

GHG emissions' tax in Brazil using an input-output model

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The emission of greenhouse gases (GHG) generated by human activity is a major cause of global warming and climate change. There is considerable debate about the choice of the best mechanism to reduce emissions under a climate policy. In this regard, the aim of this paper is to measure the impact of a policy of taxing GHG emissions in the Brazilian economy as a whole and in the different household groups based on income levels. To do so, we derive a price system from a national input-output model that incorporates the intensity of GHG emissions, as well as a consumption vector disaggregated in ten representative households with different income levels. The main results indicate that taxation was slightly regressive, and had a small negative impact on output. There were, however, significant emissions reductions.