EMISSIONS INVENTORY TO THE ATMOSPHERE OF MOBILE SOURCES IN THE METROPOLITAN ZONE OF THE VALLEY OF MEXICALI, BAJA CALIFORNIA, MEXICO.

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The developed inventory in the region of Mexicali, comes due to the necessity to quantify the emissions of mobile sources, since this one is the main source of emission to the atmosphere in the region, which contributes in an 80% of emissions. Due to the high emissions of HC and NOx from mobile sources, the region presents concentrations above of the ozone norm, various times in the year; being this a secondary pollutant formed mainly by emissions of HC and NOx, combined with the characteristics of the region, some of them are: high temperature (average of 30°C), wind in calm, valley surrounded by mountains.

To give a solution to the current problematic in the region of Mexicali, it was made the inventory of emissions to the atmosphere of mobile sources. It was followed the methodology used before and generated by the authors of this work, in the region of the Valley of Mexico City. It was considered the emissions with an hourly base and georreferenced, where the considered parameters were: average speed of vehicles, classification of vehicles, number of vehicles that circulate in a specific road, meteorological characteristic of the region, etc.

The considered inventory in this region, has been developed with modeling aims, because with the knowledge that 80% of the emissions in the region is originated from mobile sources, dispersion or photochemical modeling can be made to know the behavior and the photochemistry of the polluting agents in the atmosphere.

The results of this work, present the hourly profile of the emissions for HC, CO and NOx for each type of vehicle in the region, as well as the contribution of emissions of each type of vehicle and polluting agent, being everything in georreferenced form.

As annexed result to this inventory, it is feasible to create in this inventory the scenes for modeling, where parameters like reduction of emissions can be handled, substitution from old vehicles to new, among others.