

Supporting the policies on green and resilient Transport Infrastructure

Türkiye's experiences and implementations



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What is Climate Change ?

- ❑ **Climate change** refers to long-term shifts in temperatures and weather patterns. These shifts may be result of natural conditions, such as through variations in the solar cycle. But since the 1800s, human activities have been the main driver of climate change, primarily due to burning fossil fuels like coal, oil and gas.
- ❑ **Transport** is one of the leading causes climate change.
- ❑ Pressure of **fossil fuels**, used for transportation, on the **environment** necessitates a **transformation**.



What is Climate Change ?

- ❑ Transport sector is linked to climate change **in two ways**:
 - the infrastructure used for transport
 - the effects arising from transport
- ❑ Both raw materials and processes used for the development of the transport sector and increase in mobilization arising from the development of the sector create **pressure on climate**.
- ❑ **Road transport** is the mode of transport that has the **largest share**, while it is the **fastest growing** sector recently.



What is Climate Change ?

- ☐ Road transport is the mode that has the **largest share** in many countries and most of the **emissions** from transport originate from **road transport operations**.
- ☐ Air pollution caused by high carbon emissions and the resulting climate change make it necessary for many countries **to develop more environmentally friendly and less fuel-consuming systems**.



LEGAL BASIS FOR THE POLICIES

- ❑ Presidential Decree No. 1 and the Decree Law No. 655 on «**Some Arrangements Regarding the Field of Transport and Infrastructure**».
- ❑ To ensure that all modes of transport are offered **in a free, fair and sustainable competitive environment in an economical, fast, convenient, safe, high quality, environment-friendly manner** and in a way that will protect public interest.
- ❑ To follow **a parallel course** with the reduction of greenhouse gas emissions within the scope of sustainability targets and the developments in transport planning.



THE DEVELOPMENT OF GREEN, SUSTAINABLE AND RESILIENCE IN ROAD NETWORK



Issues taken into account in transport policies in Türkiye

- ❑ Ensuring a **balanced distribution** of transport modes as well as increasing **infrastructural adequacy** of sustainable transport modes;
- ❑ Reducing the negative external effects of highway (**carbon emissions, traffic, etc.**) by increasing the efficiency of rail and maritime transport, especially in inland transport.
- ❑ While the share of railway investments was 33% in 2013, it has been increased to 52% in 2022 and planned to be 64% as of 2023.



2019-2023 Strategic Plan

- ☐ To ensure the integration of all transport modes with a **holistic approach**
- ☐ To develop **combined freight transport** opportunities in national and international freight transport
- ☐ To contribute to the development of **urban transport infrastructure**

KEY POLICY AREAS

- ☐ Phasing out **fossil fuel vehicles** from urban environment
- ☐ Promoting **alternative fuel vehicles** to contribute to the reduction of dependence on oil and greenhouse gas emissions
- ☐ Development of a suitable **fueling/charging** infrastructure



The Green Deal Action Plan

The Green Deal Action Plan prepared by the Ministry of Trade of Türkiye in 2021 is a roadmap aiming;

- ❑ to contribute to the transition of Türkiye to a **sustainable and green economy**
- ❑ to ensure the **integration and compliance** provided within the scope of the Türkiye-EU Customs Union with the changes envisaged by the European Green Deal.

Concerning the implementation of the "Green Deal Action Plan", all public institutions and organizations within the scope of the Action Plan have been instructed.



The Green Deal Action Plan

«...harmonization with the regulations and principles adopted under the European Green Deal to contribute to Türkiye's transition to a **more sustainable, resource-efficient and green economy,»**

Within the scope of the Action Plan, additional issues that fall under the responsibility of the **Ministry of Transport and Infrastructure of Türkiye** have been determined as targets:

- ☐ Developing sustainable and smart transport, green maritime and green port practices, railway transport under the title of “Sustainable Intelligent Transport”,
- ☐ Reducing fuel consumption and emissions,
- ☐ Promoting the use of micro-mobility tools.



Combined Transport Regulation

- ❑ The promotion of combined transport activities within the framework of harmonization with the EU legislation, taking into account the Directive 92/106/EEC of the European Parliament and of the Council of December 7, 1992.
- ❑ The concept of "**Green Logistics**" has been included in the Regulation, taking into account the new developments.



Combined Transport Regulation

- ☐ On the condition of performing at least 200 combined freight transport services per year, and providing at least four of the green logistics activities defined in the regulation, operators will be given a **green logistics certificate**.
- ☐ Companies holding the aforementioned certificate will be provided with a discount in new or renewed authorization certificate fees, vehicle card fees, as well as additional support, concession or exemption from cooperation with stakeholder institutions.



Combined Transport Regulation

- ❑ To increase the share of rail and maritime transport in all transport modes and to develop logistics activities in a way that will serve Türkiye's foreign trade strategies and policies.

Regulation on Supporting the Transfer of Cargo Transported by Road to the Seaway

- ❑ aiming to increase the share of maritime transport in combined transport entered into force in 2022.



Transport and Logistics Master Plan 2053

- ❑ Reduce environmental impacts caused by highways, increase energy efficiency and protect historical and cultural assets.
- ❑ Dissemination of ITS.
- ❑ Construction of highways ➡ **PPP**
- ❑ Annual freight transport share ↓ 72% to 57%.
- ❑ Fast, safe road infrastructure equipped with smart & autonomous technologies will be provided.
- ❑ Electric charging infrastructure will be established according to the travel plans.
- ❑ Appropriate infrastructures will be implemented for electric vehicles.



Adaptation of Road Infrastructure to Mitigate Climate Change

BENEFITS OF DIVIDED ROADS


Although Divided Roads constitutes 42% of our total road network, it serves 83% of the traffic moving in our entire road network

☐ As of 2003 Divided Road Network

Highways	1.714 KM
Divided State & Provincial roads	4.387 KM
Total	6.101 KM

☐ As of November 2022 Divided Road Network

Highways	3.633 KM
Divided State & Provincial roads	25.183 KM
Total	28.816 KM

☐ An increase of 372%  4,68 million tons less CO2 emissions per year



ADAPTATION OF ROAD INFRASTRUCTURE TO MITIGATE CLIMATE CHANGE



- ❑ «Intelligent Transport Systems»
- ❑ «Traffic Management Applications»



- ❑ Within the scope of Intelligent Transport Systems applications in the highway transport network, various improvements are made at both existing and newly established **crossroads** in order to increase the service levels in the management of signaling systems:
- ❑ Depending on many criteria such as **the geometric structure of crossroads, pedestrian and vehicle capacity, the operating speed of the road and the vehicle composition, the management style of the signalized crossroads** is transformed from **definite-time to traffic warning**.
- ❑ With this conversion process, as a result of processing the information coming from the sensors installed at the crossroads in the crossroad control device; **optimum time sharing** is ensured by arranging the **right of way, order and duration for vehicles and pedestrians at the crossroads** according to traffic volume.



Cycling Path Applications

- ❑ **completed** the construction of about **54 km** of **cycling** path so far in highways network,
- ❑ construction of about 39 km of works are under way.
- ❑ project works of the 213 km of cycling path are under construction.
- ❑ 64 km of cycling path is in the planning stage (in blue-print stage).
- ❑ 176 km of cycling path project works have been completed.
- ❑ Final aim  to reduce the emissions from motor vehicles by encouraging the use of bicycles as a mode of transport
-  to reduce the number of motor vehicles used accordingly by including cycling paths on highways.



Cycling Path Applications

- ❑ The image in the slide is Türkiye's longest bicycle and vehicle road which is located between **Hatay's Arsuz** and **Samandag** districts.
- ❑ This road, which connects these districts with a sea view and is 26 kilometers long, also holds the title of being **the longest single-track bicycle path** in the world.



Measures undertaken for socially inclusive infrastructure planning

- ❑ With the new highway projects, **uninterrupted** transportation between the settlements is ensured, thus **shortening** the travelling times and providing **easier access** to the targeted centers.
- ❑ Within the scope of highway projects carried out by Turkish DG of Highways, **landscape projects** and **ecological bridges** applied are considered to be compatible with the **natural environment**, so that **wild animals** can continue their lives in their **natural habitats** without being disturbed.



Measures undertaken for socially inclusive infrastructure planning

- ❑ Creating a transport network that **eliminates differences** at every step to expand **the mobility of individuals with obstacles** and **increase their participation** in social and economic life.
- ❑ Ensuring accessibility in transport in an **uninterrupted** and **safe manner** by some practices like raising awareness, strengthening the governance structure, regulation and supervision, improving institutional capacity, improving the accessibility of infrastructure, superstructure and vehicles, strengthening the integration between transport modes.







Thank you!

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