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A political-economic analysis of the impact of LPG prices on energy transition of low-income families in Brazil

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PROIBIDO REPRODUÇÃO

A POLITICAL-ECONOMIC ANALYSIS OF THE IMPACT OF LPG PRICES ON ENERGY TRANSITION OF LOW-INCOME FAMILIES IN BRAZIL

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1. INTRODUCTION

In the last decade, the energy transition of low-income families has gone through a reversal process, as the 13kg Liquefied Petroleum Gas canister (LPG) has been replaced by solid biomass as a fuel in Brazilian kitchens highlighting the phenomenon of energy poverty. Notably, the most vulnerable socioeconomic population has increased the consumption of this energy source and women and children are the most exposed to domestic air pollution and accidents, as they are responsible for household chores.

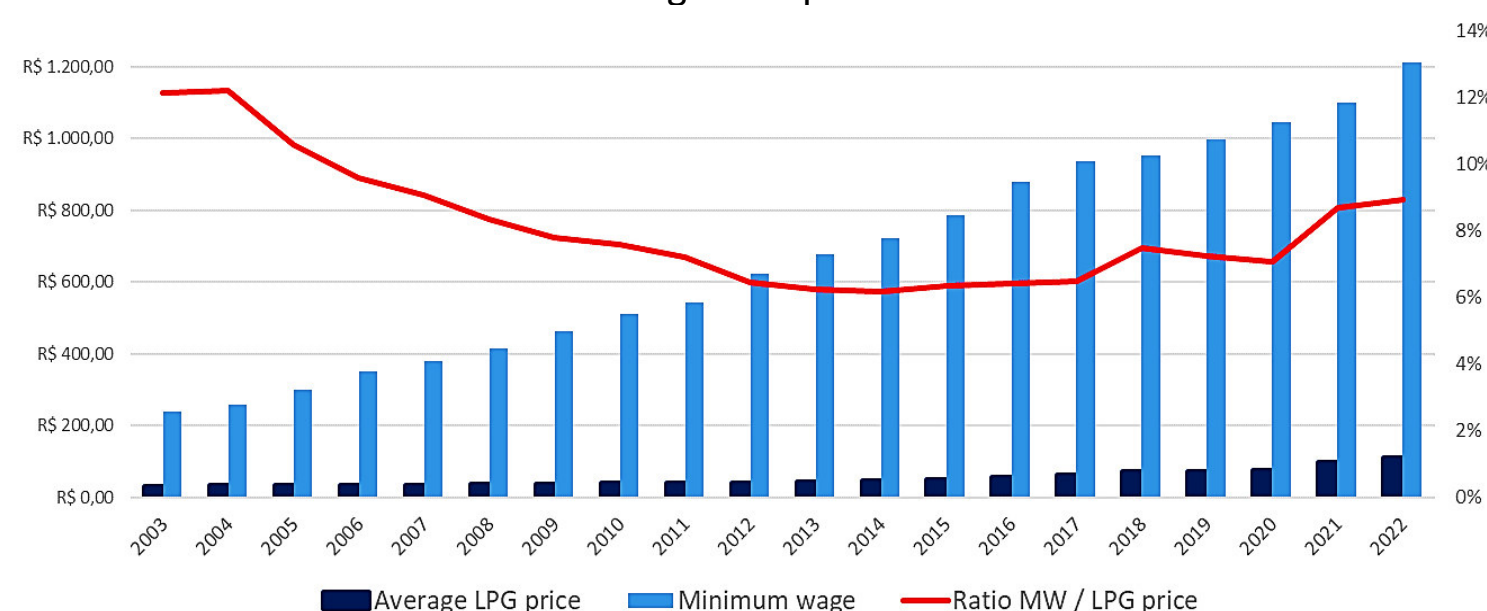
Brazil is also facing a setback on the Sustainable Development Goals (SDGs), especially the 7.1 that has become threatened in relation to the type of fuel used in food preparation due to the increased use of firewood or charcoal for cooking.

2. OBJECTIVES

This work aims to carry out a political-economic analysis of the impact of LPG prices on the setback of the energy transition and on energy access by low-income families in Brazil demonstrating how the correlation between LPG prices, the minimum wage, and the inflation rate in low-income households has led to this setback.

4. RESULTS

Graph 1. Minimum wage^[1], average LPG price^[2] and ratio of minimum wage to average LPG prices.



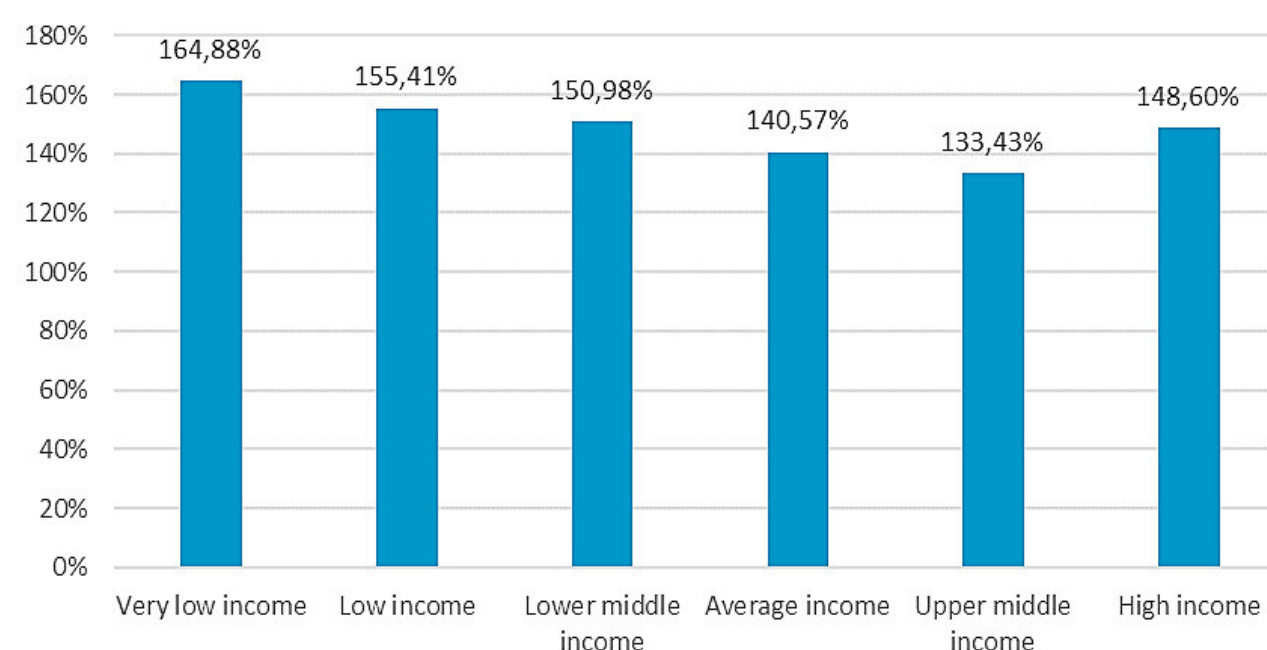
Graph 2. Inflation rate^[3] and percentage increases in the average price of LPG^[2] and the minimum wage^[1].



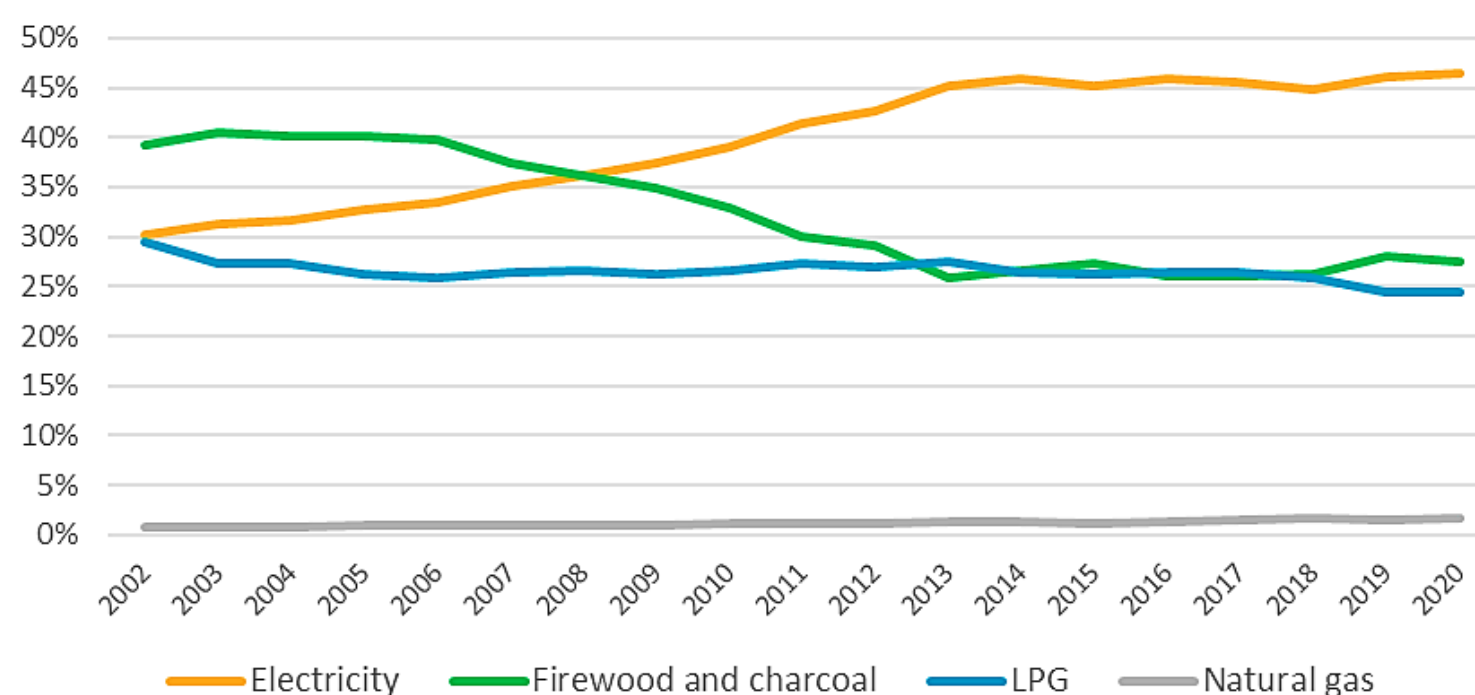
3. METHOD

Exploratory research to collect secondary data from government institutions, statistical databases and literature review to bring the concepts of transition and energy poverty, as well as the history of the transition from firewood to LPG, and the use of fuelwood for cooking.

Graph 3. Inflation by income bracket: cumulative variation^[4].



Graph 4. Final energy consumption in the residential sector by fuel^[5].



5. CONCLUSIONS

- There is a setback on the energy transition process in Brazilian households, concentrated in the most vulnerable population and affecting, especially, women and children.
- Lower-income families have suffered major inflationary pressure and, although the minimum wage has undergone adjustments and a significant improvement in nominal terms in recent years, the impact of the increase in the LPG price affected their level of consumption by these families.
- The current scenario of the COVID-19 pandemic, the high unemployment and inflation rates, and the neoliberal macroeconomic policies accelerated this process of choosing less efficient fuels for cooking forcing families to decide whether to buy food or fuel for cooking.
- Absence of public policies by the federal government that address social issues and even the denial of the COVID-19 pandemic has strongly affected this process.
- Lack of access to modern and economically feasible energy sources violates the constitutional right to the principle of human dignity. It is noteworthy that this situation is directly related to invisible and oppressed bodies and reinforces social stigmas of gender, race, and class.
- Economic and political factors, combined with the health crisis are the main causes of this process in Brazil.

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