



## The PROTOS plant oil cooker at a glance

### How PROTOS works:

The plant oil is filled in the tank. The burner is pre-heated with a small amount of alcohol or other available fuel source. Through application of the pump, the tank is pressurized with approximately 2 bars. The oil rises into the vaporizer where the heat of the flame converts the liquid into a gaseous mixture. The gas flux emits from a nozzle into the burning area, where it mixes with surrounding air and burns in a blue flame. The power output can be adjusted with a valve in the fuel line.

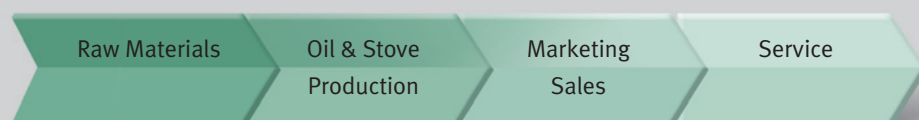
### Core Requirements:

- affordability
- accessibility
- availability

### Facts and figures:

<b>Power range:</b>	1.6–3.8 kW
<b>Usage:</b>	2 liters oil per week for a family of 4-5 → 100 liters per year
<b>Fuel:</b>	diverse plant oils e.g. coconut oil, jatropha oil, cotton seed oil, peanut oil etc.
<b>Efficiency:</b>	40-50%
<b>Emissions:</b>	ten times lower than with high quality kerosene
<b>CO<sub>2</sub>-balance:</b>	neutral

### Supply Chain:



## The Triple Bottom Line:

### 1) Economy:

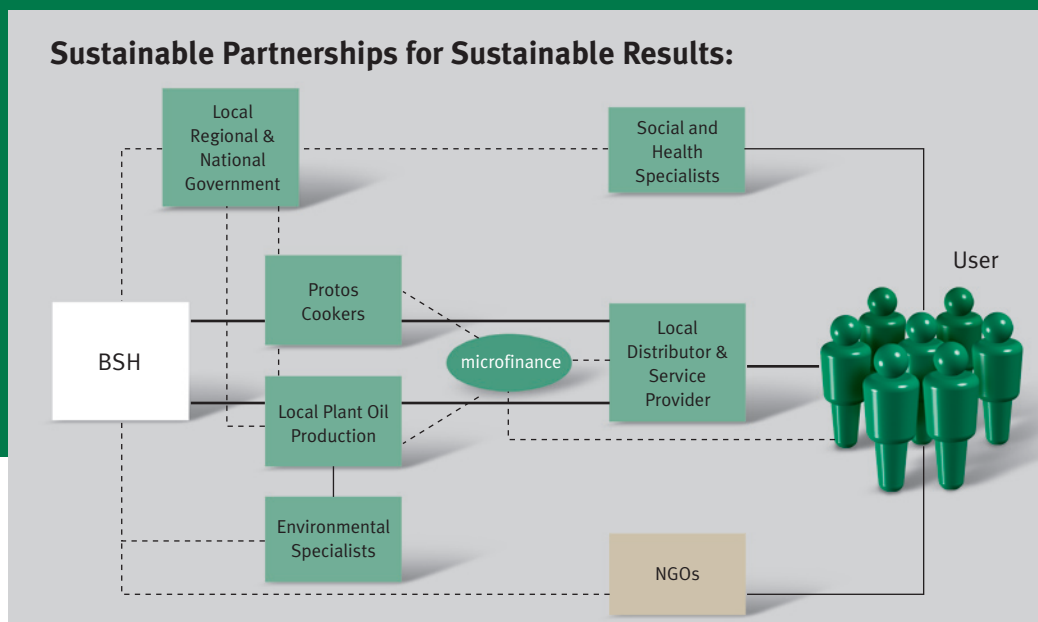
- creation of local employment and income opportunities through local production of plant oil, parts of the stove as well as local maintenance of the stove
- reduced operating expenses compared to kerosene, LPG, charcoal
- reduction of dependency on fossil fuel imports

### 2) Environment:

- PROTOS reduced deforestation, thereby preventing land erosion, desertification and flooding
- PROTOS is CO<sub>2</sub>-neutral

### 3) Health:

- no hazardous emissions (according to the WHO 1.6 million people die every year due to indoor air pollution)
- no risk of explosion or uncontrolled burning



### Bringing PROTOS to the market:

feasibility study → potential for financial self-sustainability → test phase → scaling-up

### BSH – Bosch and Siemens Home Appliances Group:

As one of the world's leading manufacturers of home appliances, BSH is committed to the principles of sustainability. As a pioneer in environmentally friendly production techniques and best possible working conditions, the PROTOS plant oil cooker is just one example for BSH's responsibility toward corporate and society.

To learn more visit our homepage [www.plantoilcooker.com](http://www.plantoilcooker.com) or contact us on [protos@bshg.com](mailto:protos@bshg.com)

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