

Improvement of Motorroads in Georgia as One of the Conditions for Suspension of Climate Change

G. Sopadze

E-mail: gia.sopadze@tsu.ge

Department of Geography, Ivane Javakhishvili Tbilisi State University

1 Chavchavadze Avenue

Climate change is one of the global economical problems in the world. As it is known enterprises, agriculture, fires and mostly motor transport are deemed as initiating reasons of this process. In the last years, in Georgia share of emissions of greenhouse gases from vehicle have exceeded 70%. Such situation was caused by low technical-technological indexes of auto parking and unenviable situation of roads.

It is known that one light gasoline vehicle in good technical working order in the conditions of normal roads educes 14,7kg CO₂ per 100km, but truck – 33kg. In Georgia since 2006 improvement and growth of conductivity of motorroads have significantly reduced number of emissions. For example, we can consider 95km international road section of Tbilisi-Senaki-Leselidze, Tbilisi-Gori-Ruisi.

Since 2000 till 2005 9000 vehicles on average were running on this section per annum during day and night, vehicle needed 2 hours and 30 minutes for covering this section in some period of days, i.e. average speed consisted of 40km/hr. As a result of it, 20kg CO₂ on average was erupted, but 50kg - from trucks. After improvement of road, vehicle covers the same section in one hour without interruption and accordingly erupts 15kg CO₂, but truck erupts 35kg CO₂. Accordingly, less than 10kg CO₂ is erupted per vehicle.

For 2010 annual stream of transport on average on the mentioned section reached 11000 units. As a result of improvement of road, economy of emissions every day consists of 110 CO₂ tons (for information, international trading cost of 1 tone reduced CO₂ consists of 75 USD on average).

According to qualitative and conductivity of road pavement by Road Department (measurement of unevenness coefficient), good, average damaged and bad roads are picked out; as well as intensity of vehicles are calculated both with season and average annual index, according to vehicle categories.

In Georgia there is 6834 km road in total, from which 1528 km has international importance and 5306km has domestic importance. Since 2006, 4213km road has been totally improved. Till 2015 improvement of 2500km road has been planned.

In the conclusion we can say that improvement of road infrastructure may do its significant bit in performance of those obligations of convention for climate change which has been taken by the country.