



Sustainability action · Project Renewable Energy and Energy Efficiency

Biomass fuel-switching, Brazil

Two ceramic factories—Bandeira Ceramic and Capelli Ceramic—are using renewable biomass from agriculture to replace timber from endangered ecosystems.

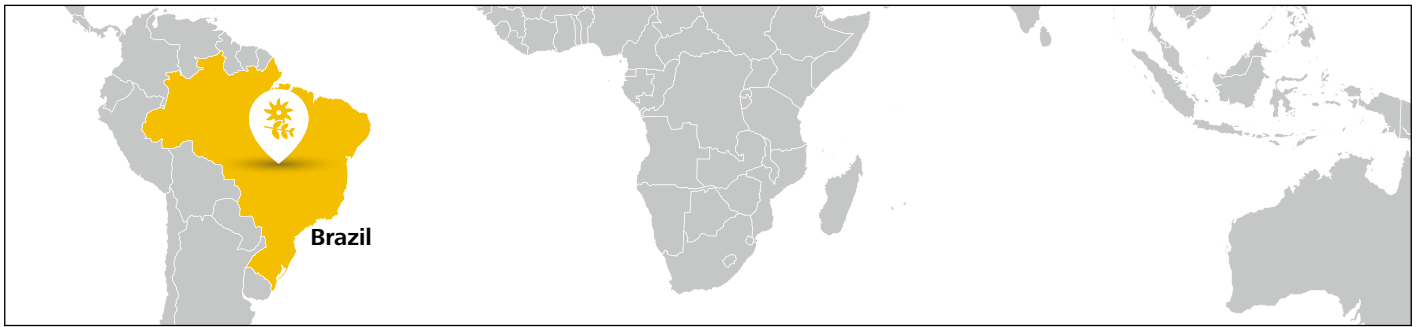
Project

In late 2006, the two ceramic factories started using renewable biomass instead of native, old-growth timber from the fragile Caatinga ecosystem. Today, sustainable bamboo and algaroba wood, sawdust and coconut shells, previously considered as waste, are used as renewable fuels for the kilns. The switch to a new, sustainable production process is positively impacting the Caatinga ecosystem and stimulating investment in environmental and socio-economic initiatives.

The shortage of rivers in the region has reduced access to sources of electric energy. To meet energy needs, native firewood is harvested to produce charcoal, which accounts for 30 percent of the total energy utilized by industries in the region. Harvesting firewood for charcoal production has exacerbated local deforestation. To address this problem, the project owners have decided to use renewable biomass to fire their kilns.

Currently 9 percent of the Brazilian population is illiterate, and an astounding 20 percent of the population has only completed four years or less of primary schooling. Under the Social Carbon Standard, the project owners are partially addressing this problem by educating their workers.

Checklist	Additionality and permanence	3 rd party verified	Transparency	Annual CO ₂ -reduction	Social and environmental benefits	Marketing material
Project 301 352	According to the rules of the VCS	By Bureau Veritas	Provided by Markit Environmental Registry	39,000 tCO ₂ e	As documented in our database	Pictures available



Location

The project is located in Capela, a municipality in the Brazilian state of Alagoas, in the northeastern part of Brazil. It lies in the unique landscape of the Caatinga, which is one of the most threatened ecosystems on the planet.

Project achievements

Socio-economic impact

- Among their workers, Bandeira Ceramic employs three women and one handicapped person, while Capelli Ceramic employs four women, to strengthen gender equality.
- Community events are receiving support from the project owners for philanthropic causes.
- Technical, safety training and literacy courses are provided to employees by Sesi, SENAI and SEBRAE.
- Working conditions at the factories have improved via the purchase of cooling fans, new kilns, expansion/renovation of the cafeteria, and renovation of the toilet area.
- The factories are introducing and using advanced technologies (e.g. Hoffman kilns of high and medium efficiency). Both factories established internal labs for measurement and control.

Environmental impact

- The project owners, in partnership with the Federal University of Alagoas, conduct studies on the use of Elephant Grass as a type of sustainable biomass that can be used as a fuel source for the kilns.
- Ashes generated during the firing process are used to pave roads.



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