Kick-off meeting

"Stabilizyng GHG emissions from road transport through doubling of Global Vehicle Fuel Economy: regional implementation of the Global Fuel Economy Initiative"

Initial situation of fuel economy

10 December 2015, Skopje
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The aim of the fuel economy baseline

- To provide grounds for the establishment of national fuel economy objectives/ targets
- To establish past trends and guide the future monitoring of fuel economy
- To give the basis for introduction of suitable economic instruments

Process

- Data analysis of registered light vehicles in Macedonia (basis year 2005) using the methodology of the Global Fuel Economy Initiative (GFEI)
- Calculation of relevant emissions of CO_2 expressed in grams per kilometer (gCO_2/km) for the basis year and for at least two years (2008 and 2013).
- Determining the trend of fuel economy

Why the initial situation on fuel economy was prepared ?

- To examine how current policies and taxation on import of vehicles affected the consumer choice or:
  - To check whether used or new vehicles are imported.
  - To determine whether diesel or petrol engine vehicles are imported.
  - Which types of vehicles dominate the market.
- To determine the trend of the corresponding carbon dioxide emissions expressed in grams per kilometer (gCO_2/km) for the analyzed years as a basis for future policies.

Methodology

- A data base on registered vehicles for the period 2005-2013 was received from the Ministry of Interior Affairs
  - Filtering vehicles weighing less than 3,5 tons (passenger and commercial vehicles)
  - Segregation of the used / new vehicles according to the date of production and date of the first registration
  - Segregation according to the fuel type

Methodology

- Determined emission of carbon dioxide expressed in grams CO_2 of passed kilometer (gCO_2/km) for each type/ model of vehicle
  - Used web pages for setting the gCO_2/km emissions:
    - http://carfueldata.direct.gov.uk
    - http://www.carfolio.com/specifications/.
    - http://www.revueautomobile.ch)
  - Used approximations from IEA/ETSAP information sheet for the vehicles that are using LPG as a fuel and for which there were no data in the internet bases

Methodology

- CO_2 emission is determined according to

  Producer, model, type, fuel and engine size (cc)
- 15% of the vehicles in the bases of registered vehicles in Macedonia do not have any data on the model and type and around 30% from the data of the model and type are incomplete
- Due to the lack of relevant data, CO_2 emission is related to the engine size or

  Producer/fuel/engine size

Pivot tables

Data from internet data bases are processed with Pivot tables and average values of CO_2 emissions are determined

			Average of CO2
Manufacturer	Fuel type	Engine size (cc)	Total
FIAT	Diesel	1248	129
		1560	191
		1598	126
		1910	158
		1997	196
		2198	193
		2287	195
	Diesel Total		162
	Petrol	1108	135