

STUDY ON ASSESSING EMISSIONS OF HARMFUL SUBSTANCES INTO THE ATMOSPHERE FROM TRAFFIC ON I AND II CATEGORY STATE ROADS

Emissions of harmful gases originating from road transport have significant impact on climate changes caused by greenhouse effect, which is a serious jeopardy of sustainable development of the society. At the initiative of the European Environment Agency, the PE "Roads of Serbia", Sector for Strategy, Design and Development initiated the preparation of the Study for assessing emissions of harmful substances into the atmosphere from traffic on I and II category state roads, which will be used to get the data on annual emissions of gases from road traffic which impact global climate changes.

Objective of the Study, prepared by the Institute at the Faculty of Traffic and Transport Engineering in Belgrade, is to meet legislative and international reporting obligations in accordance with the laws adopted in May 2009. Emissions were calculated by using COPERT IV model, a software tool financed and acknowledged by the European Environment Agency. The Study is a logical continuation of the project Determination of the amounts of emitted gaseous pollutants from road traffic by using *Copert IV model from the* European Environment Agency (<http://www.sepa.gov.rs/download/copert.pdf>). Apart from the fact that the calculations were made for the period 2010 – 2012 and the audit of all calculations of emissions from previous work, which covered the period from 1990 – 2009. Due to the use of new software version, the Study gives annual emissions of pollutants by sections on the first and second category of state roads.

Determination of pollutant emissions in road traffic is extremely complex and it required the use of numerous inputs – fuel quality, climate conditions, vehicle fleet and data on the activities of the vehicles. Modeling is also used for forecasting pollutant emissions, which is the basis for decision-making when creating the policy for reducing negative environmental impact of the forecasted road traffic development.

The Study should enable the establishment of information system for monitoring the impact of road transport on air quality in the Republic of Serbia by monitoring the amounts of emitted pollutants. Consequently, the information system will meet the needs for making a part of the annual Report on the condition of the environment in the Republic of Serbia, referring to the emissions from mobile sources.