

## **Relationship between income classes and CO2 emissions in Brazil**

Topic: Analyzing greenhouse gas emissions in Mexico and Brazil

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The main propose of this study is to verify and evaluate the overall level of energy and CO<sub>2</sub>-eq emissions by income classes in Brazil, as well as changes and contributions of the brazilian energy matrix associated with these emissions, considering the final demand of families consumption in three income classes, seeking to relate the level of CO<sub>2</sub>-eq emissions in each class with the corresponding efficiency and energy consumption. So are estimated the levels of CO<sub>2</sub>-eq emissions of the income classes through the construction of the Matrix Input-Output and make the conciliation of energy data from National Energy Balance with economic data. The results show that the efficiency of carbon sector presents trend of improvement in almost all sectors. This is because Brazil has used increasingly to cleaner energy sources and consequently with lower levels of efficiency of CO<sub>2</sub>-eq. When assessing the efficiency of carbon class, it was found that even with the improvement in rates of carbon efficiency and sectoral rates of carbon in classes is a trend that the lower income classes have a level of demand for carbon emissions higher, thus a greater volume of carbon emissions for real spending than higher-income classes.