

**ANALYSIS OF A CDM PROJECT INVOLVING ALCOHOL-FUELED CARS IN BRAZIL:  
LOCAL EMISSIONS DURING THE PRODUCTION AND USE OF THE FUEL ALCOHOL  
VERSUS THE PRODUCTION AND USE OF GASOLINE**

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The paper presents an evaluation of a German/Brazilian governmental project which is a candidate to the Clean Development Mechanism established by the Kyoto Protocol, not ratified yet. The Brazilian government formally established the project by Law 10612, from December 2002, valid for 5 years. It fixes sales tax exemption of R\$ 1,000 in the purchase of each new automobile fueled by carburant hydrated ethylic alcohol. The purpose of the Law is to increase in 100,000 vehicles the alcohol fueled national fleet, with the aim of promoting carbon dioxide emissions reductions. According to the agreement, Germany, in exchange for the 100,000 new cars running on alcohol would send R\$ 100 million to Brazil. Germany's financial contribution represents the carbon emissions reduction credits that the German government expects to acquire from the accord and they will count towards the country's target under the UNFCCC. With regards to the sustainable development point of view and depending on the criteria used in the analysis, the agreement may or may not benefit Brazil. The present work aims at contributing to the discussion through a life-cycle analysis of the local air pollution which will result from both production and consumption of the alcohol in the new automobiles in comparison to the reference scenario. The local aerosol and gaseous emissions of NO<sub>x</sub> and CO, due to the production and consumption of the fossil fuel, were compared with the ones related to the production and consumption of alcohol.