

“FOGÃO TIO MARIO” PROJECT

The issue. Today, more than 700 million people in Sub Saharan Africa rely on solid fuels for their cooking needs, the great majority of them with traditional stoves. Due to population growth, this number might reach 850 – 900 million in 2020. Not only traditional cook stoves impose a high dependency on coal, taking a high toll on poor families’ budget, but also are a major course of environmental degradation and a major cost item for families with low income, they represent a health hazard for families. Globally, Household Air Pollution provokes more deaths than Malaria, Tuberculosis and HIV/AIDS combined. In Sub-Saharan Africa, it is the third cause of avoidable deaths and the second risk factor for Disability Adjusted Life Years (DALYs). Lack of access to clean cooking is estimated to have negative consequences reaching USD 40 billion, or 3% of the GDP of Sub Saharan Africa.

The solution. Created in 2012, Fogão Tio Mario is an innovative product with Mozambican patent and entirely assembled in the country by locals. This high quality and durable Inox steel micro-gasification stove converts dry biomass to wood gas and small quantity of charcoal before the gas is burned. The dry biomass is made up of dry vegetable waste, cashew nut shells, dried coconut shells and anything that is found close by. In average 1 kg of biomass last up to 30-50 minutes. After the exhaustion of the fire, the biomass is transformed in small pieces of charcoal, also called biochar, that can then be used as an organic fertilizer or placed in compost pits.

The focus. Help low-income families in Mozambique gain access to clean energy by providing them with an unique solution, which uses entirely vegetable residuals (e.g.coconut cobs, dry leaves, pellet), minimizing deforestation and the purchase of charcoal, while also producing biochar, a natural fertilizer.

Fogao Tio Mario enables Mozambican population to increase their propensity to save, their awareness about their financial status and ability to identify ways to balance their budget. It also equips them with tools to make financial and investment plans and to identify strategies to reduce their level of indebtedness.

