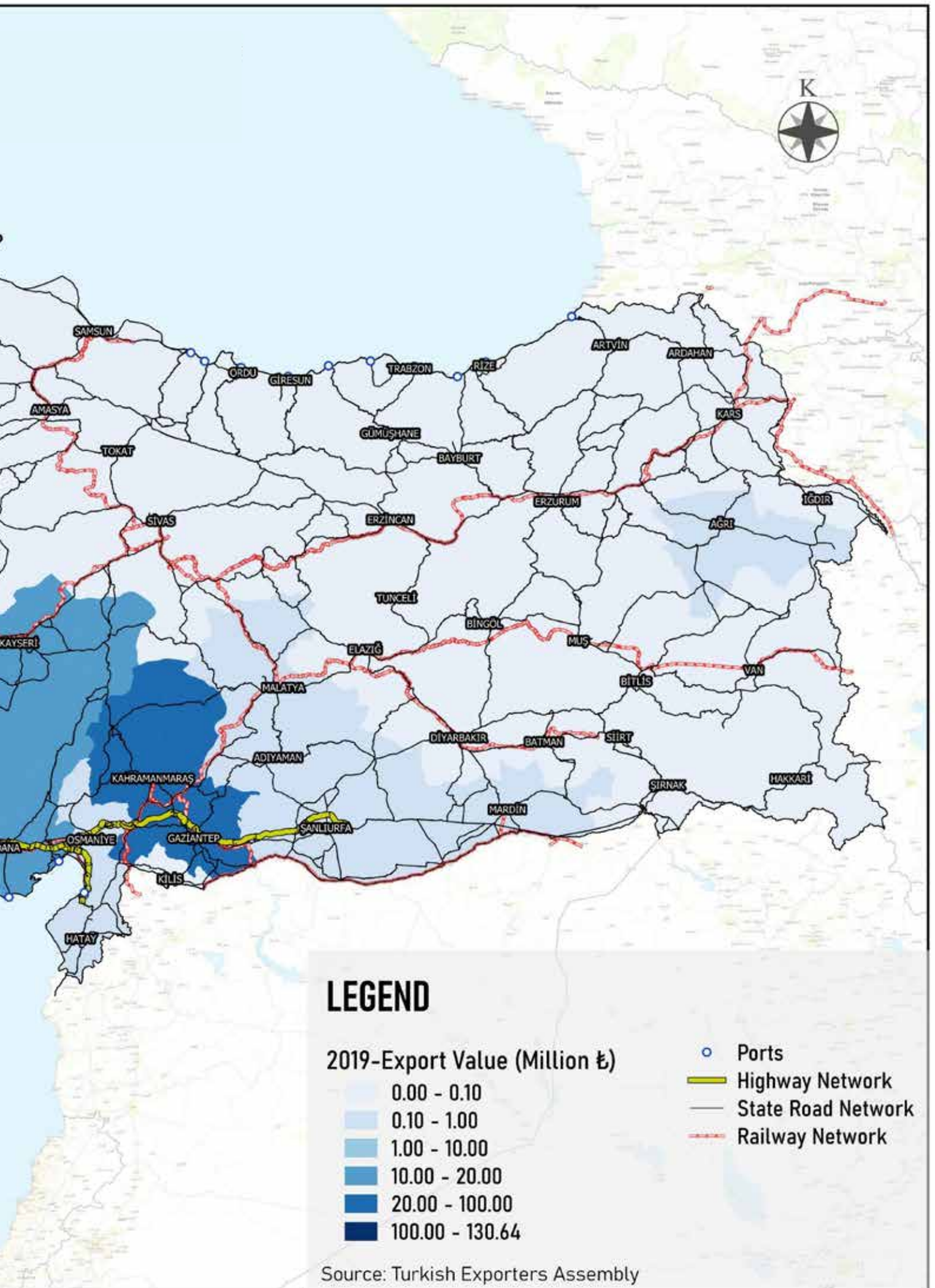
- 0.00 - 0.10
- 0.10 - 1.00
- 1.00 - 10.00
- 10.00 - 20.00
- 20.00 - 30.00
- 30.00 - 40.85

- Ports
- Highway Network
- State Road Network
- Railway Network

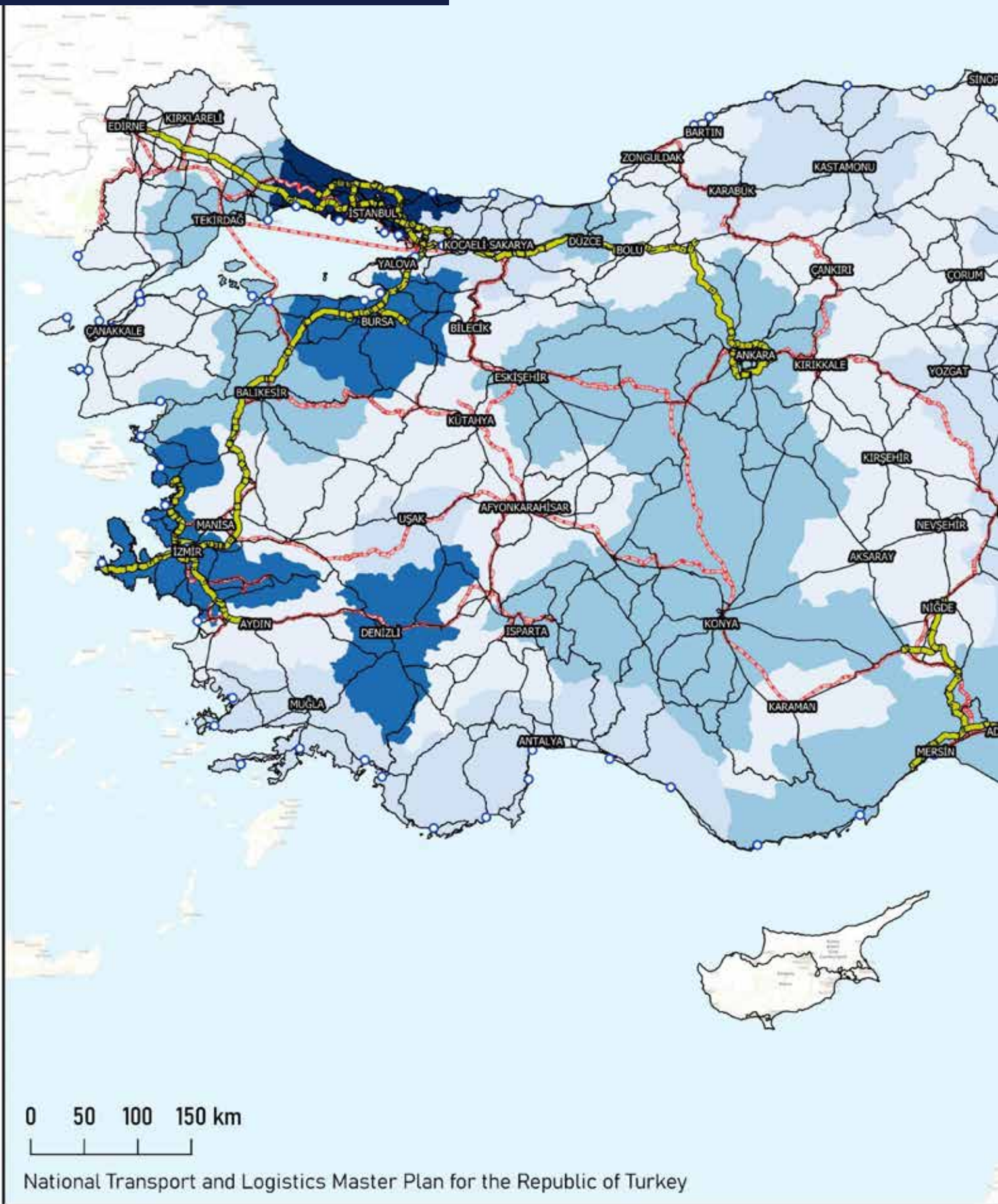
Source: Turkish Exporters Assembly

TEXTILE AND RAW MATERIAL EXPORT (2019)

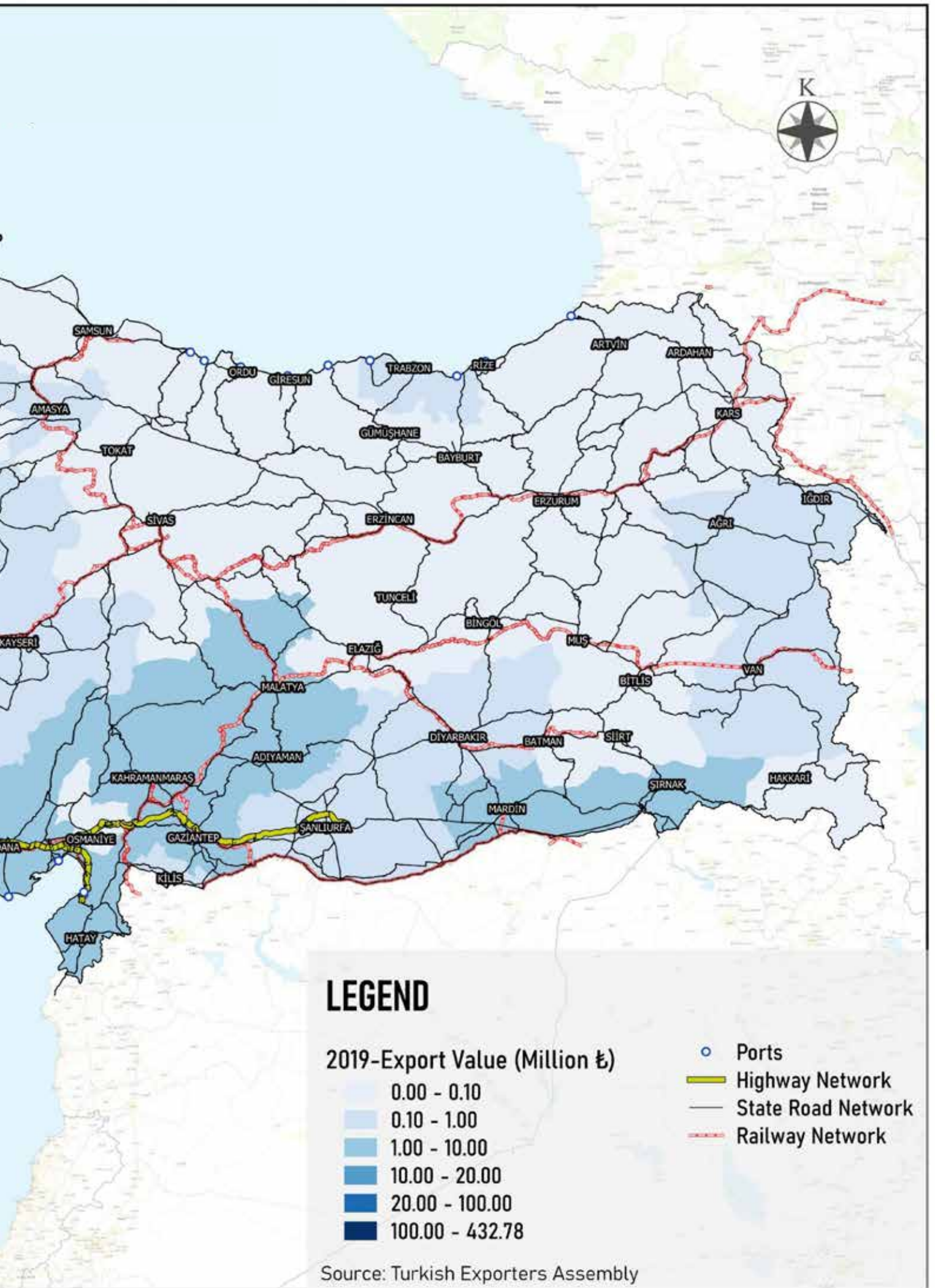




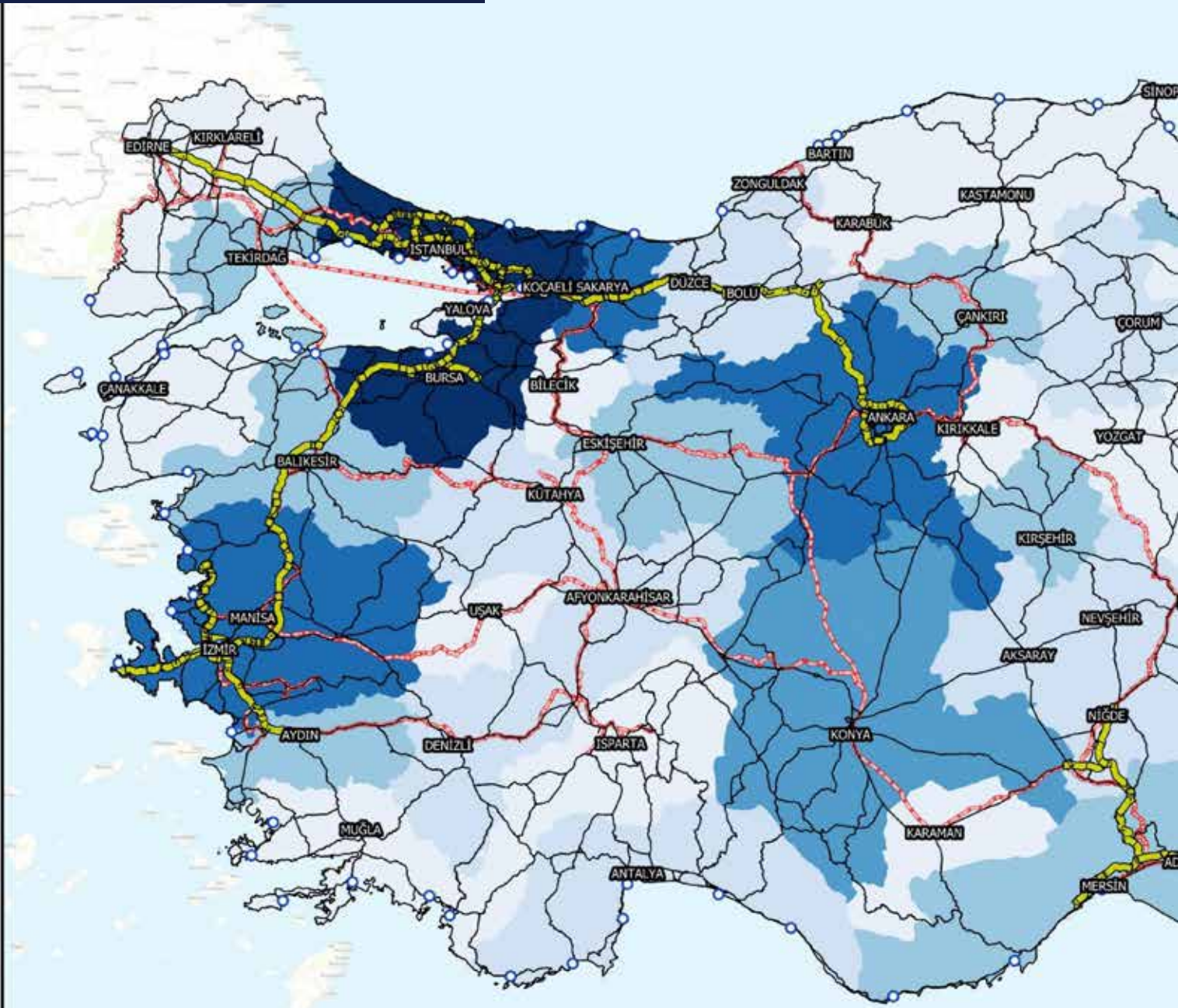
CONFECTION EXPORT (2019)



0 50 100 150 km



AUTOMOTIVE INDUSTRY EXPORT (2019)



0 50 100 150 km



LEGEND

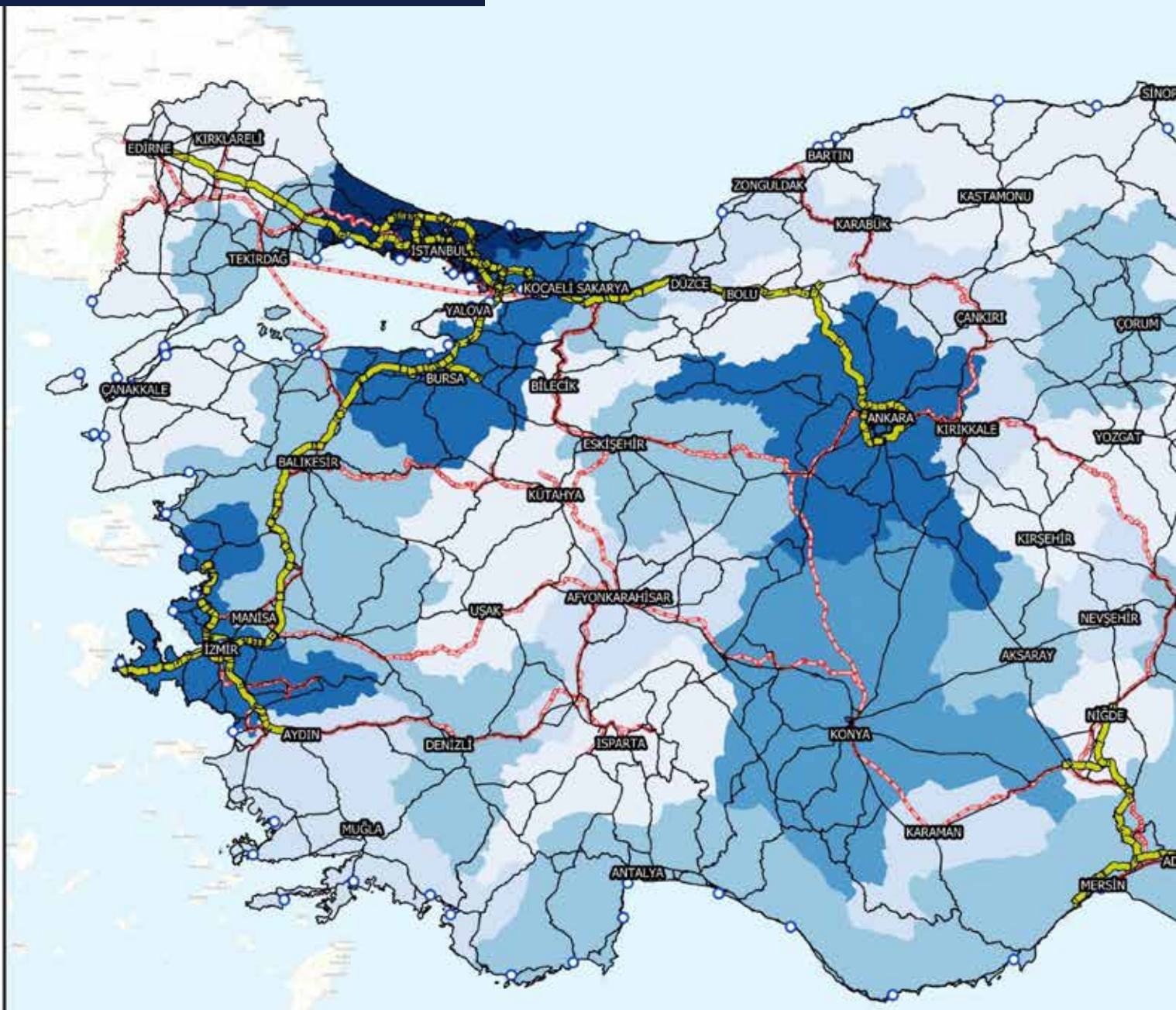
2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 1.00
- 1.00 - 10.00
- 10.00 - 20.00
- 20.00 - 100.00
- 100.00 - 582.27

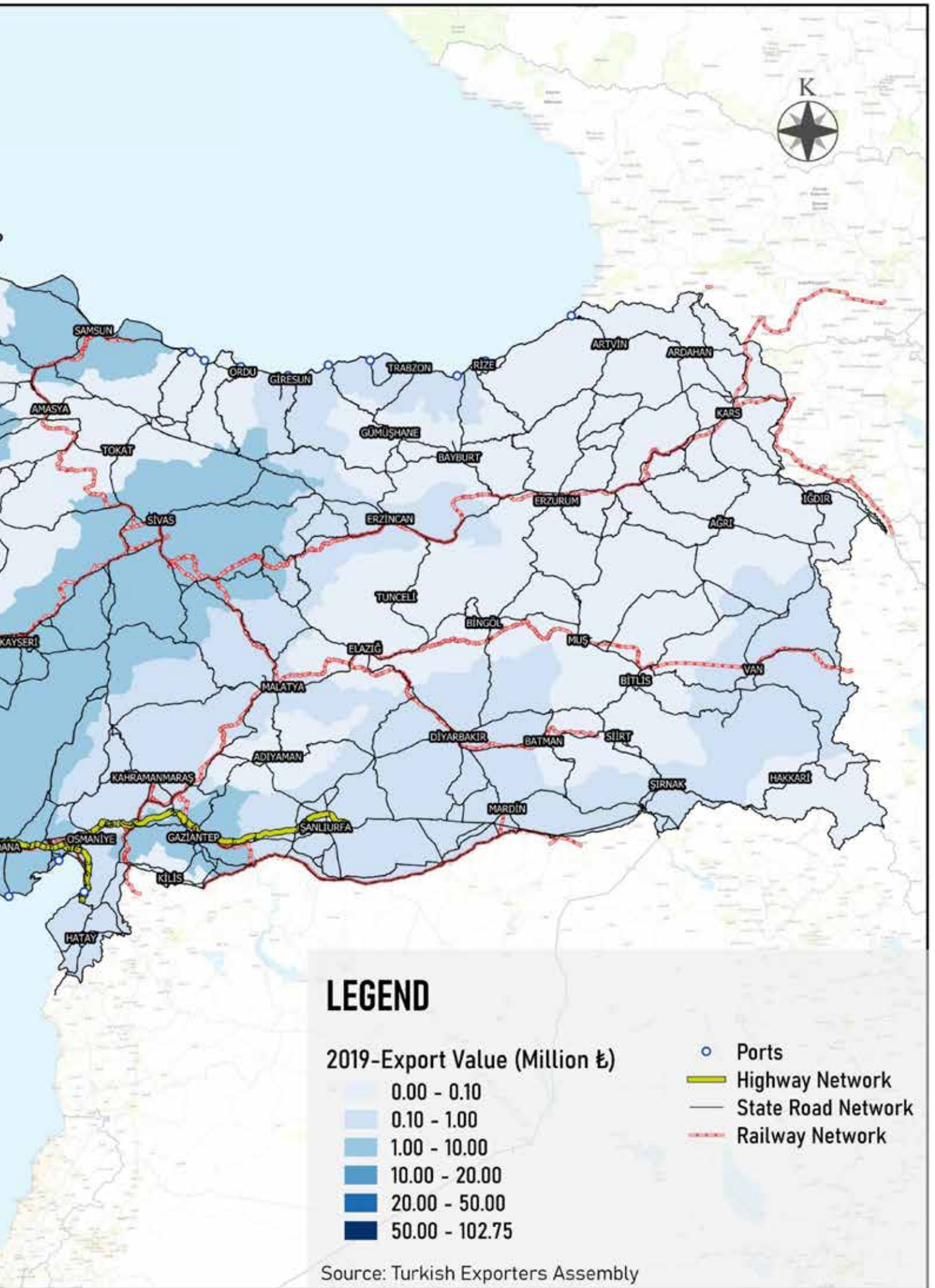
- Ports
- Highway Network
- State Road Network
- - - Railway Network

Source: Turkish Exporters Assembly

MACHINERY EQUIPMENT EXPORT (2019)



0 50 100 150 km



LEGEND

2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 1.00
- 1.00 - 10.00
- 10.00 - 20.00
- 20.00 - 50.00
- 50.00 - 102.75

- Ports
- Highway Network
- State Road Network
- Railway Network

Source: Turkish Exporters Assembly

DEFENCE AND AVIATION INDUSTRY EXPORT (2019)



0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey



LEGEND

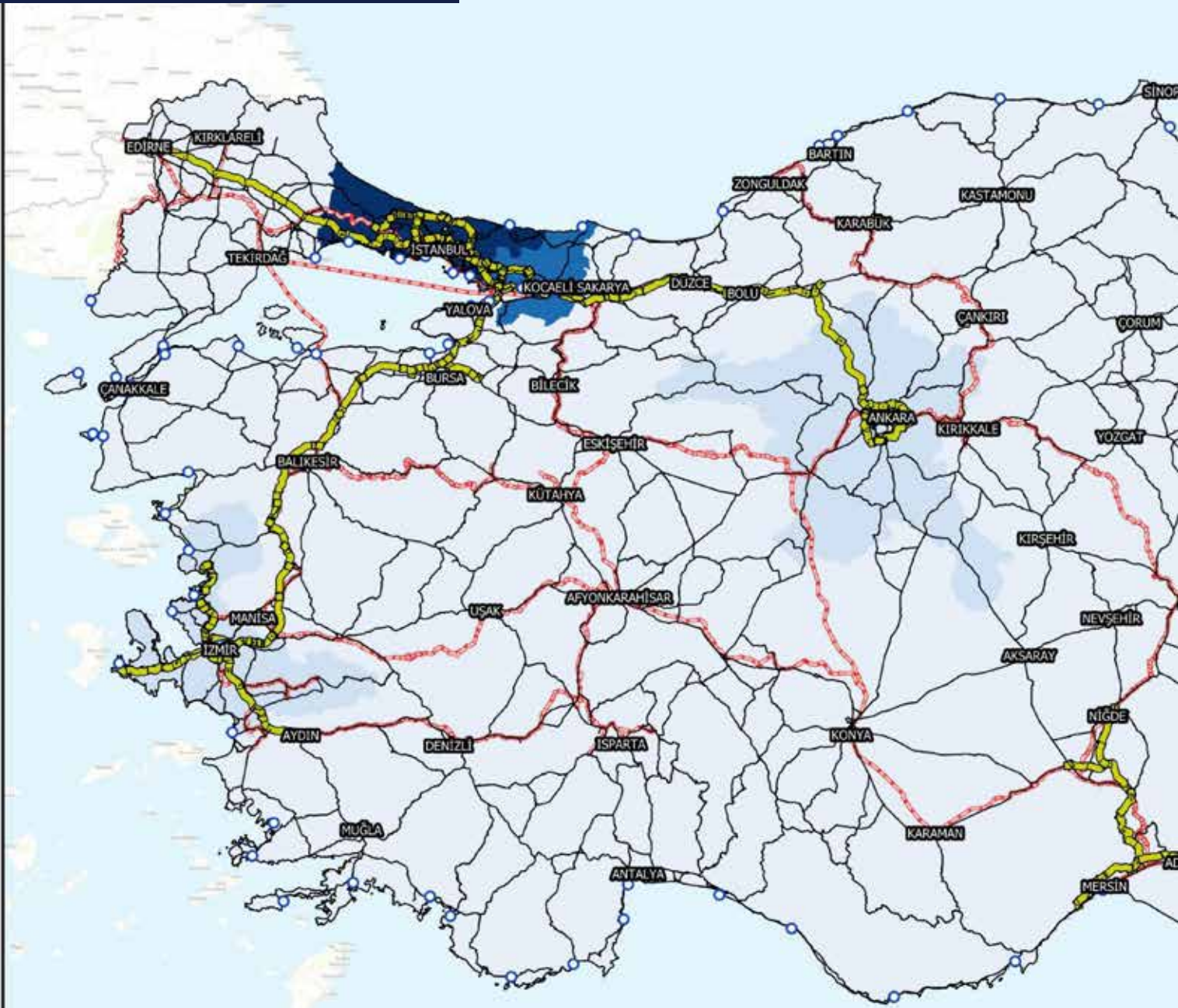
2019-Export Value (Million ₺)

- 0.00 - 0.36
- 0.10 - 1.00
- 1.00 - 5.00
- 5.00 - 10.00
- 10.00 - 20.00
- 20.00 - 45.26

- Ports
- Highway Network
- State Road Network
- - - Railway Network

Source: Turkish Exporters Assembly

OTHER INDUSTRIAL PRODUCTS EXPORT (2019)



0 50 100 150 km



LEGEND

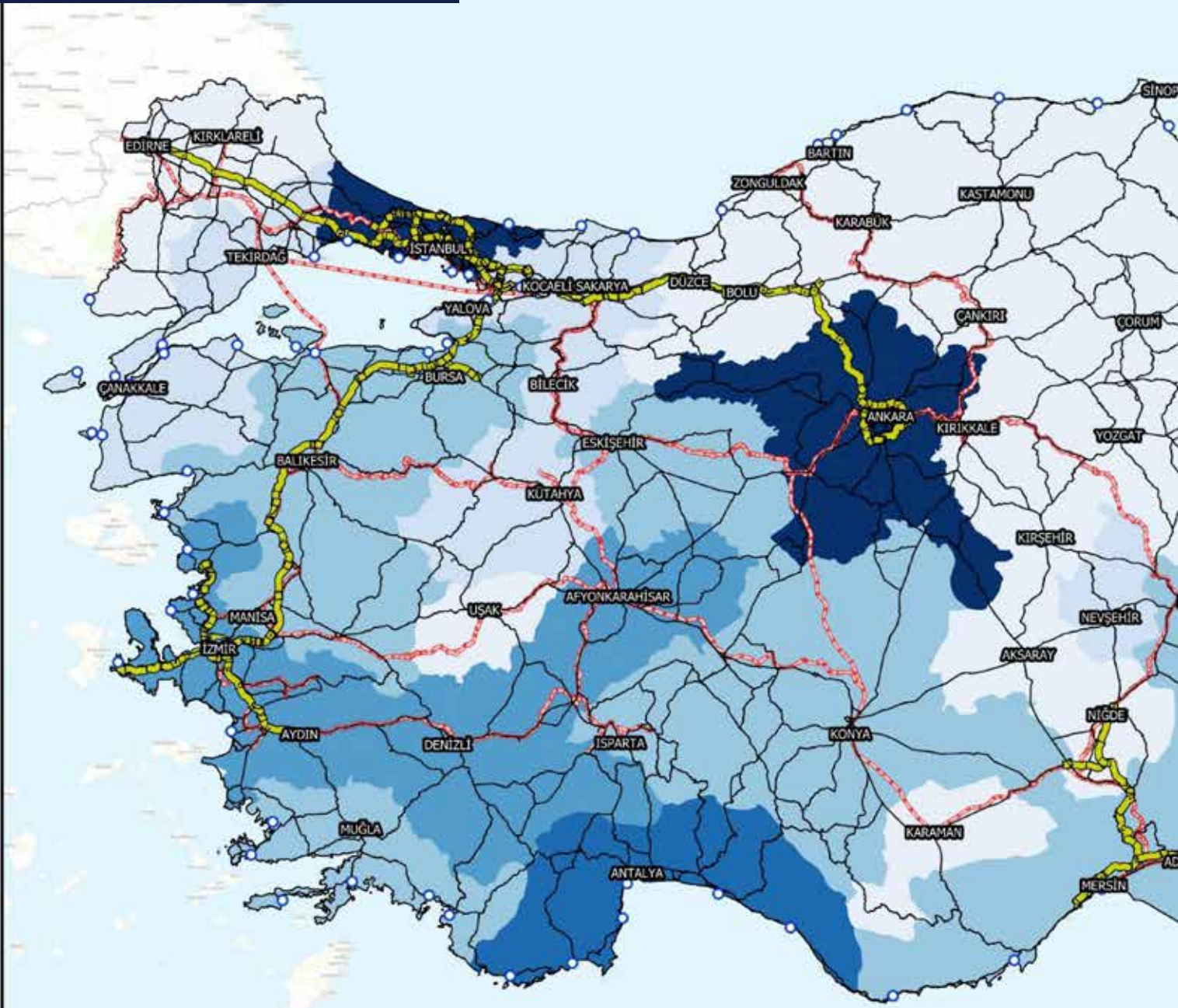
2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- 2.00 - 2.57

- Ports
- Highway Network
- State Road Network
- - - Railway Network

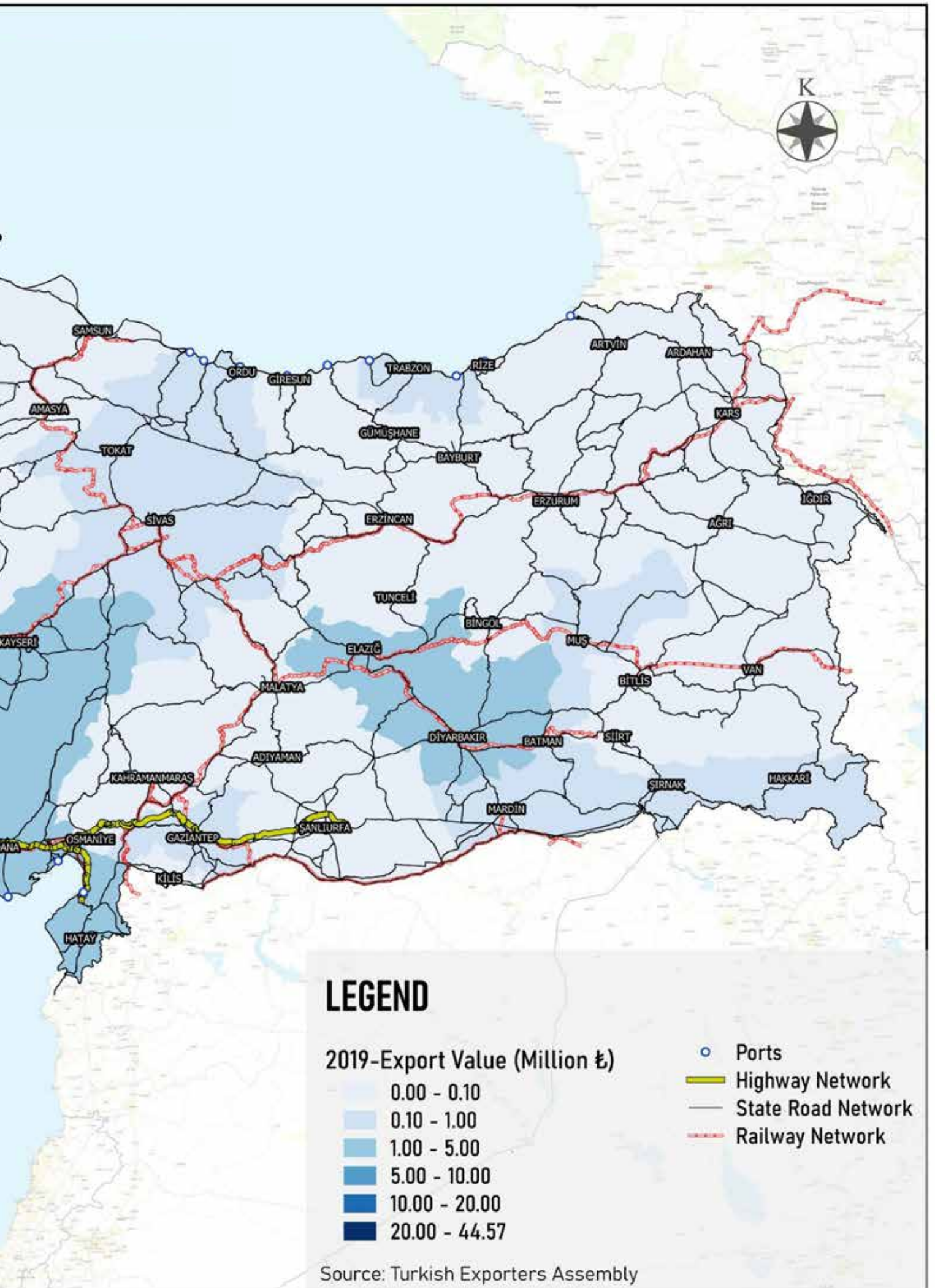
Source: Turkish Exporters Assembly

MINING PRODUCTS EXPORT (2019)



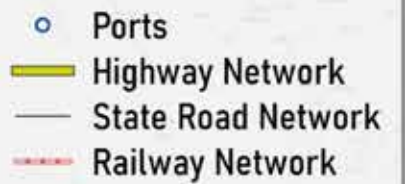
0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey



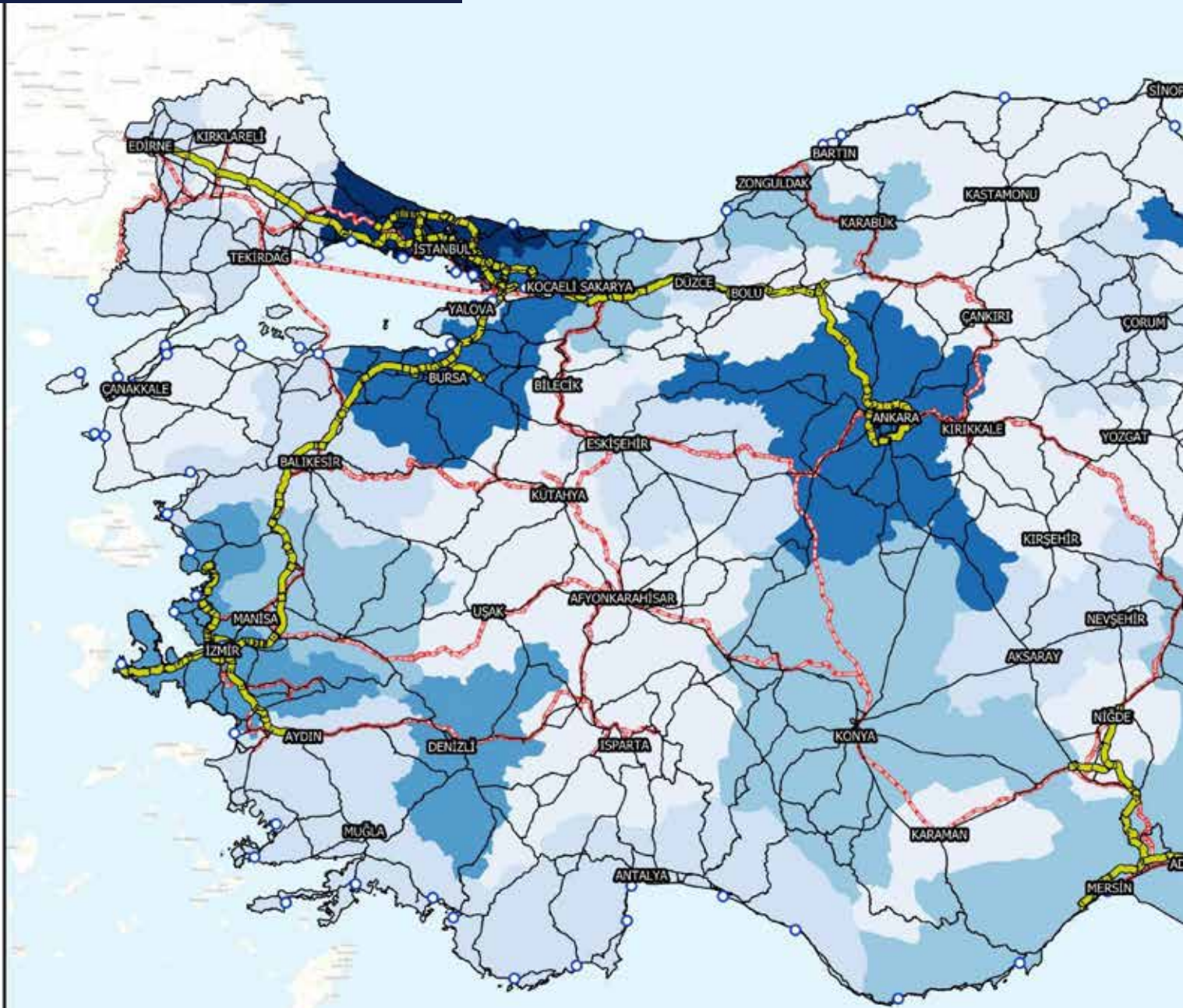
LEGEND

2019-Export Value (Million ₺)



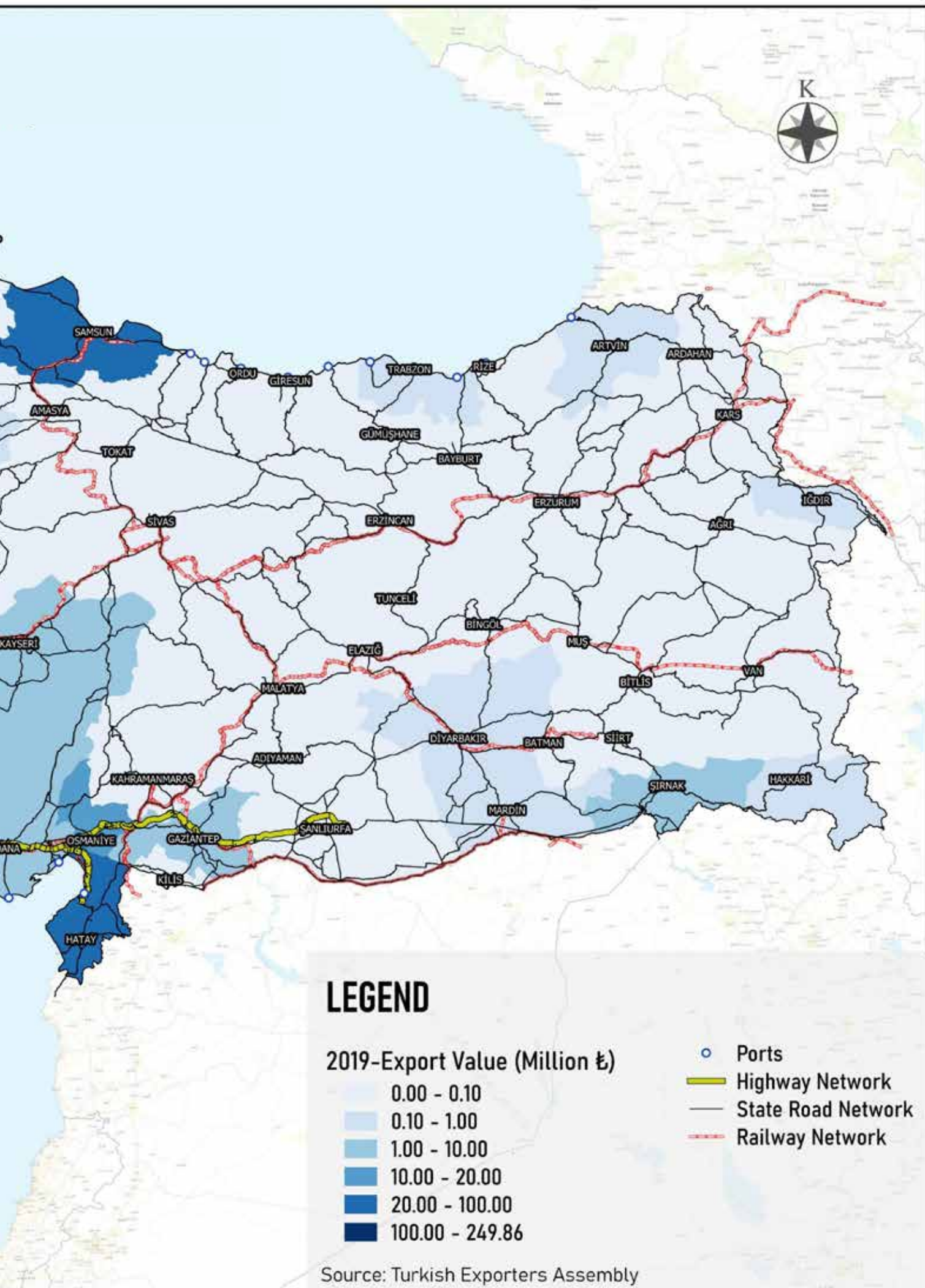
Source: Turkish Exporters Assembly

STEEL EXPORT (2019)

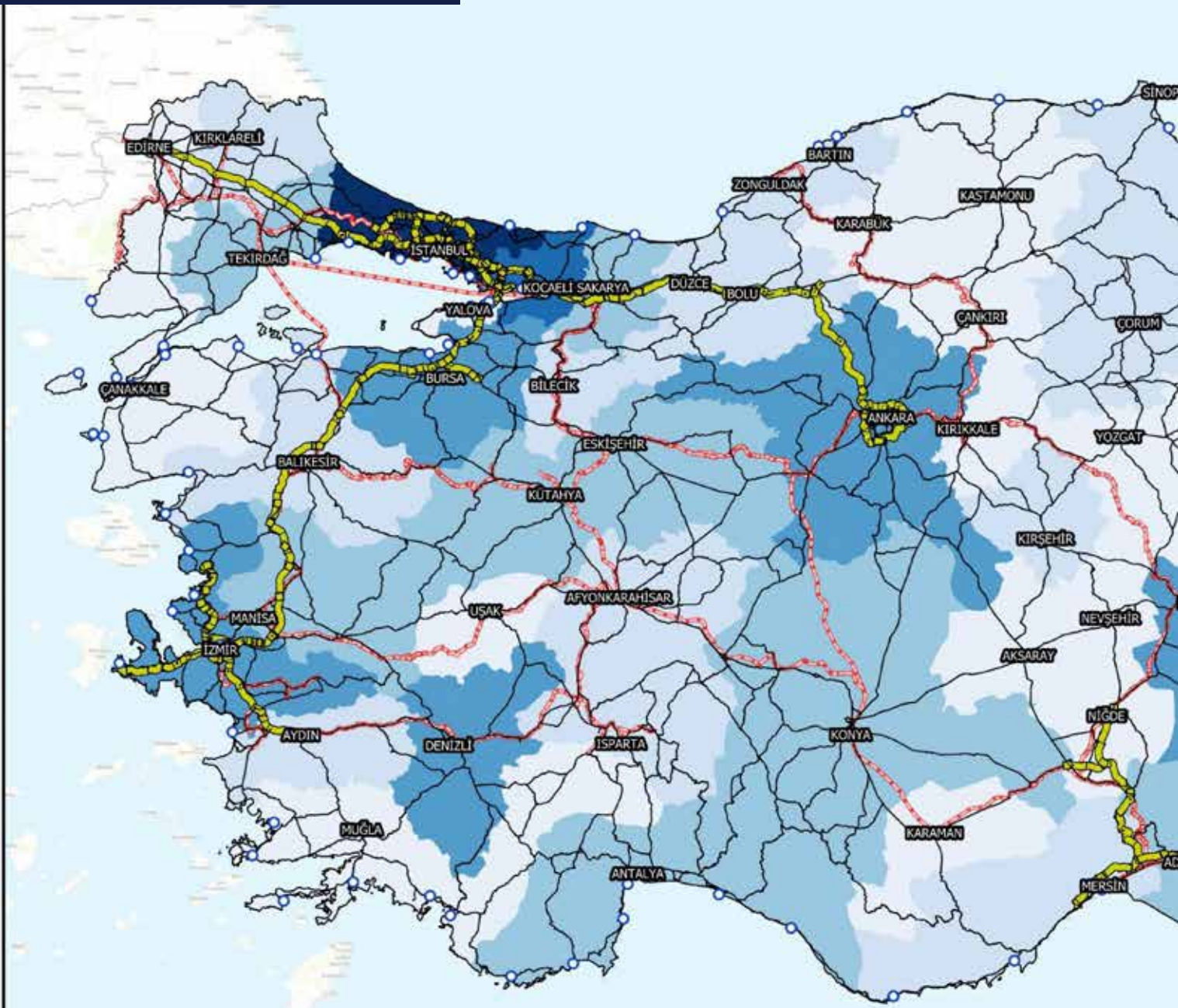


0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey

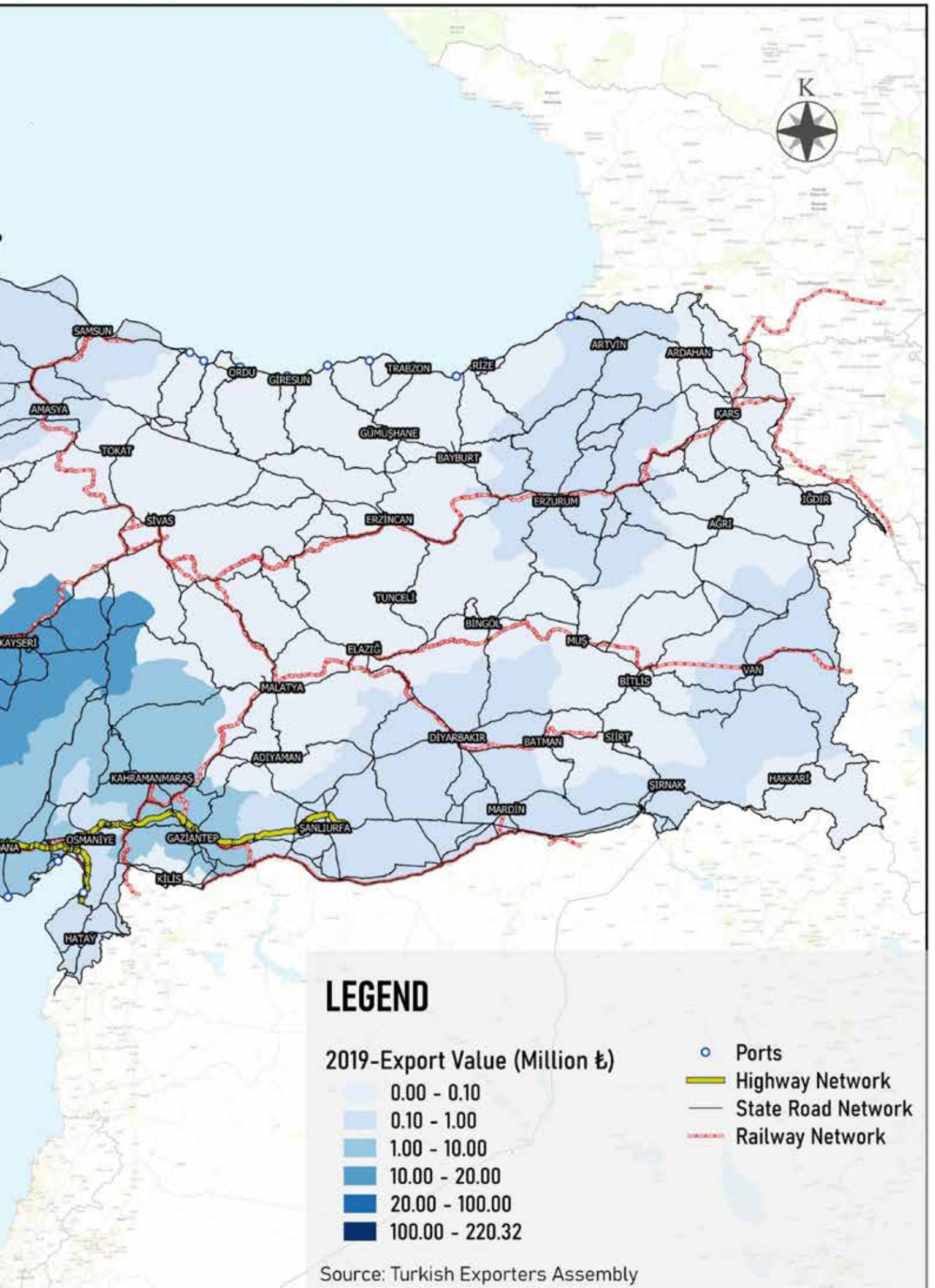


IRON AND NON-IRON METALS EXPORT (2019)



0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey



LEGEND

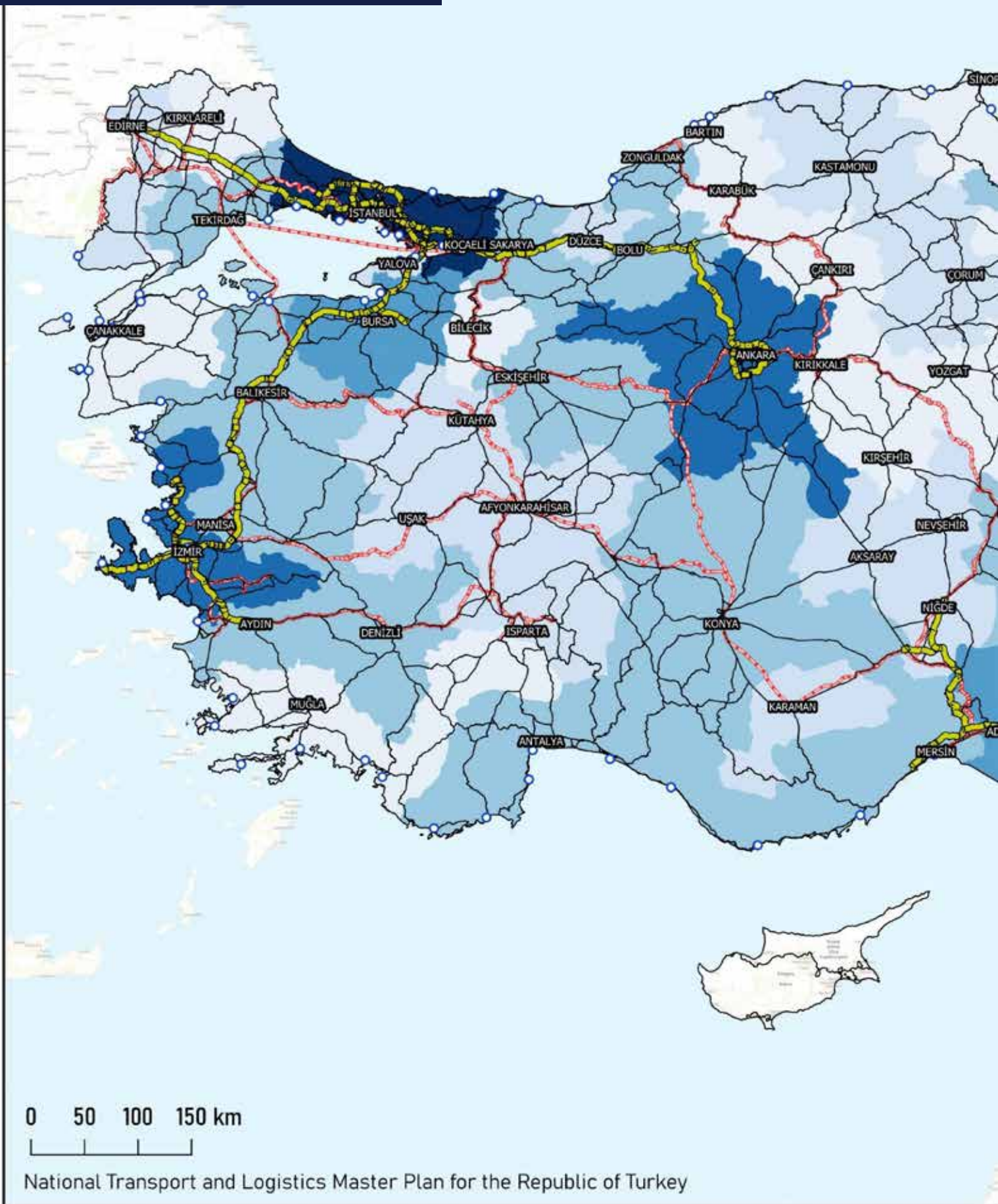
2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 1.00
- 1.00 - 10.00
- 10.00 - 20.00
- 20.00 - 100.00
- 100.00 - 220.32

- Ports
- Highway Network
- State Road Network
- Railway Network

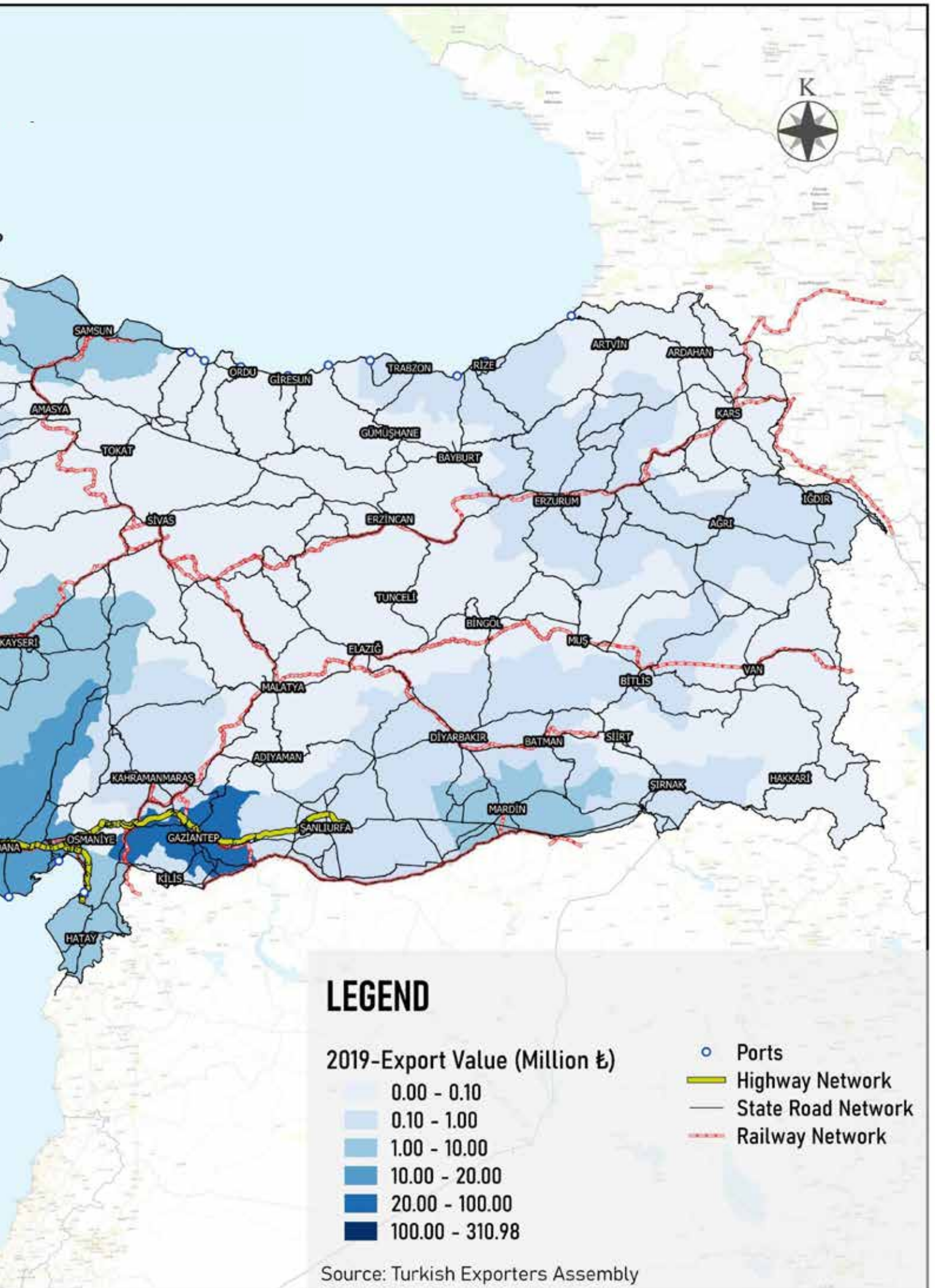
Source: Turkish Exporters Assembly

CHEMICAL MATERIALS AND PRODUCTS EXPORT (2019)



0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey



Source: Turkish Exporters Assembly



LEGEND

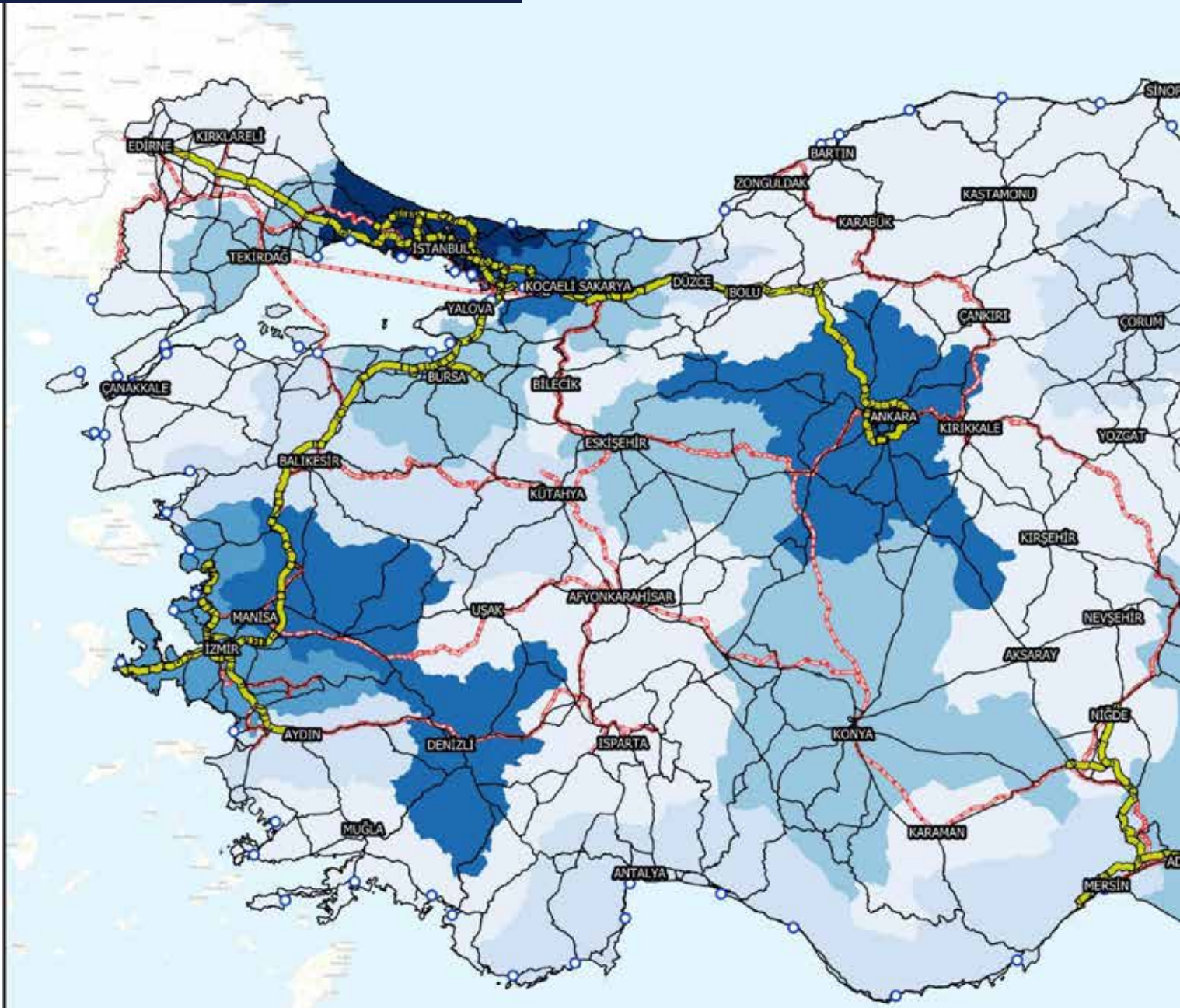
2019-Export Value (Million ₺)

- 0.00 - 0.10
- 0.10 - 1.00
- 1.00 - 10.00
- 10.00 - 20.00
- 20.00 - 50.00
- 50.00 - 83.03

- Ports
- Highway Network
- State Road Network
- Railway Network

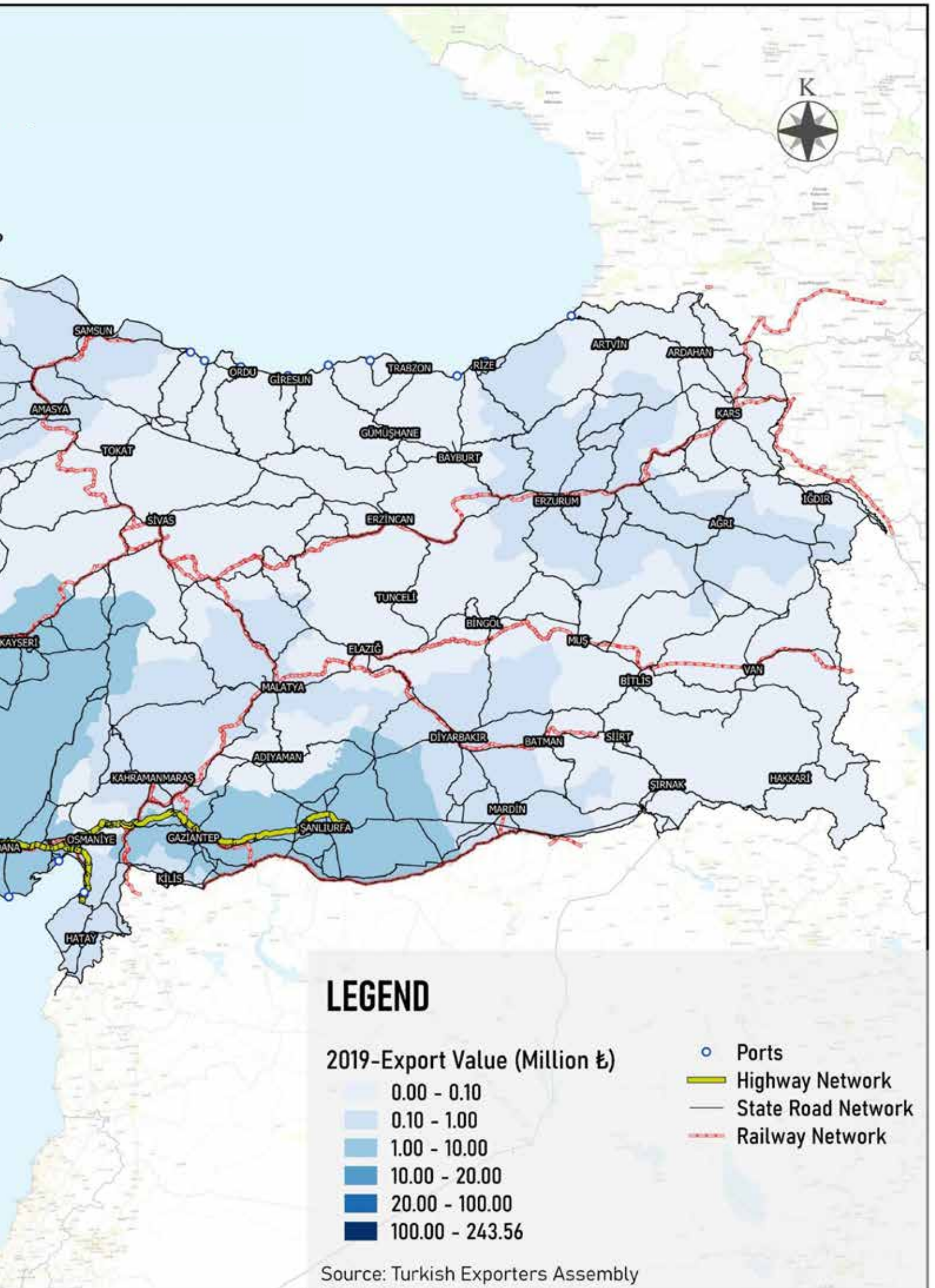
Source: Turkish Exporters Assembly

ELECTRIC, ELECTRONIC AND SERVICES EXPORT (2019)



0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey

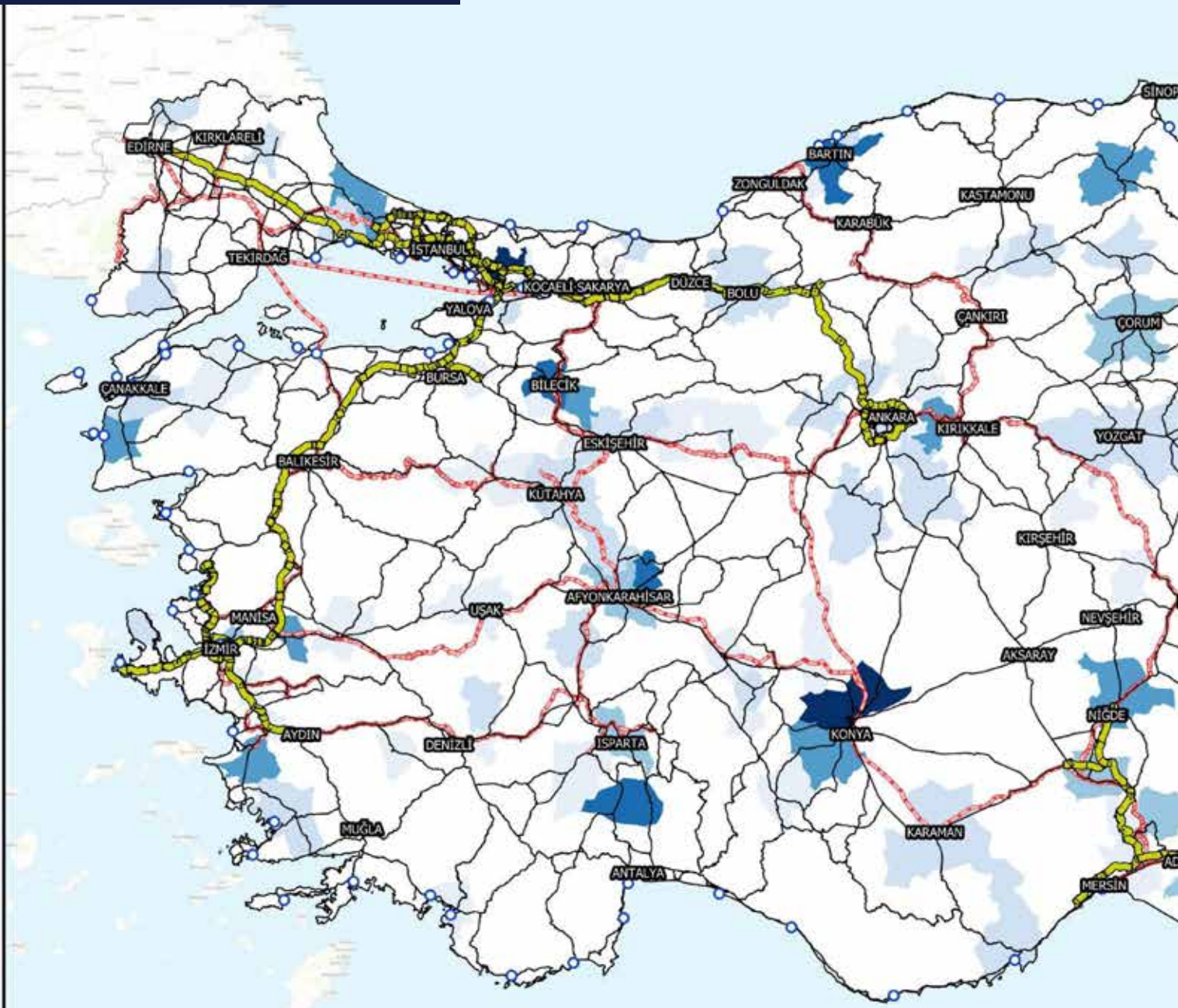




4. MINING RESERVES PROFILE OF Türkiye

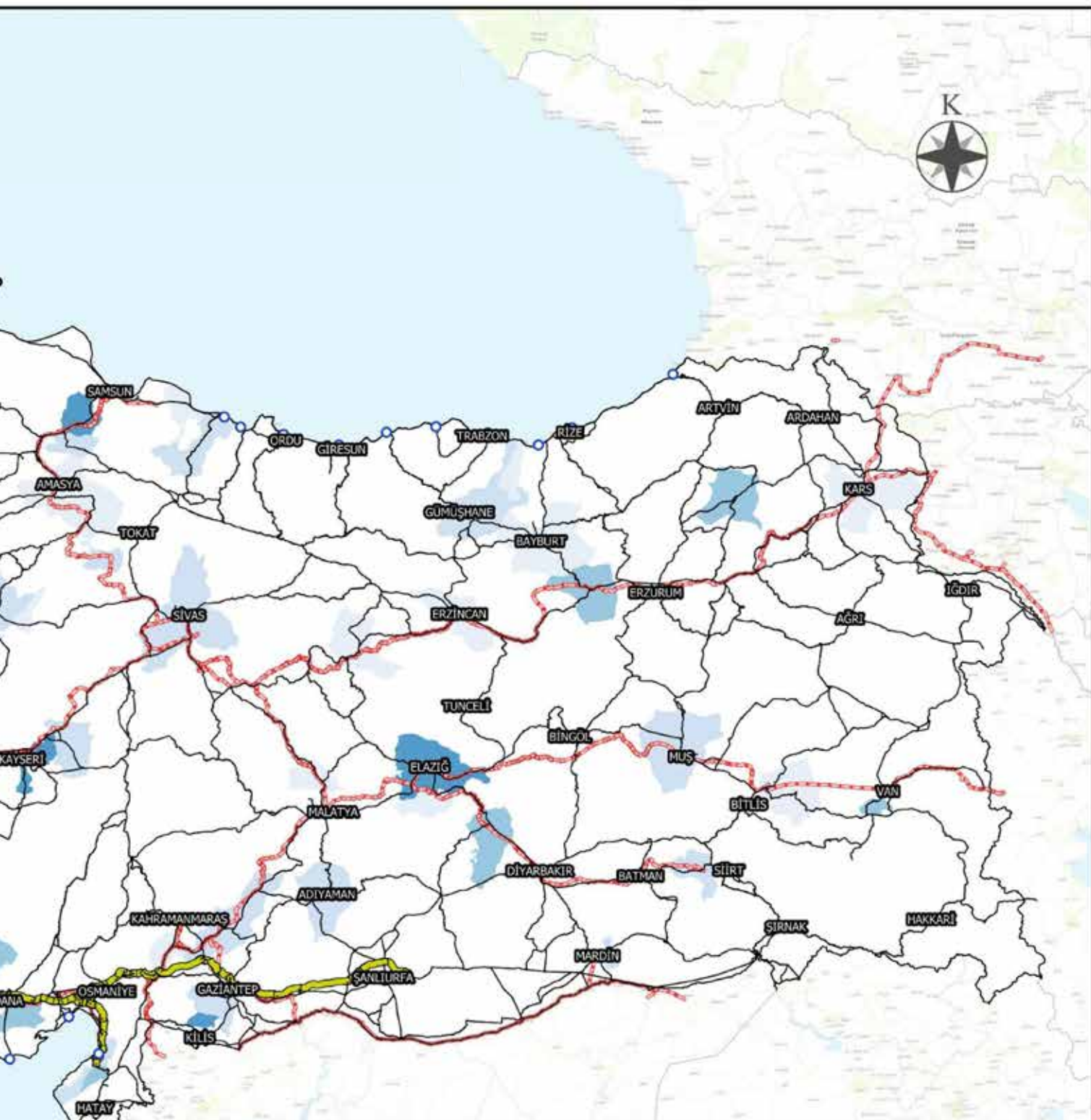


I-B MINING GROUP RESERVES (2019)



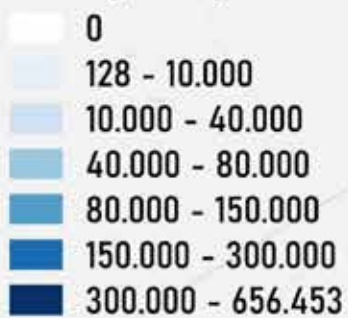
0 50 100 150 km





National Transport and Logistics Master Plan for the Republic of Turkey



LEGEND

I-B Mining Group Reserves (1000 tons)

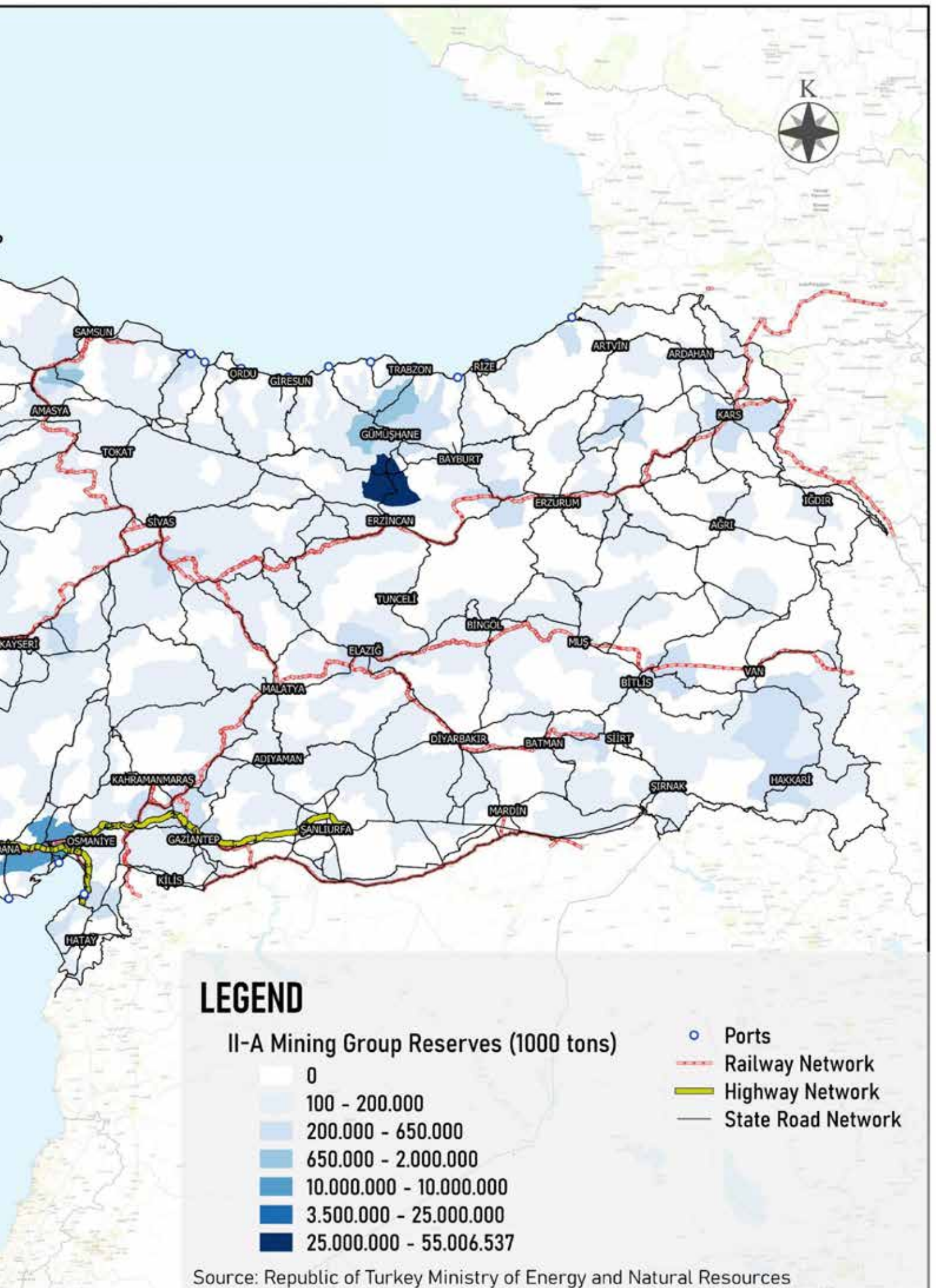


-  Ports
-  Railway Network
-  Highway Network
-  State Road Network

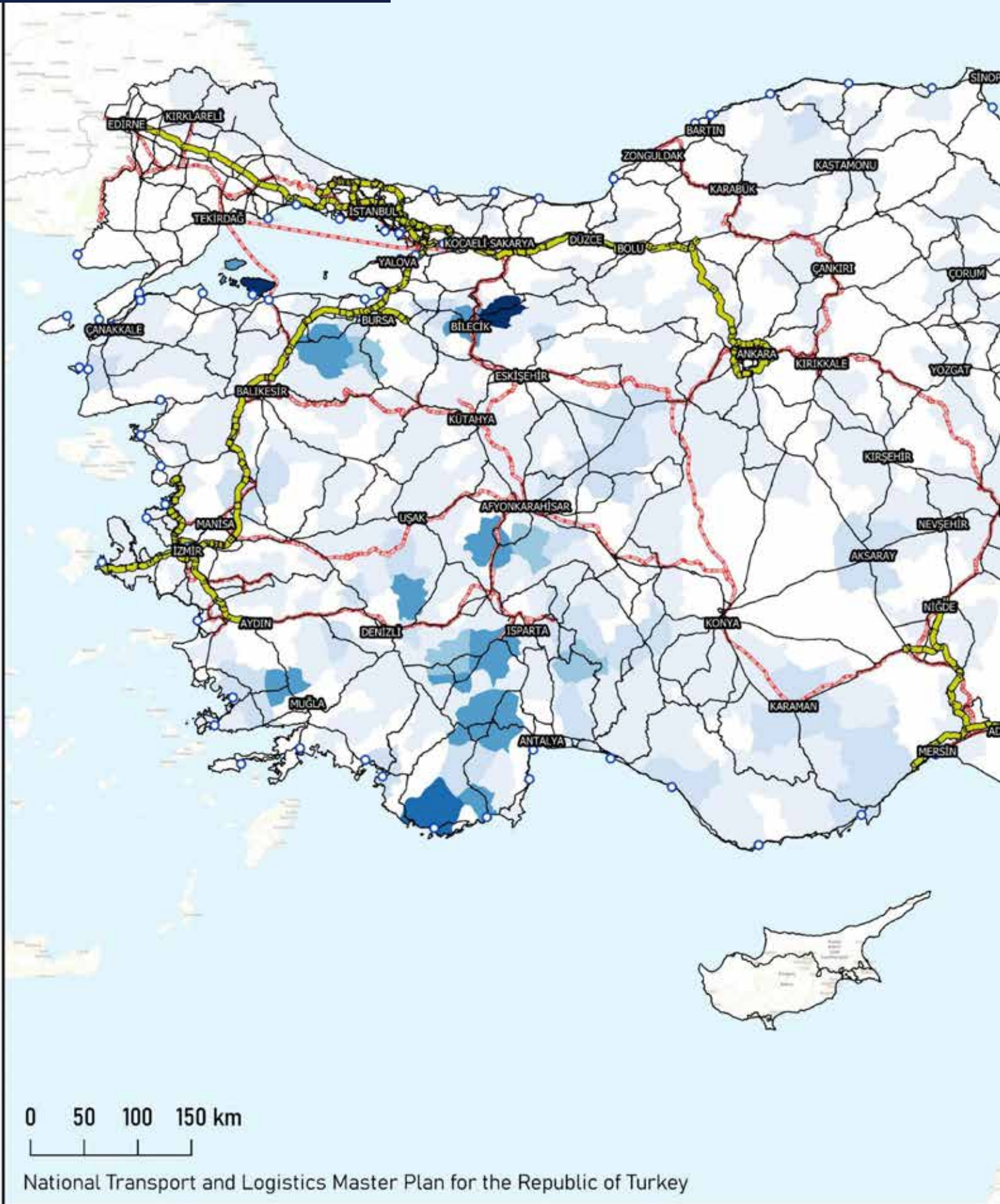
Source: Republic of Turkey Ministry of Energy and Natural Resources

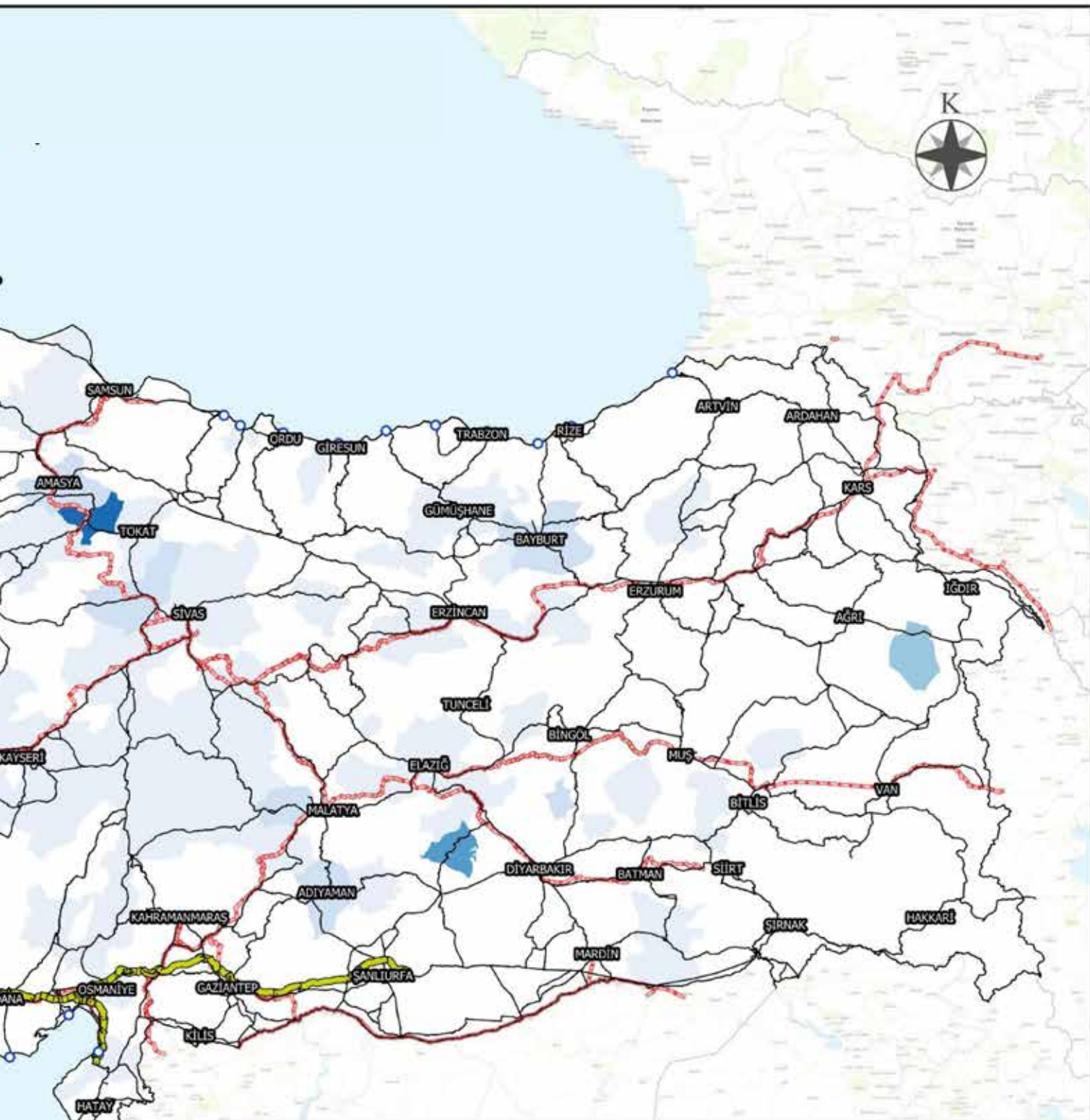
II-A MINING GROUP RESERVES (2019)





II-B MINING GROUP RESERVES (2019)





LEGEND

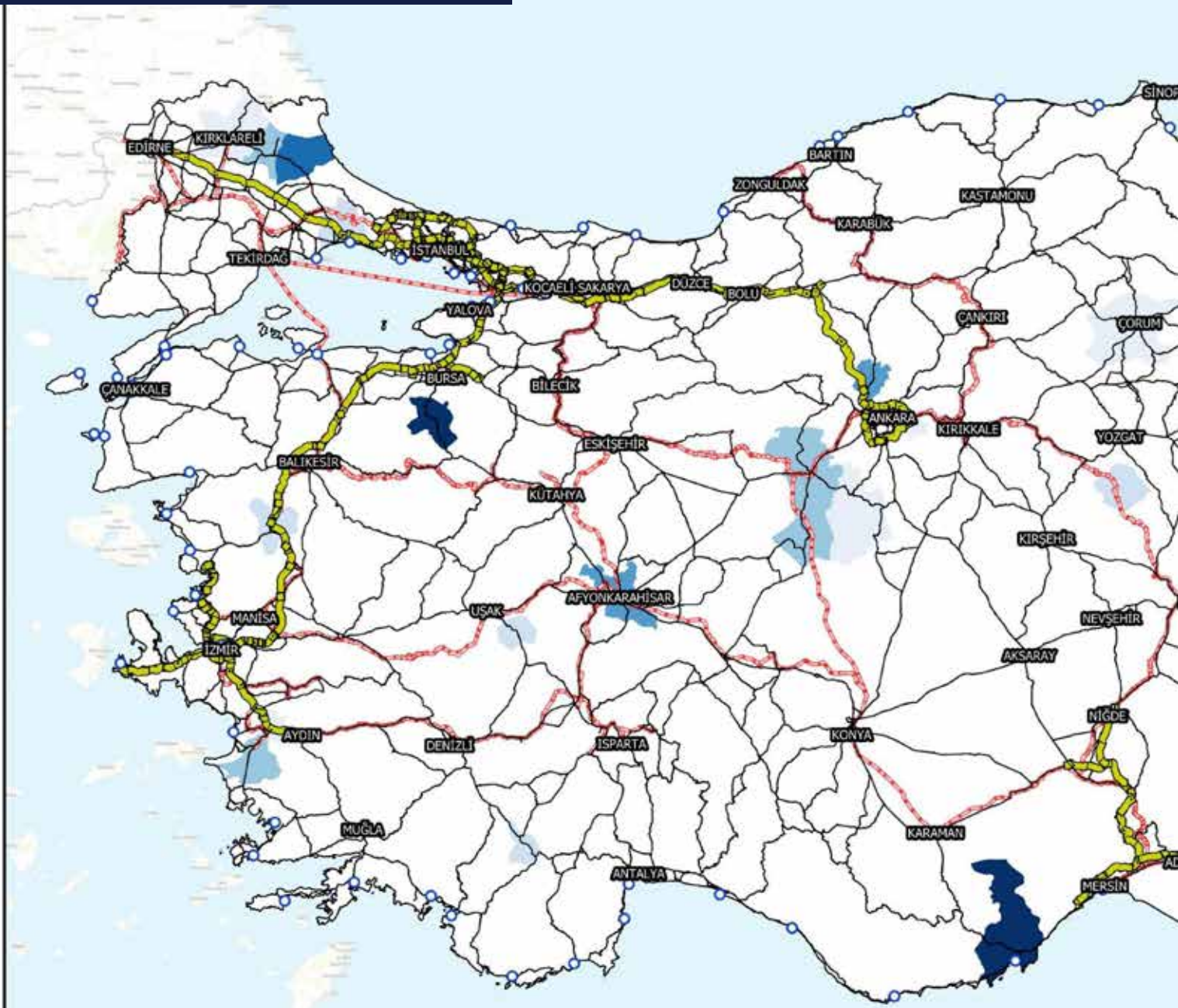
II-B Mining Group Reserves (1000 tons)

White	0
Lightest Blue	40 - 150.000
Light Blue	150.000 - 550.000
Medium Blue	550.000 - 1.000.000
Dark Blue	1.000.000 - 2.000.000
Very Dark Blue	2.000.000 - 4.000.000
Black	4.000.000 - 7.760.031

○ Ports
--- Railway Network
--- Highway Network
--- State Road Network

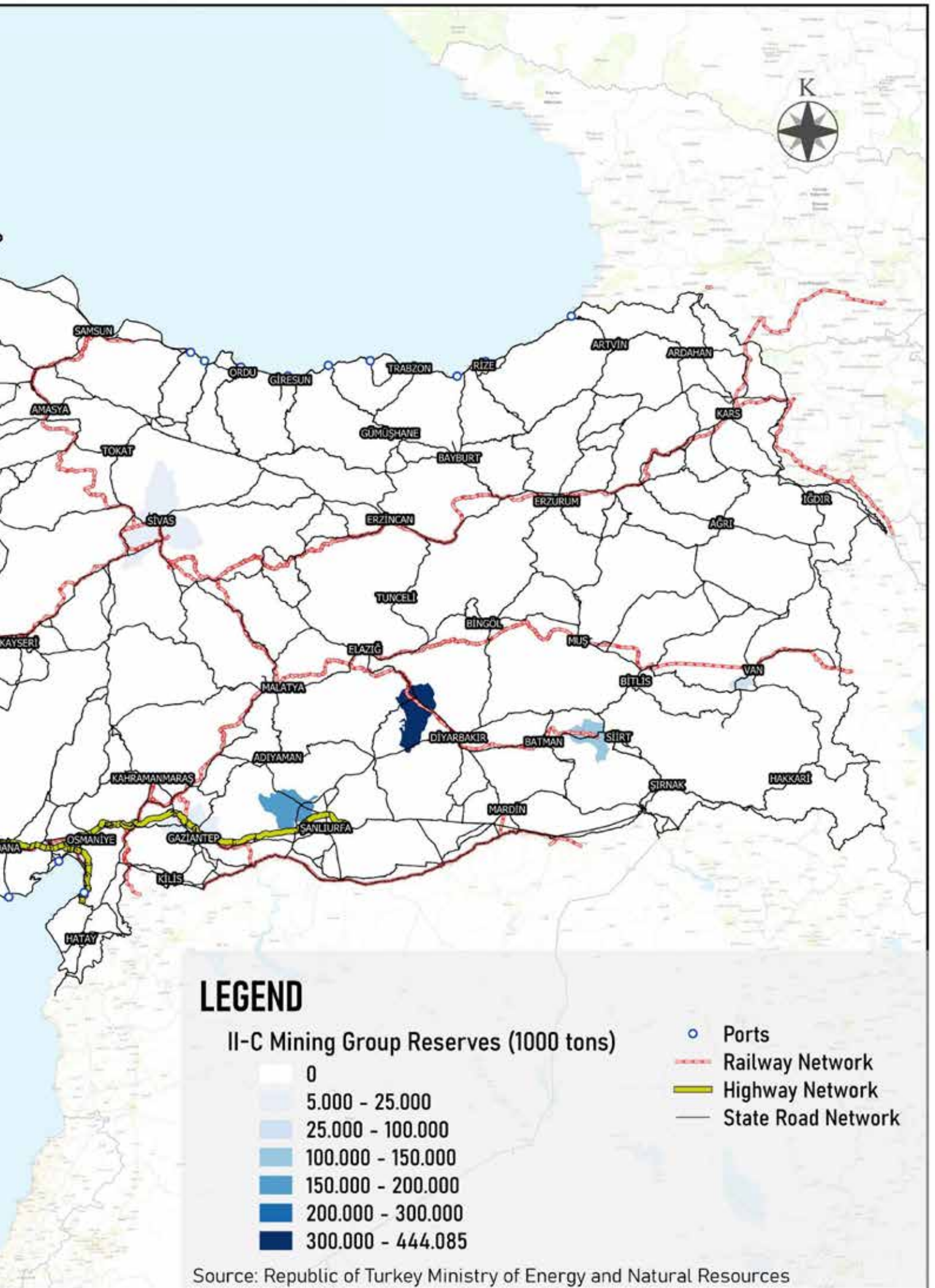
Source: Republic of Turkey Ministry of Energy and Natural Resources

II-C MINING GROUP RESERVES (2019)



0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey



Source: Republic of Turkey Ministry of Energy and Natural Resources

III. MINING GROUP RESERVES (2019)



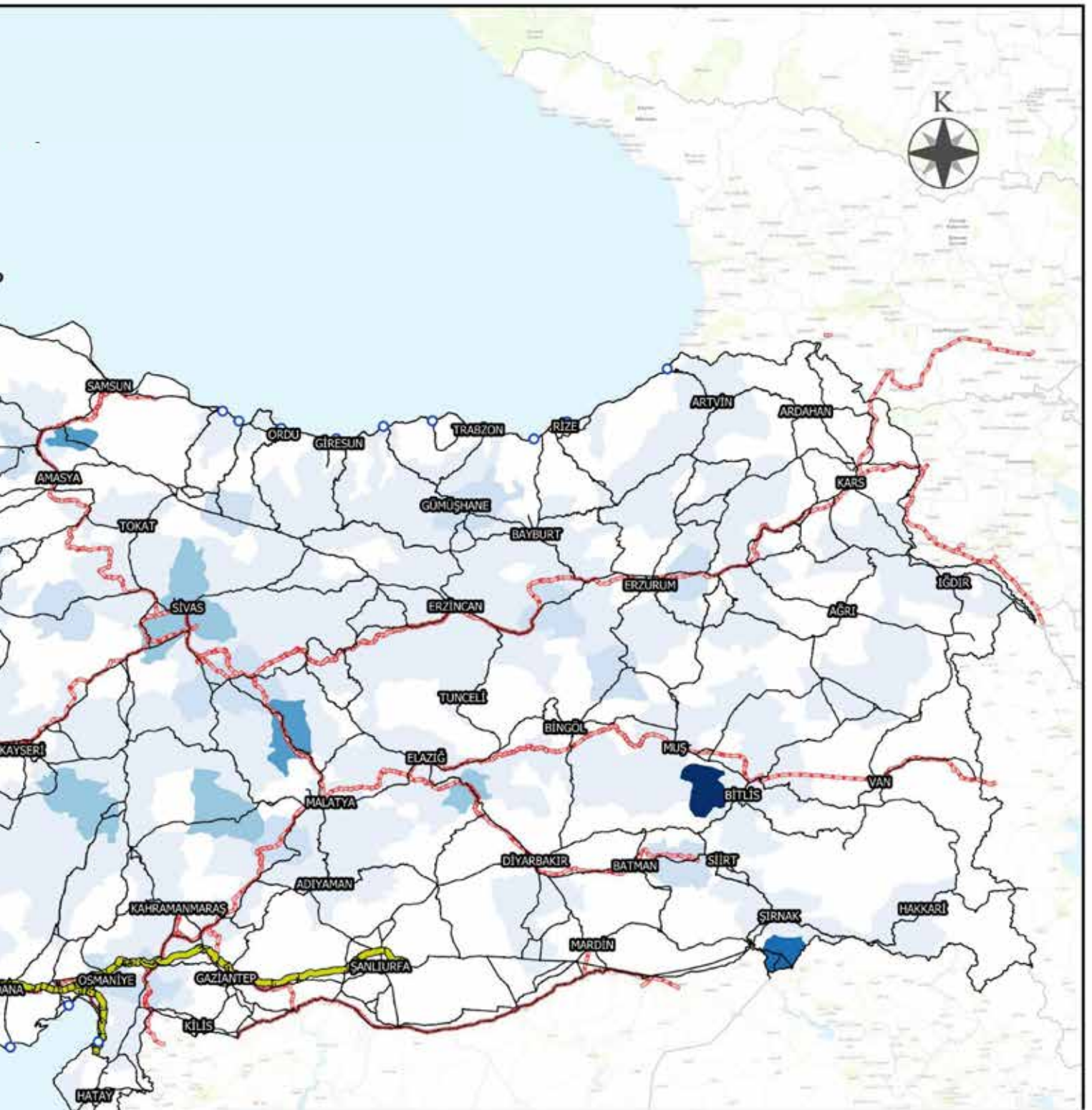
0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey



IV. MINING GROUP RESERVE (2019)





LEGEND

IV. Mining Group Reserves (1000 tons)

White	0
Lightest Blue	0,1 - 100.000
Light Blue	100.000 - 350.000
Medium Blue	350.000 - 800.000
Dark Blue	800.000 - 2.000.000
Very Dark Blue	2.000.000 - 3.500.000
Black	3.500.000 - 53.427.885

- Ports
- - - Railway Network
- Highway Network
- State Road Network

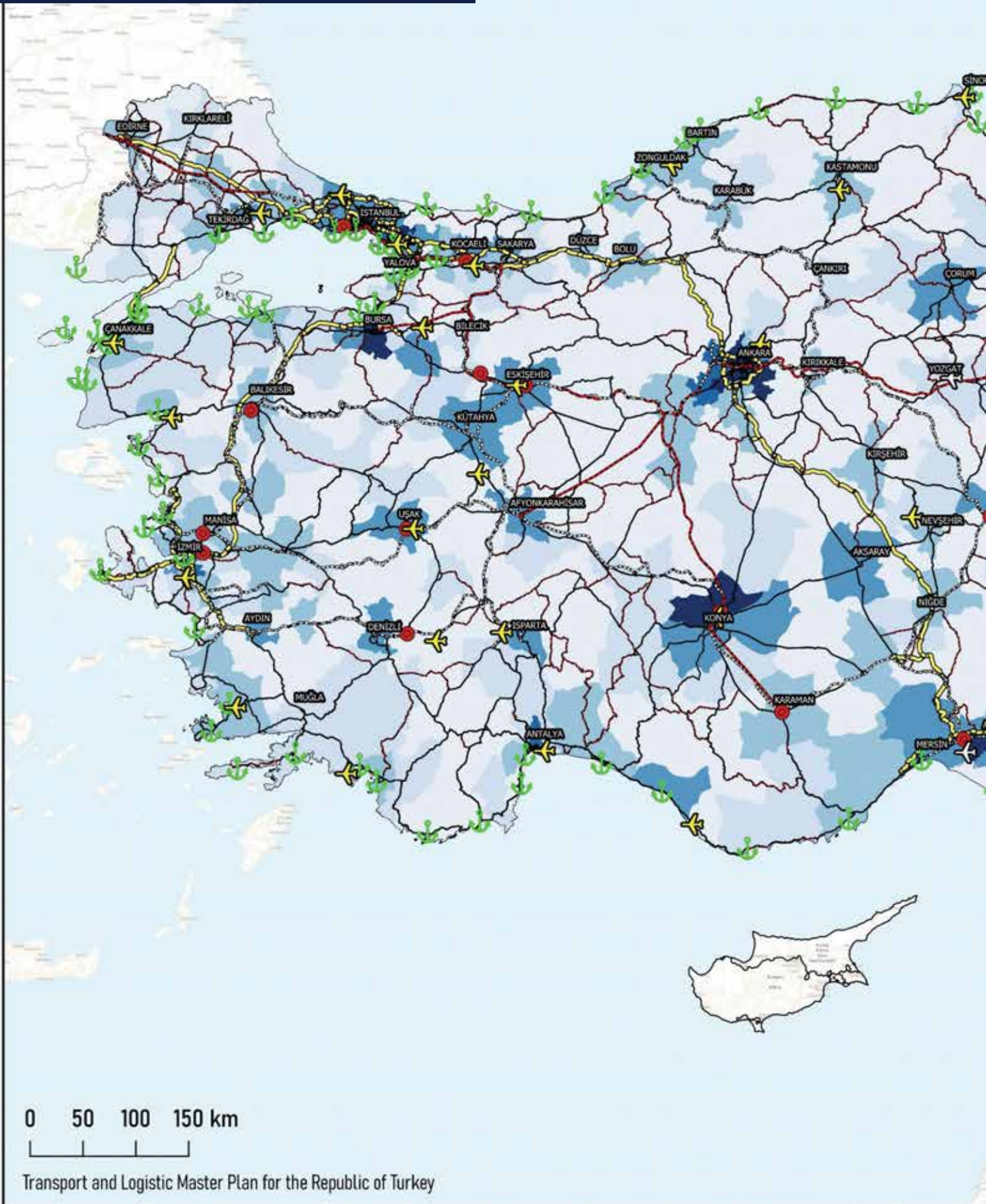
Source: Republic of Turkey Ministry of Energy and Natural Resources

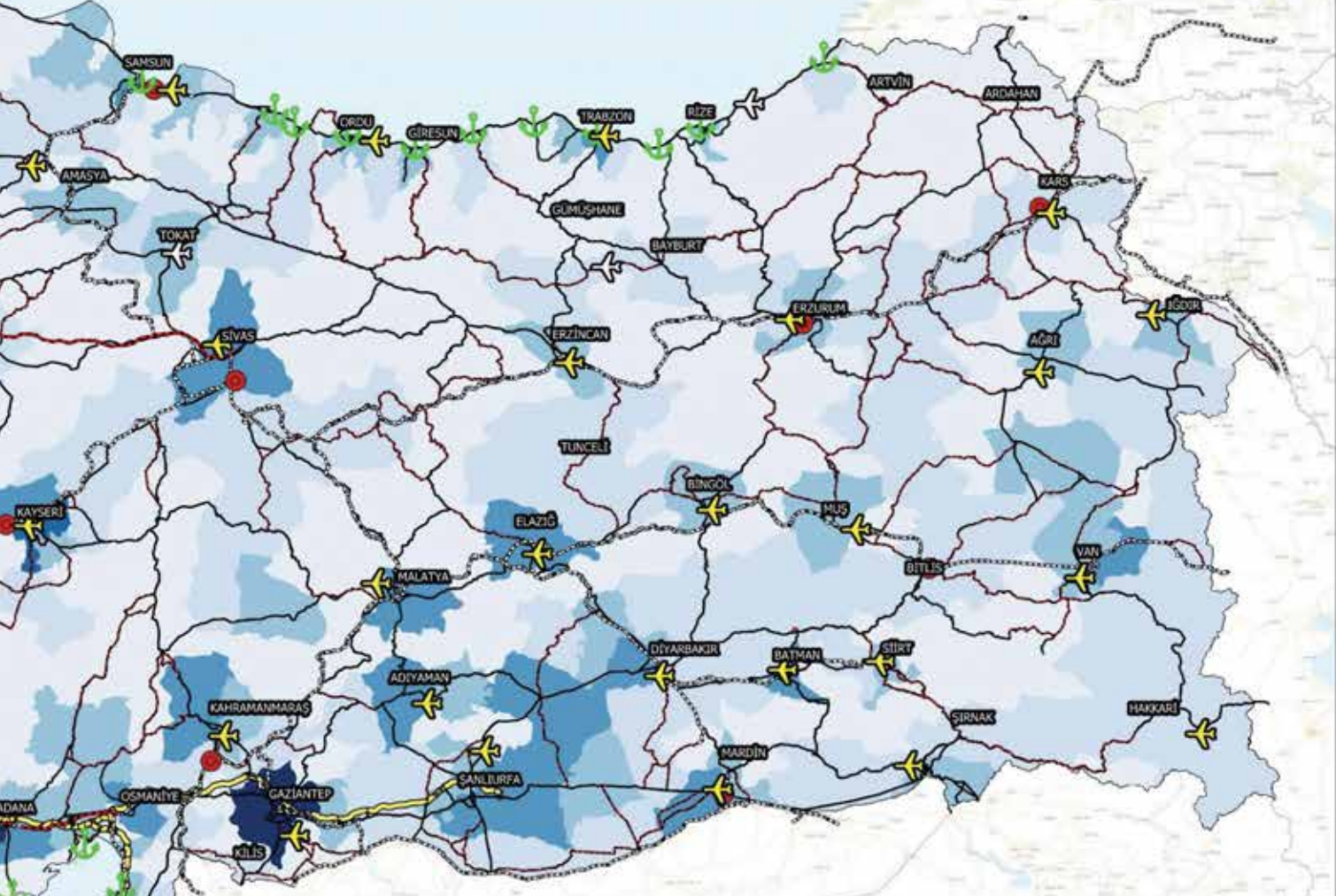
An aerial photograph of a large suspension bridge spanning a wide body of water. The bridge's cables and towers are visible, extending from the foreground towards the horizon. In the background, there are rolling hills under a clear sky. The entire image has a blue color overlay.

5. TRANSPORT AND LOGISTICS MASTER PLAN: PROPOSED SCENARIO



TRANSPORT AND LOGISTICS MASTER PLAN (2023)





Legend

Roads

- Highways
- State Roads (Divided)
- State Roads (Undivided)
- Provincial Roads (Divided)
- Provincial Roads (Undivided)

Demiryolları

- Rapid Rail Lines
- Conventional Rail Lines

Havalimanları

- Airports (Existing)
- Airports (Planned)

Limanlar

- Ports

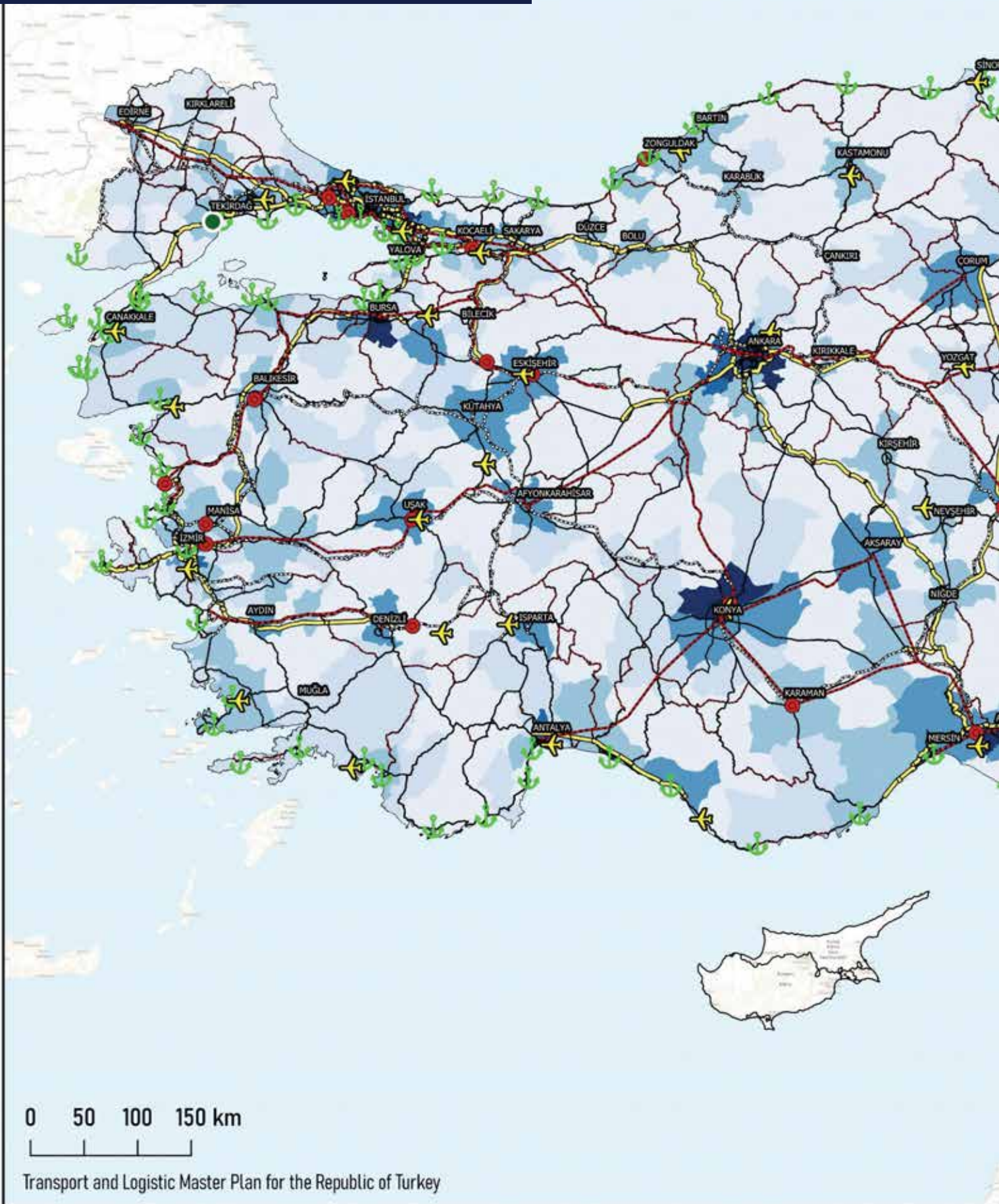
Logistic Centers

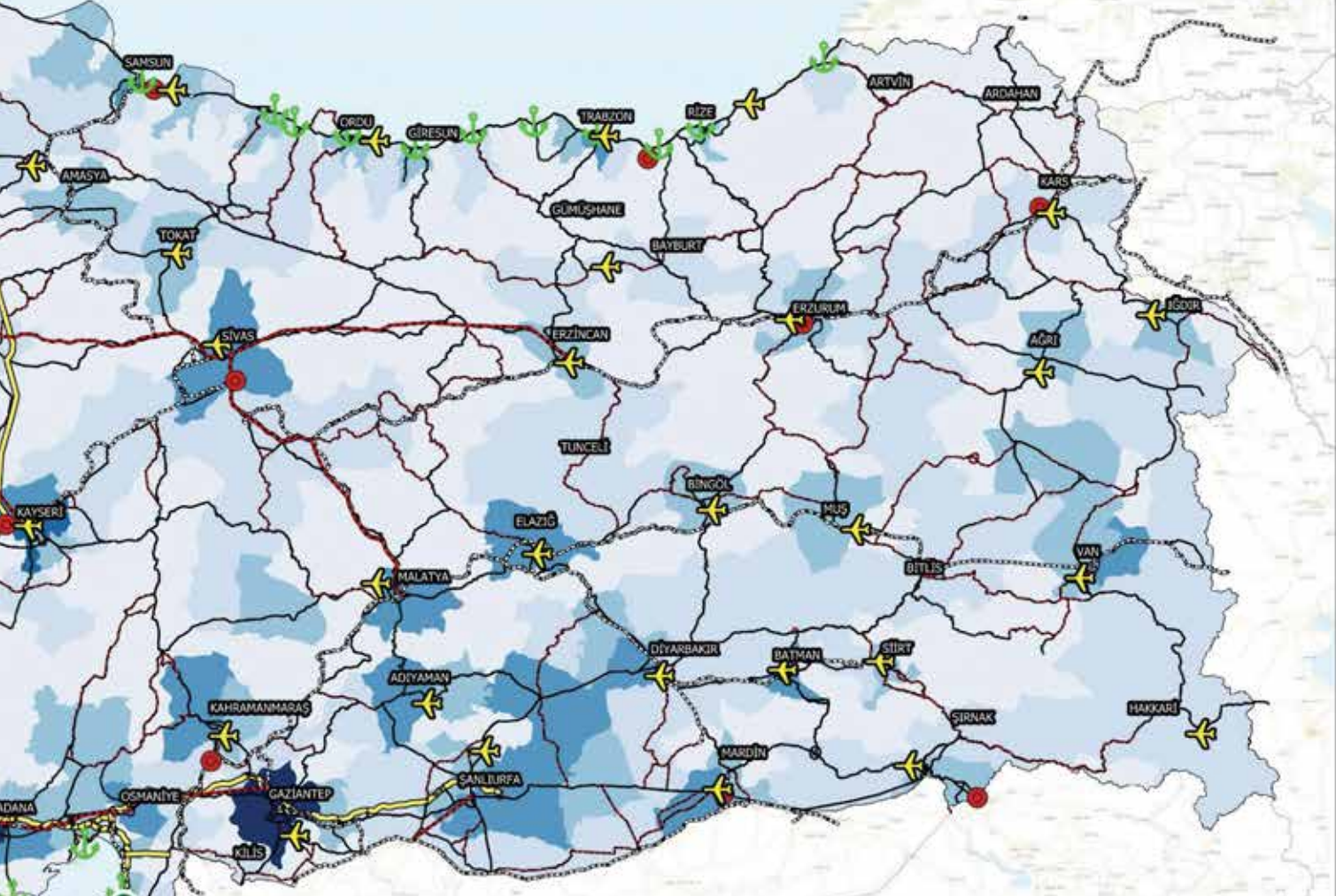
- Logistic Centers

Population

- 2.000 - 60.000
- 60.000 - 120.000
- 120.000 - 250.000
- 250.000 - 500.000
- 500.000 - 650.000
- 650.000 - 954.579

TRANSPORT AND LOGISTICS MASTER PLAN (2029)





Legend

Roads

- Highways
- State Roads (Divided)
- State Roads (Undivided)
- Provincial Roads (Divided)
- Provincial Roads (Undivided)

Demiryolları

- Rapid Rail Lines
- Conventional Rail Lines

Havalimanları

- Airports (Existing)

Limanlar

- Ports
- Dry Ports

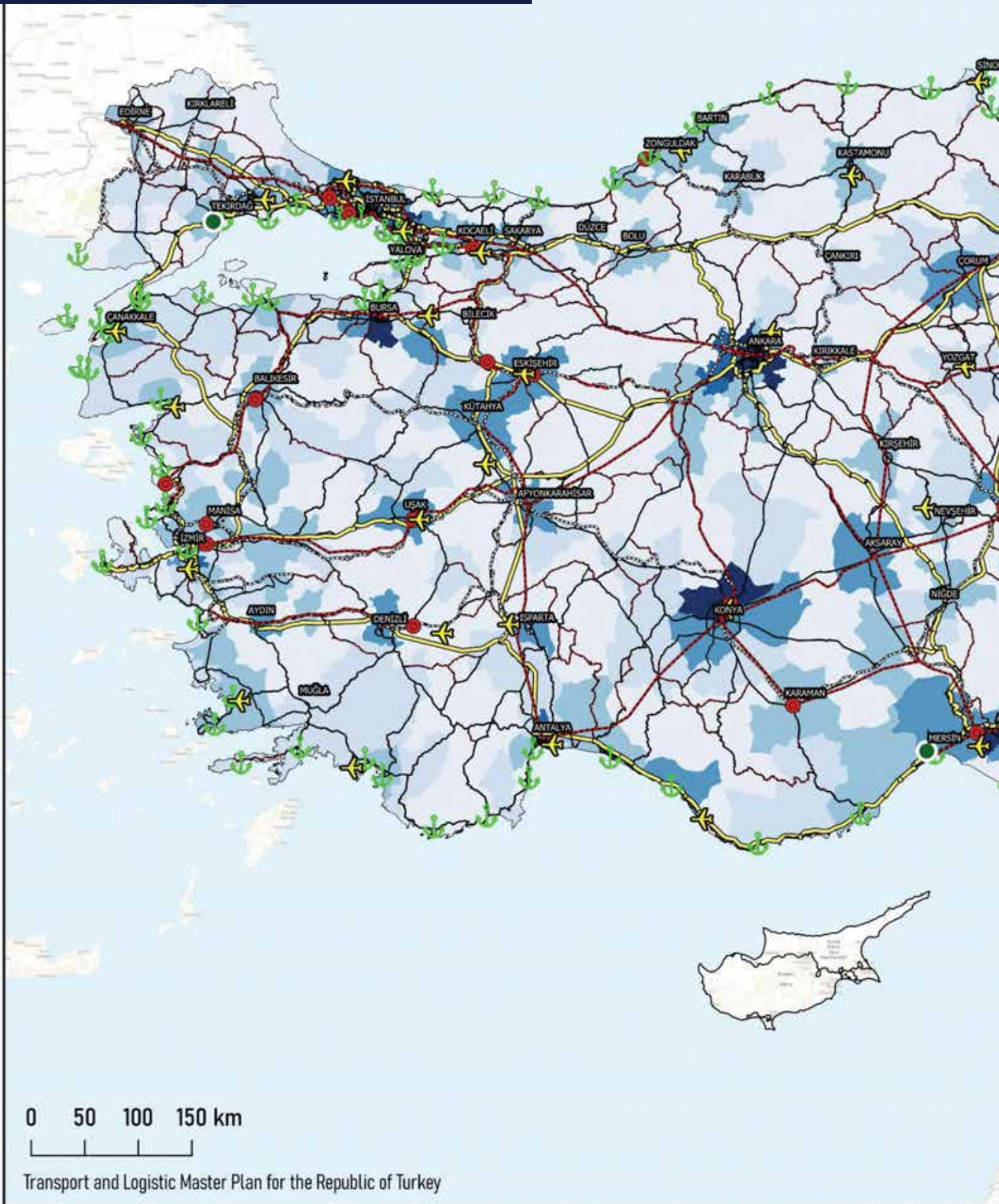
Logistic Centers

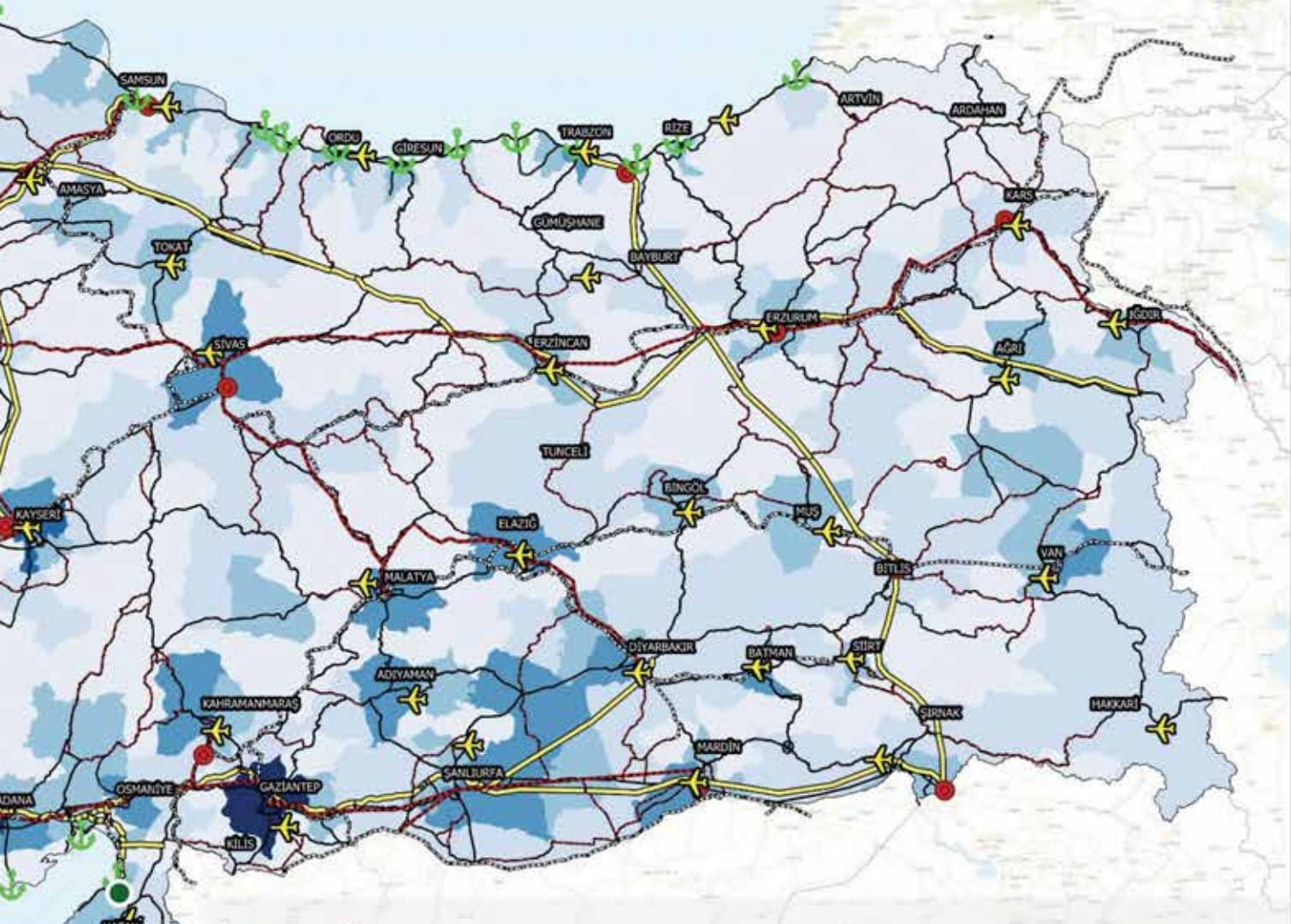
- Logistic Centers

Population

- 2.000 - 60.000
- 60.000 - 120.000
- 120.000 - 250.000
- 250.000 - 500.000
- 500.000 - 650.000
- 650.000 - 954.579

TRANSPORT AND LOGISTICS MASTER PLAN (2035)





Legend

Roads

- Highways
- State Roads (Divided)
- State Roads (Undivided)
- Provincial Roads (Divided)
- Provincial Roads (Undivided)

Demiryolları

- Rapid Rail Lines
- Conventional Rail Lines

Havalimanları

- Airports (Existing)

Limanlar

- Ports
- Dry Ports

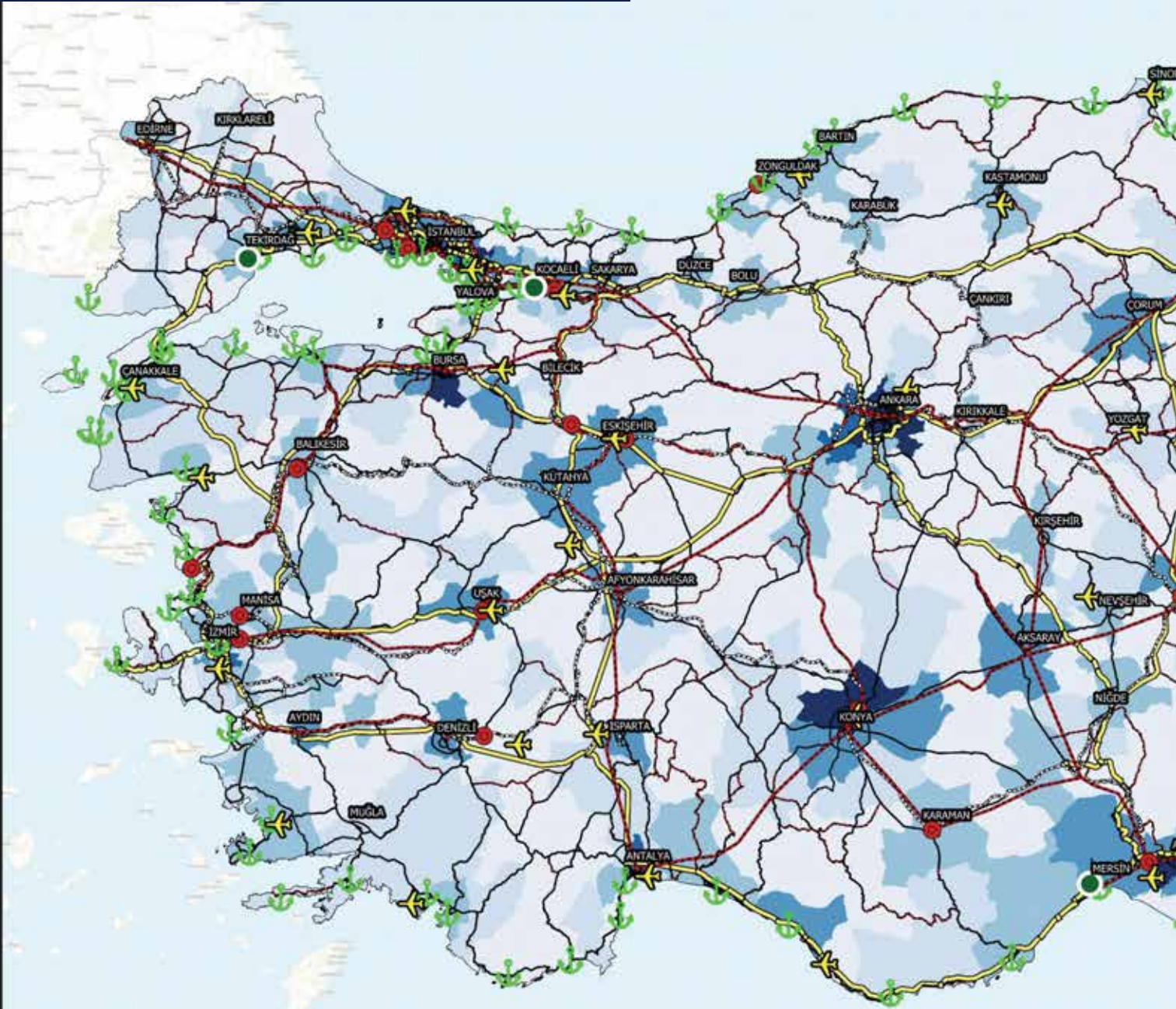
Logistic Centers

- Logistic Centers

Population

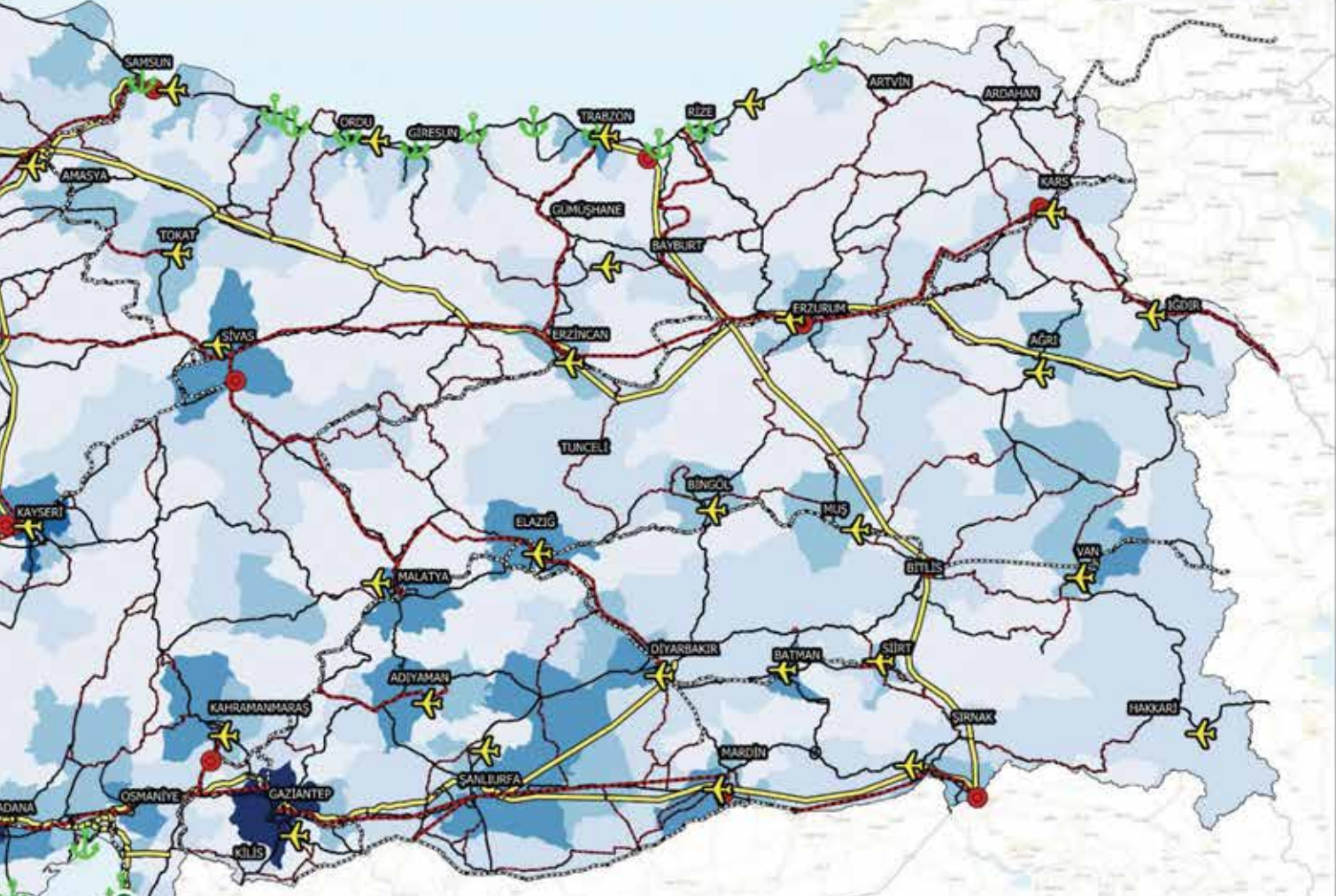
- 2.000 - 60.000
- 60.000 - 120.000
- 120.000 - 250.000
- 250.000 - 500.000
- 500.000 - 650.000
- 650.000 - 954.579

TRANSPORT AND LOGISTICS MASTER PLAN (2053)



0 50 100 150 km

Transport and Logistic Master Plan for the Republic of Turkey



Legend

Roads

- Highways
- State Roads (Divided)
- State Roads (Undivided)
- Provincial Roads (Divided)
- Provincial Roads (Undivided)

Demiryolları

- Rapid Rail Lines
- Conventional Rail Lines

Havalimanları

- Airports (Existing)

Limanlar

- Ports
- Dry Ports

Logistic Centers

- Logistic Centers

Population

- 2.000 - 60.000
- 60.000 - 120.000
- 120.000 - 250.000
- 250.000 - 500.000
- 500.000 - 650.000
- 650.000 - 954.579

TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2023)





Legend

Roads

- Highways
- Other Roads (Divided)
- Other Roads (Undivided)

Logistics

- Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2029)





Legend

Roads

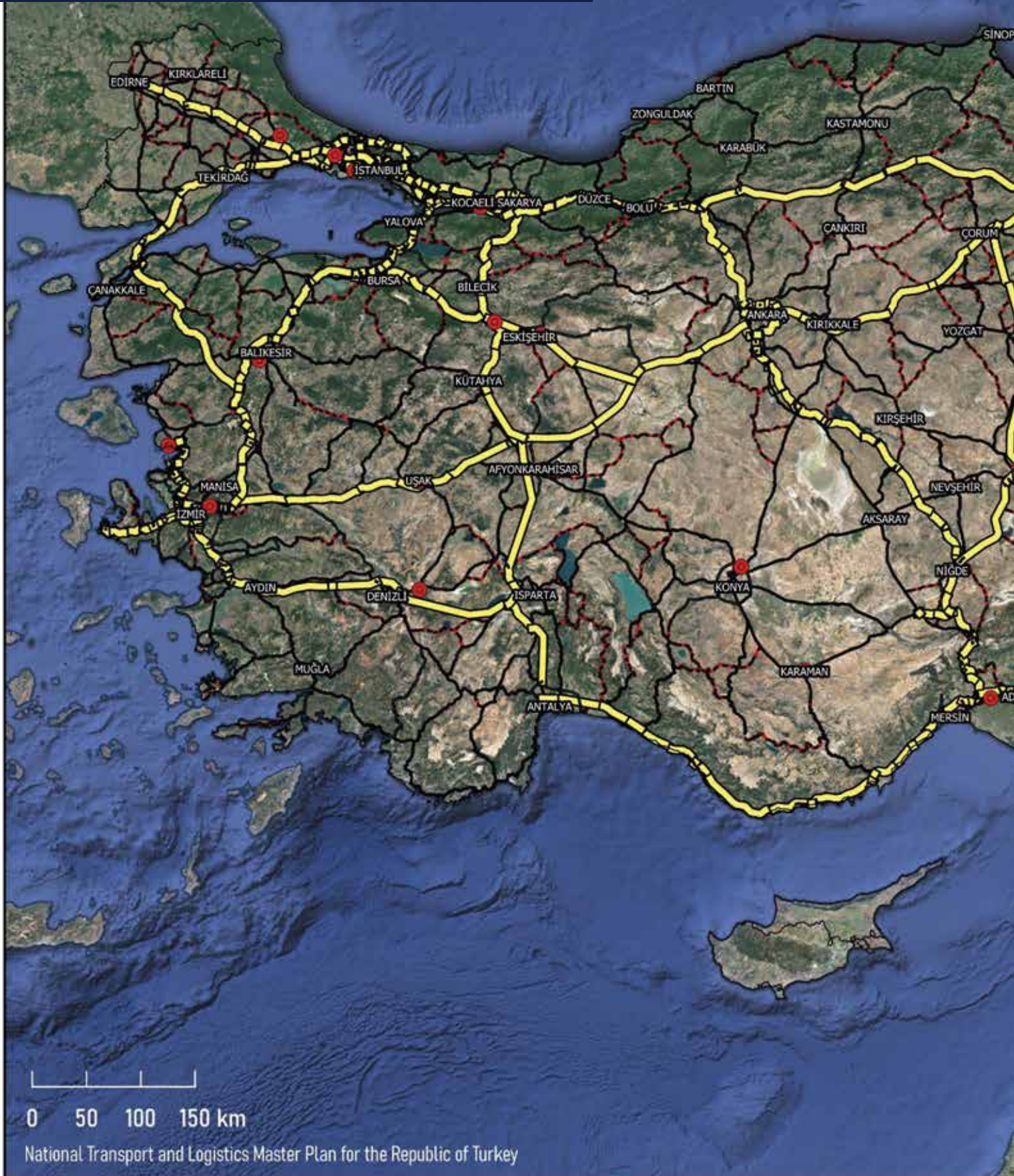
- Highways
- Other Roads (Divided)
- Other Roads (Undivided)

Logistics

- Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2035)





Legend

Roads

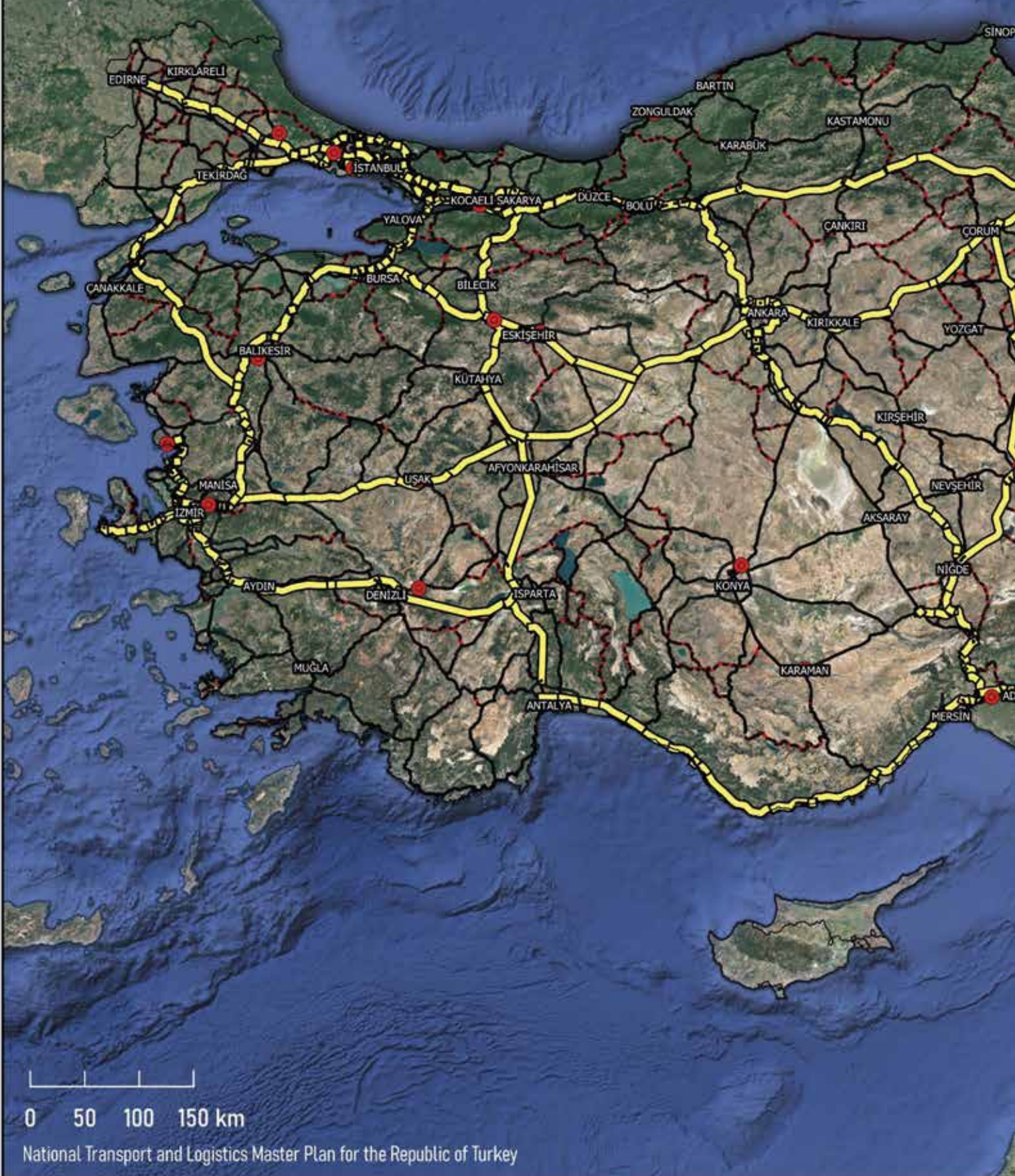
- Highways
- Other Roads (Divided)
- Other Roads (Undivided)

Logistics

- Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2053)





Legend

Roads

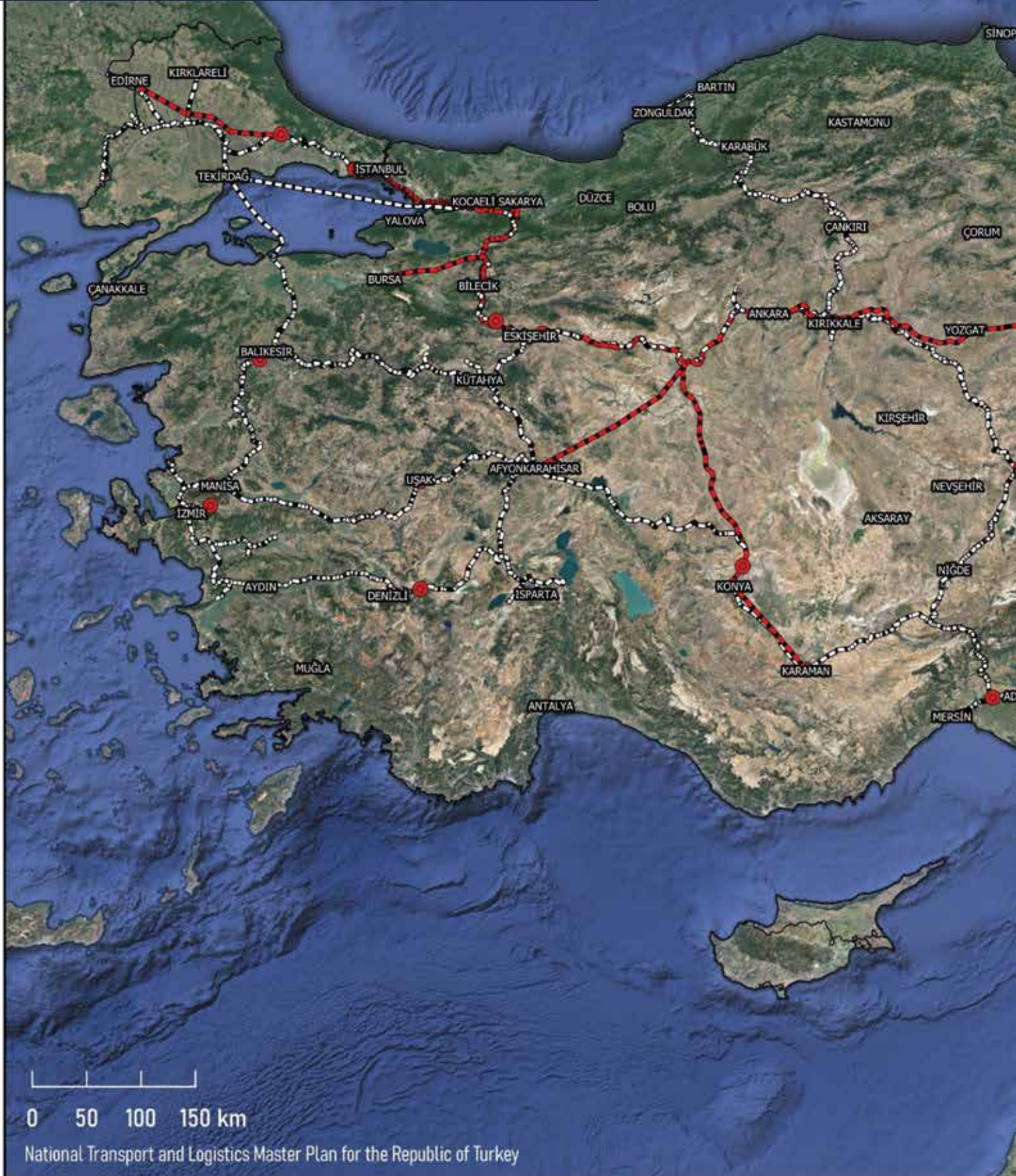
- Highways
- Other Roads (Divided)
- Other Roads (Undivided)

Logistics

- Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2023)





Legend

Railways

Rapid Rail Lines

Conventional Rail Lines

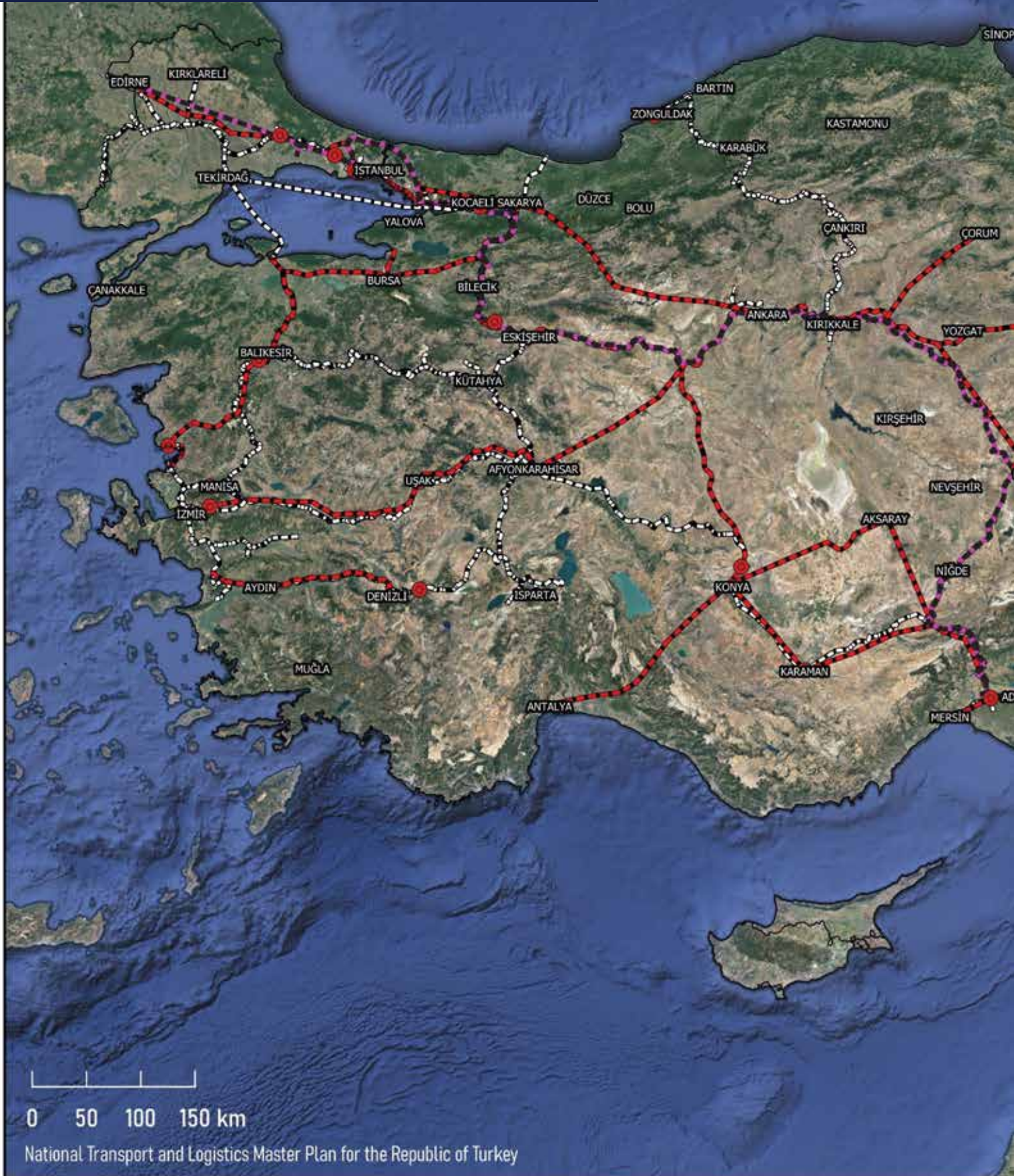


Logistics

Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2029)





Legend

Railways

- Rapid Rail Lines
- Conventional Rail Lines
- RO-LA Operation

Logistics

- Logistics Centres

TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2035)



0 50 100 150 km

National Transport and Logistics Master Plan for the Republic of Turkey



Legend

Railways

- Rapid Rail Lines
- Conventional Rail Lines
- RO-LA Operation

Logistics

- Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2053)





Legend

Railways

Rapid Rail Lines

Conventional Rail Lines

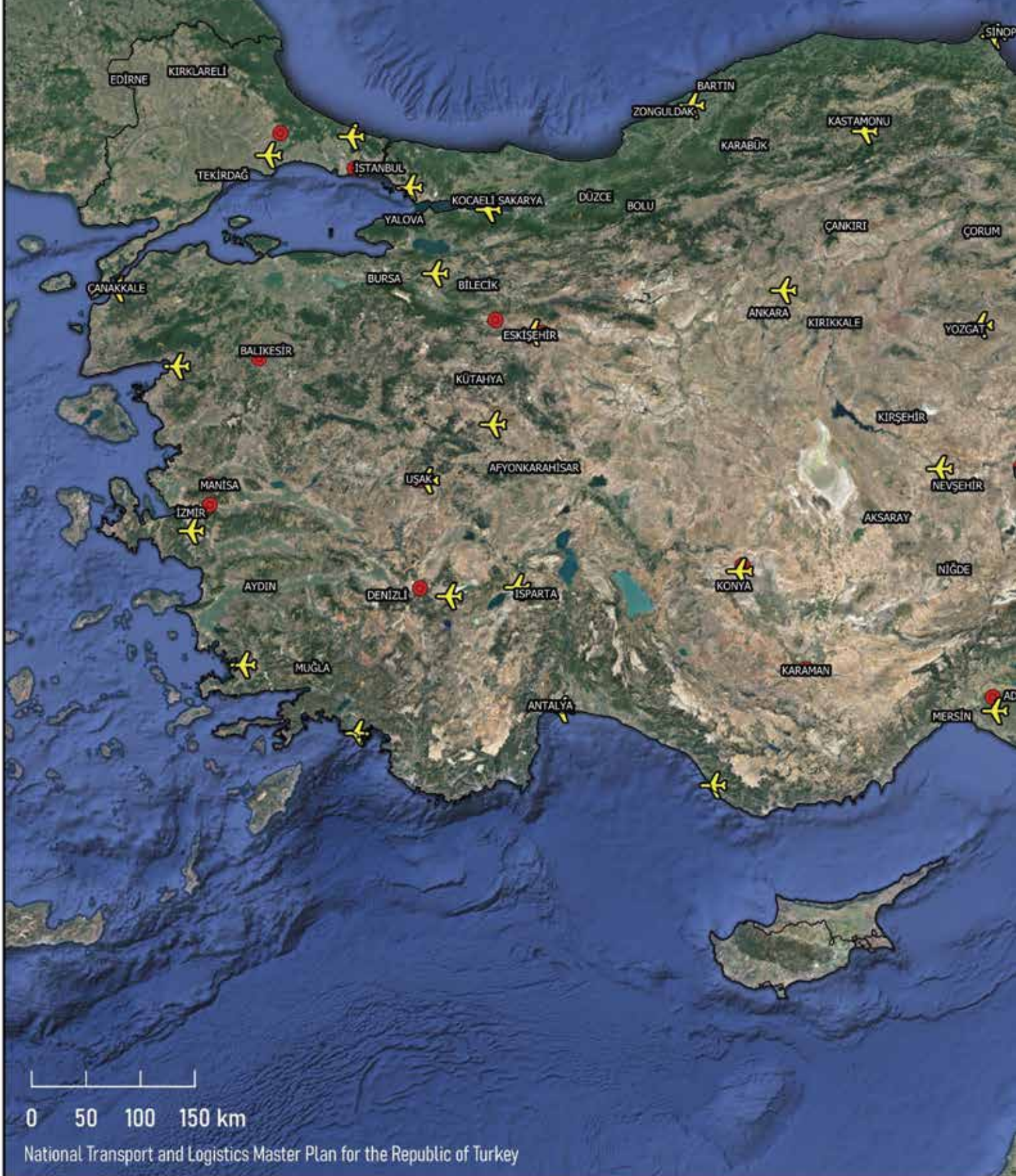
RO-LA Operation

Logistics

Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2023)





Legend

Airports

Logistics

Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2029)



0 50 100 150 km



Legend

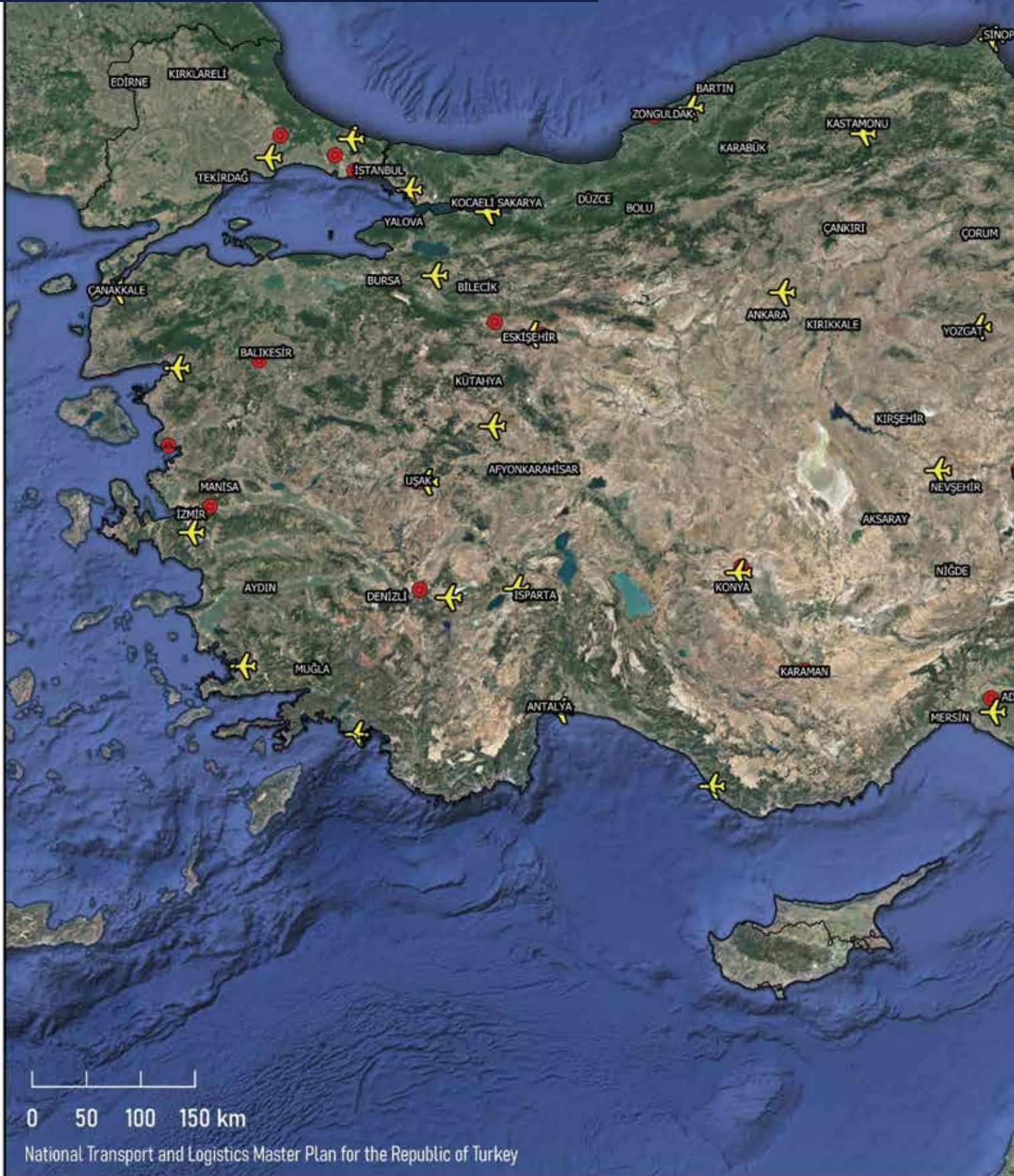
- Airports 
- Logistics 
- Logistics Centres

TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2035)





TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2053)





Legend

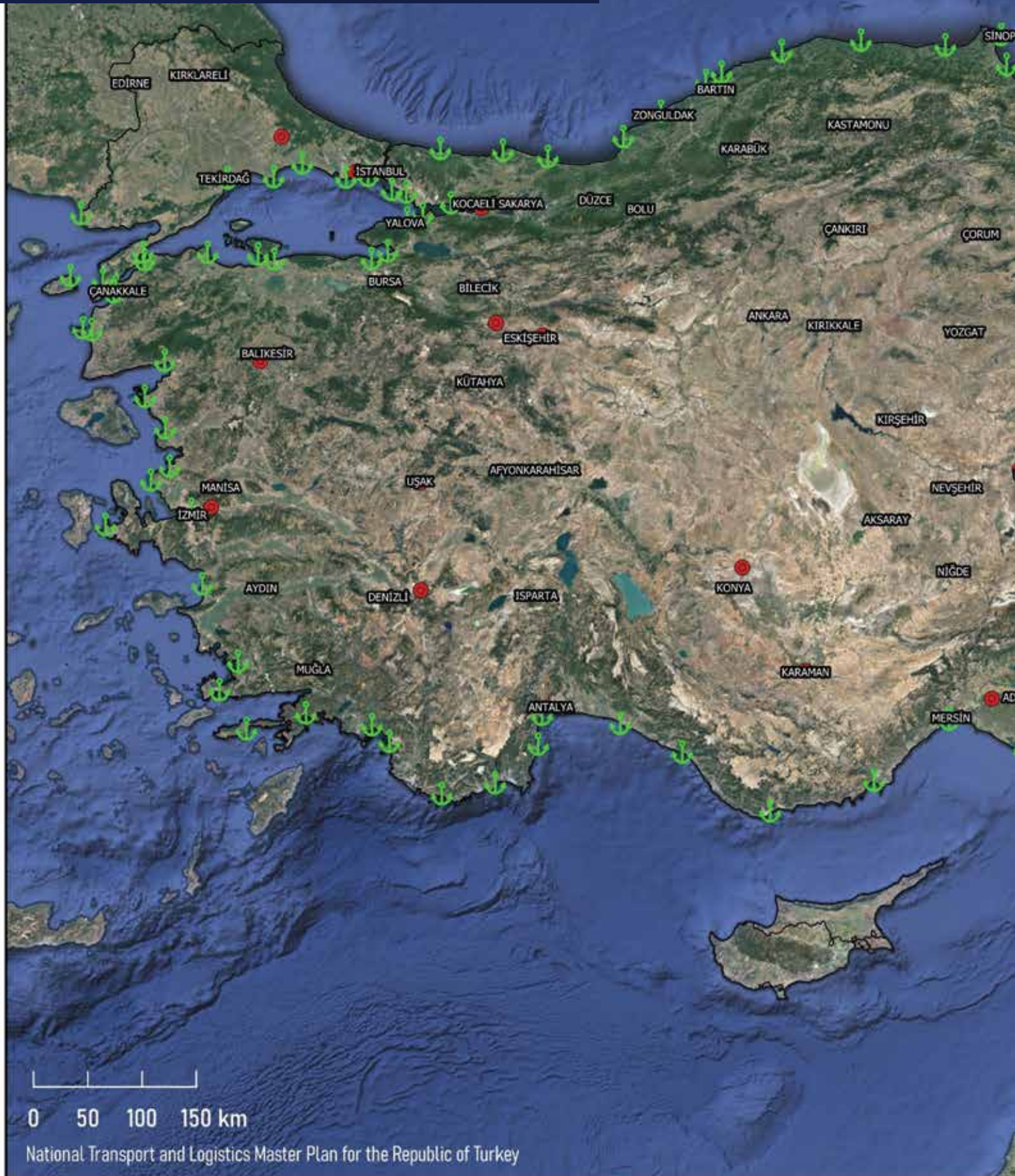
Airports

Logistics

Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2023)





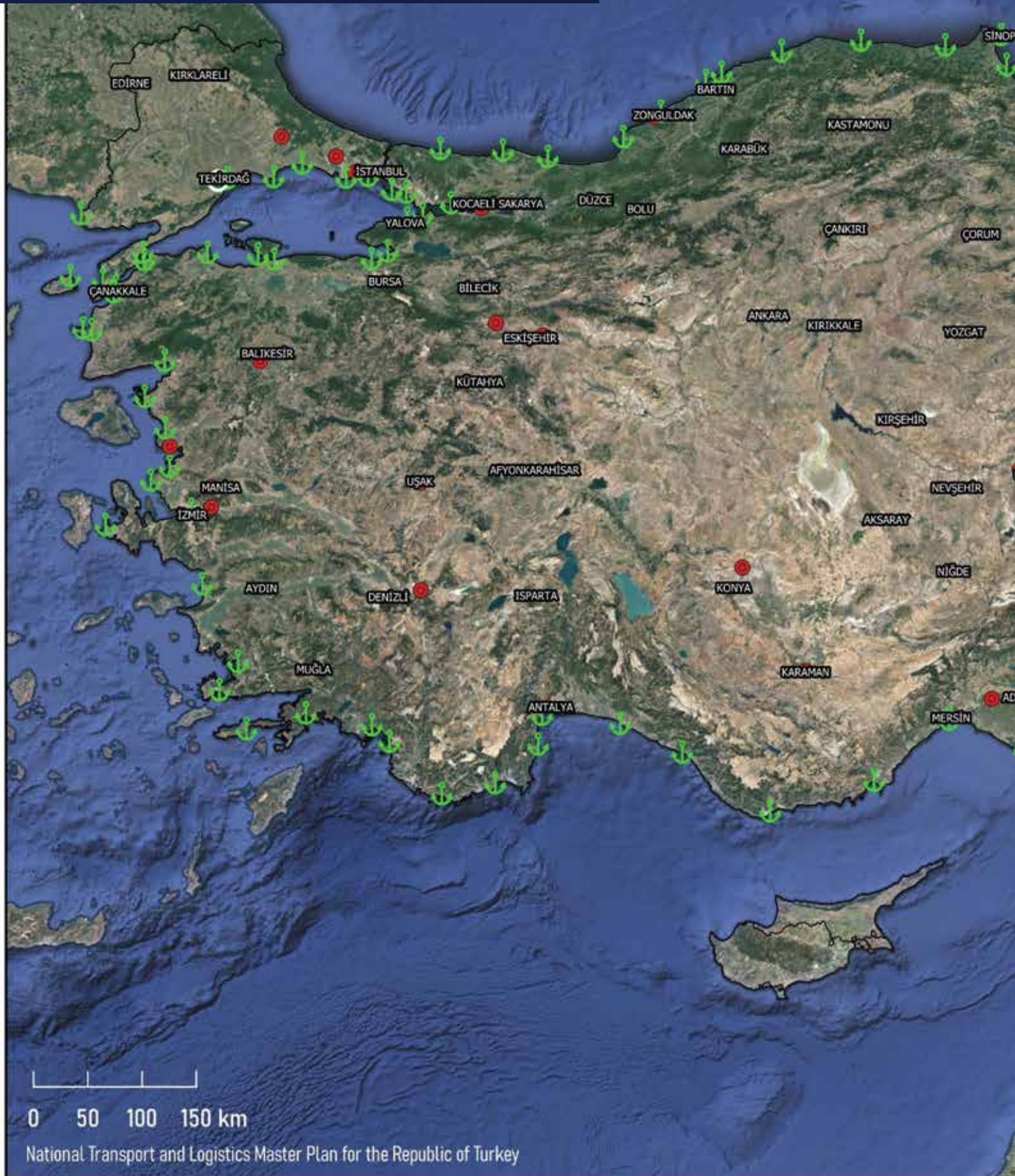
Legend

Ports
Ports

Logistics
Logistics Centres



TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2029)





Legend

Ports

Ports

Dry Ports

Logistics

Logistics Centres

TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2035)





Legend

Ports

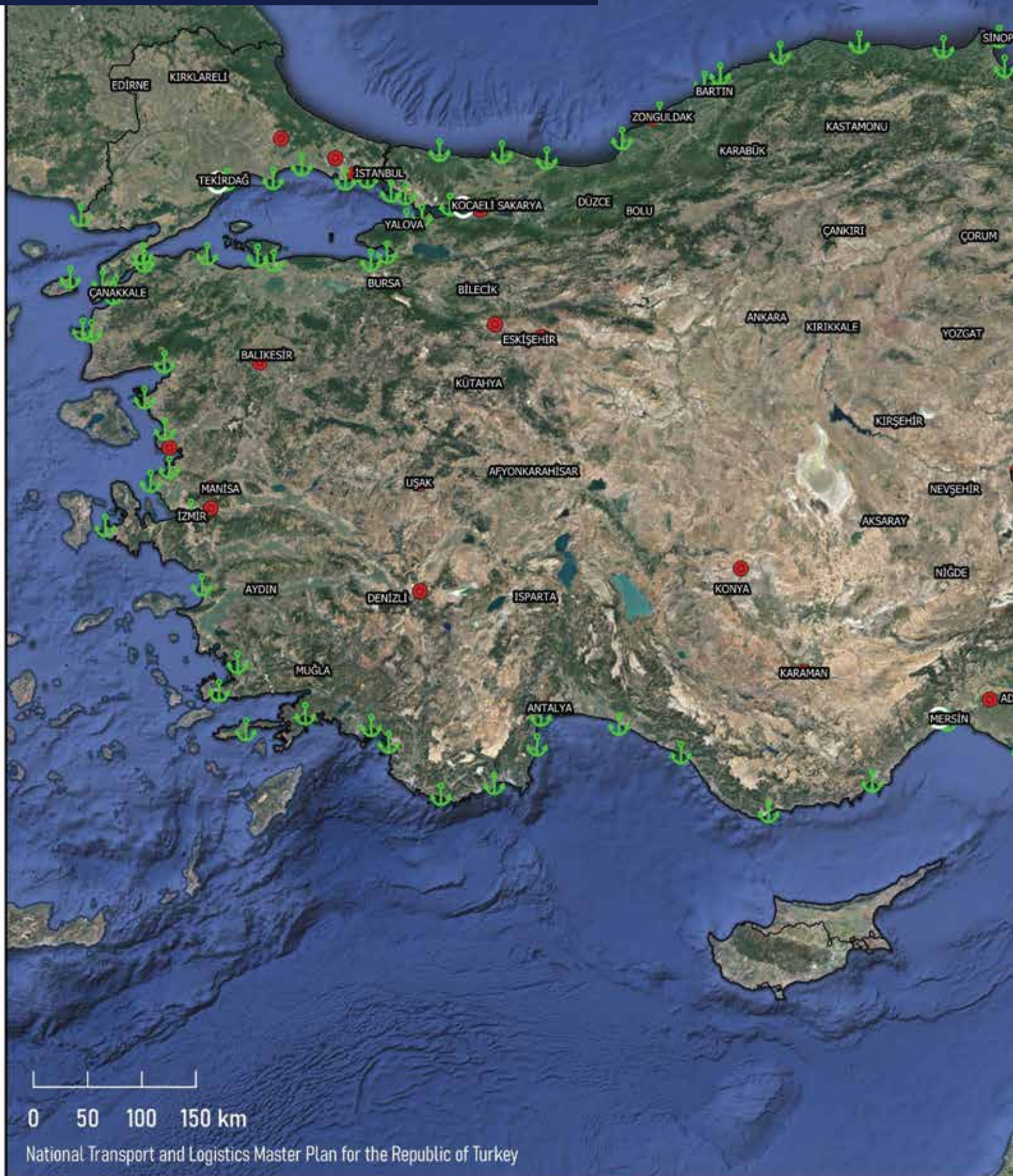
Ports

Dry Ports

Logistics

Logistics Centres

TRANSPORT AND LOGISTICS MASTER PLAN GREEN (SUSTAINABLE) SCENARIO (2053)





Legend

Ports

Ports

Dry Ports

Logistics

Logistics Centres



REPUBLIC OF TÜRKİYE
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