OPPORTUNITIES AND POTENTIAL FOR INCREASING SUSTAINABLE CHARCOAL PRODUCTION IN BRAZIL

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ABSTRACT

Brazil is the world's largest producer of charcoal and uses it mainly for the residential and industrial sectors. In the industrial sector the country is the only one that uses this biofuel in large scale as a reducing agent in the steel industry, which makes it the world's largest producer of "green steel". For a long time charcoal production was associated with degrading labor conditions, inefficient kilns, and high rates of illegal deforestation of the Brazilian Biomes (at the moment the concern is focused on deforestation in the Brazilian Legal Amazon). Currently, due to the increase of political participation and environmental and quality restrictions on steel sold internationally, the charcoal production chain seeks to become more efficient. However, a part of the production still takes place in the traditional and less efficient way due to the difficulty of inspection and tracking of charcoal by the government. In the other hand, the sustainable increase of charcoal production can contribute to reducing pressure on native forests while helping to achieve decarbonization targets, since Brazil intends to reduce its emissions by 40% by the year 2030 and reach neutrality by the year 2050. The country has some opportunities to do this: by improving technological efficiency; by taking advantage of degraded land to plant dedicated forests, and by encouraging the use of forest residues in areas of sustainable forest management. Thus, this study sought to evaluate the opportunities cited and calculate the potential that the country can achieve to increase its national production of charcoal. For this, secondary data was used. As results it was verified that by taking advantage of degraded land it is possible to increase the current Brazilian production of charcoal more than 50 times, by using wood residues it is possible to triple the current production, and by increasing the efficiency of the kilns it is possible to increase the current production by 20%. In addition to reducing the pressure on native forests, this means the generation of jobs, income for the workers involved, and environmental gains for the sector.