De-carbonization of Transport in Albanian Sustainable Transport Plan

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TRIPLE-HELIX CONFERENCE ON BIO-BASED ECONOMY
“Supporting the development of bio-based economy partnerships in the Danube Region through a triple-helix approach”

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INSTITUTE OF TRANSPORT – Briefly

- Established on 1985, under the administration of MTI, the unique juridical, public, state and governmental institution specialized on transport studies in respect with the Law No. 7893 date 22.12.1994: “On Science and Technology Development for studies and research on road, rail, maritime and air transport systems”

Mission:
- To maintain and update the Albanian National Transport Plan (ANTP), Transport sector database, in support of MTI strategies for transport sector development, others.
- Coordinator and Local partner in the projects for transport modes and infrastructure, environmental pollution and climate change estimations, urban plan of traffic and mobility in the city.
  - Sustainable transport plan strategy 2016-2020
  - Application in EU program for transport theme
EU Greenhouse gas emissions & the need for decarbonization

• EUROSTAT: CO2 emissions - 80% of all EU greenhouse gas emissions!

Transport: 23% of the EU's greenhouse gas emissions contributing to:
• climate change and global warming
• local air pollution
• noise levels
• biodiversity loss
• natural resources depletion

EU GHG Emissions by sector

‘The EU’s renewable energy and climate objectives – for the potential benefits to EU economy and society’

The targets:
• to achieve a 60% reduction in CO2 emissions within the EU by 2050..
• the greenhouse gas intensity of vehicle fuels to be cut by up to 10% by 2020
• biofuels (used in transport) and bioliquids (used for electricity and heating) production in new installations saving emissions from cultivation, processing, transport and direct land-use change.
Sustainable Transport Plan objectives

- STP - in full alignment with the strategic vision of the Government of Albania and with the main concepts of the European Transport Policy. It provides for the development of an efficient, sustainable and environmentally friendly transport system, able to support the key objectives of economic and social development of Albania and the country’s future integration to the European Union.

**Sustainability targets for transport sector**

- Reduce air pollution impacting on health, crops, etc
- De carbonization (reduction of GHG emissions)
- Energy efficiency

**Indicators**

- Emissions of air pollution: tons/year
- Emissions of CO₂: tons/year
- Energy consumption: toe (tons of oil equivalent)
From the objectives to STP measures

**STP mission:** Accessible, safe, environmentally-friendly, and affordable transport

**Key Drivers:**
- Trips and distance
- Mode of transport
- Efficiency

**Equation:**
\[
\text{total emissions} = \text{transport demand [passenger km]} \times \text{energy intensity [joule per pkm]} \times \text{CO}_2\text{-intensity [CO}_2\text{e per joule]}
\]

**Approaches:**
- Avoid traffic e.g. reduce needs for mobility and distances by means of integrated planning
- Shift traffic and push efficiency e.g. reduce fuel consumption of vehicles and shift traffic towards more efficient modes
- Switch fuel e.g. use low carbon fuels such as sustainable biofuels or renewable electricity

**Total STP benefits:** reduction of CO\textsubscript{2} emissions for the better quality of life!
Thank you for your attention!

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