

Energy Policy
v.123, n.12, p.41-52, Dec.2018

The energy transition history of fuelwood replacement for liquefied petroleum gas in Brazilian households from 1920 to 2016

Suani Teixeira Coelho^a, Alessandro Sanches-Pereira^{a, b, d, *}, Luís Gustavo Tudeschinia,^c,
José Goldemberg^a

a University of São Paulo, Institute of Energy and Environment, Research Group on Bioenergy, São Paulo, Brazil

b KTH Royal Institute of Technology, Department of Energy Technology, Stockholm, Sweden

c International Institute for Applied Systems Analysis, Energy Program, Laxemburg, Austria

d Instituto 17, São Paulo, Brazil

ABSTRACT

In Brazil, there are almost ten million people relying on traditional use of biomass for cooking, which correspond to about five percent of the country's population. The vast majority lives in poor municipalities away from urban centers. The replacement of fuelwood for LPG is the result of an intense urbanization process and governmental intervention based on price regulation and subsidies. In 2015, the energy demand for cooking in the Brazilian households was 46 TJ, LPG covered 51% of the demand and the remaining 49% relied on fuelwood to supply the demand for energy. This study shows that there are enormous variations in the level of consumption and the types of fuels used due to the regional complexity of Brazil. In addition, it also shows the transition from fuelwood for cooking to modern fuels such as LPG does follow a consistent pattern in Brazil. Decisions related to energy consumption and fuel type are strongly influenced by accessibility, affordability and the convenience of the fuel.

Keywords: Energy transition; Affordable energy; Fuelwood; LPG; Energy poverty ;Brazil