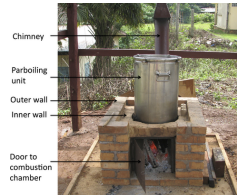


GEM parboiling system Parboiling and flour production equipment for rice

Reduce milling losses, enhance nutritional and organoleptic quality

The technology improves rice parboiling with a new design, replacing traditional methods prone to emissions. Tailored for small to medium-scale processors, it enhances efficiency and product quality, reducing steaming time and improving grain quality significantly.



This technology is **TAAT1 validated**.

Scaling readiness: idea maturity 7/9; level of use 7/9

Gender assessment 4

Climate impact 7

Problem

- High milling losses.
- Decreased nutritional quality of the rice.
- Undesirable texture, aroma, and appearance of the rice.
- Significant time and effort required for the process.

Solution

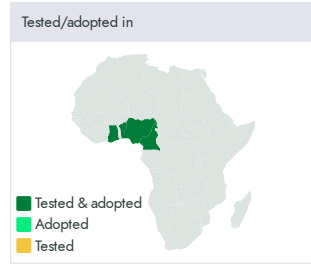
- Reduces steaming time to 20-25 minutes, minimizing emissions exposure.
- Improves grain translucency, reduces chalkiness, and boosts nutritional value.
- Provides low glycemic index, increased fiber, and higher vitamin B availability.
- Allows longer storage as rice flour, aiding food security.
- Made from simple, locally available materials, easily scalable in remote areas.

Technology originally documented by
ProPAS

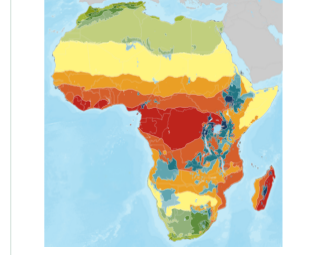
Commodities
Rice

Sustainable Development Goals

Categories
Transformation, Equipment,
Agrifood processing



Where it can be used
This technology can be used in the colored agro-ecological zones.



Target groups
Farmers, Processors

Cost: **400 USD**
equipment

ROI: **70 %**
Internal rate of return for a GEM parboiling system

0.64 USD
firewood per 100kg of rice

IP
Open source / open access



GEM parboiling system
<https://e-catalogs.taatafrica.org/org/technologies/gem-parboiling-system-parboiling-and-flour-production-equipment-for-rice>

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