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Firewood and charcoal for domestic use in Brazil: technologies and public policies

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Firewood and charcoal for domestic use in Brazil: Technologies and public policies

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KEY NOTES

- This work aims to analyze the Brazilian decarbonization goals and the Sustainable Development Goals (SDGs) in the charcoal production sector.
- There has been no significant improvement in charcoal technologies over the years.
- There is a lack of public policies in charcoal production chain.
- Therefore, there is a setback in achieving the NDCs assumed by Brazil.

1. INTRODUCTION

- In a new decarbonization target, the Brazilian government announced that it intends to reach emissions neutrality by the year 2050⁽¹⁾.
- Due to the economical situation, it seems that this is going in the opposite direction, and against the Sustainable Development Goals (SDGs).
- One example is the growth in the use of firewood and charcoal production to use in households.

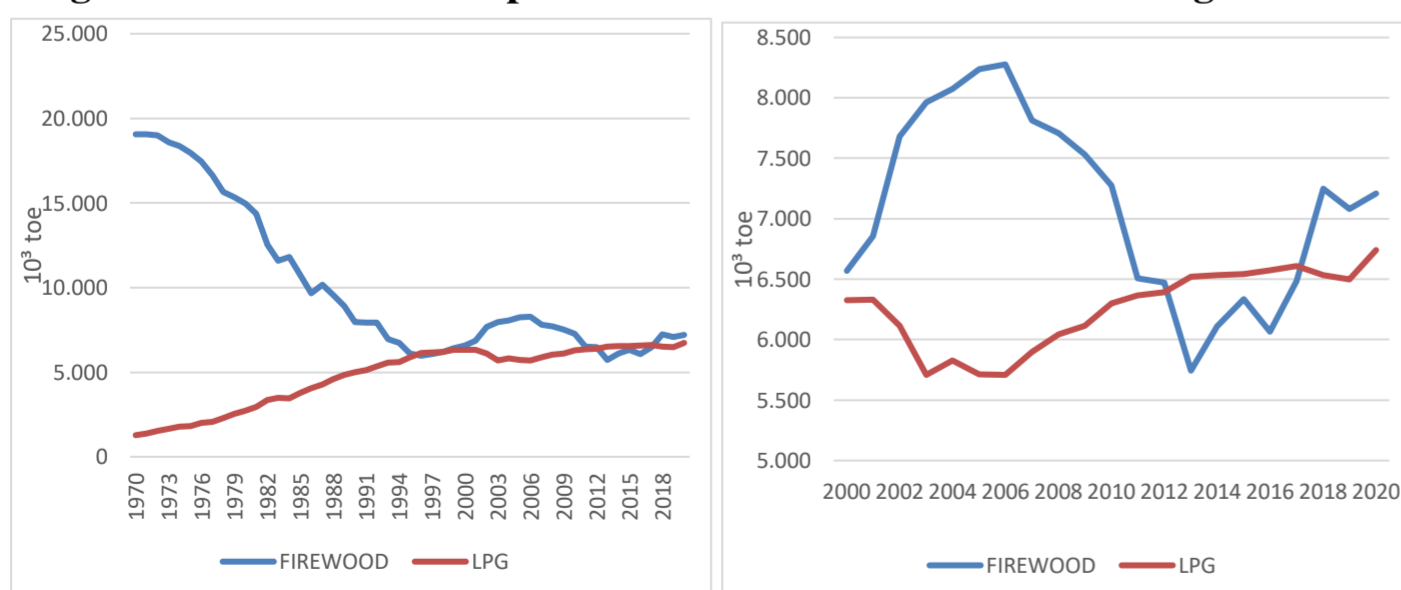
2. OBJECTIVES

- This work aims to present the current situation of technologies to the charcoal production in Brazil, comparing them with the Brazilian decarbonization goals and the Sustainable Development Goals (SDGs) determined by the United Nations (UN).

3. RESULTS

- Since the 1970s, there has been an annual decrease in the use of these fuels in households, mainly encouraged by aid policies for the purchase of liquefied petroleum gas (LPG) (Fig 1). However, due to the crisis (aggravated by the SARS-COVID19), many families have sought an alternative to the high prices of LPG in the country through the use of firewood and charcoal (Fig 2).

Fig 1. Households consumption of firewood and LPG for cooking⁽²⁾



- In turn, the technologies used in the transformation of firewood into charcoal, are mostly of low efficiency and high environmental impact.
- Most Brazilian charcoal is produced in half-orange ovens (Fig 3) and although there has been a slight increase in the use of more efficient technologies in recent years, there is no public policy aimed at encouraging the use of improved technologies to household consumption in Brazil.

Fig 2. a) Poor people lose access to LPG with loss of income and increased costs⁽³⁾. b) Woman cooking with charcoal⁽⁴⁾.



- In addition, due to the high use of this biomass in recent years, Brazil is moving backwards in several SDGs.
- As examples: cases of use of labor analogous to slavery to produce charcoal in the year 2022⁽⁵⁾ and increased inequality of access to clean energy.

Fig 3. a) Half-orange kilns, the most used technology to produce charcoal in Brazil⁽⁶⁾. b) Charcoal production with a low efficiency technology for domestic use⁽⁷⁾.



4. CONCLUSION

- There is a setback in achieving the NDCs in the charcoal production sector.
- Public policies are needed, mainly directed to small and medium producers to encourage the use of more efficient technologies and better working conditions.

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