

# Rice Threshing and Polishing Machines: Axial flow thresher and improved quality polishing

Efficient rice threshing and polishing for premium quality grains, boosting income and market access in african communities.

Axial flow threshers utilize a rotating drum to separate rice grain from the surrounding husk, while abrasive polishers remove outer bran layers. Key parts are made of stainless steel for durability and hygiene. These equipment can be powered by diesel/petrol generators or solar installations for easy use in rural areas.



**AfricaRice**

**Africa Rice Center**  
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Technology from

[ProPAS](#)

Commodities

Rice

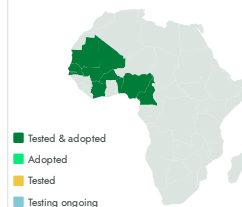
Sustainable Development Goals



Categories

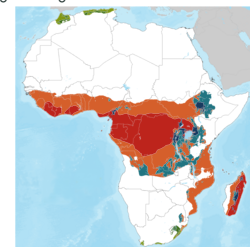
Harvest, Equipment, Post-harvest handling

Tested/adopted in



Where it can be used

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



Target groups

Farmers

✓ This technology is **TAAT1 validated**.

8-8



Scaling readiness: idea maturity 8/9; level of use 8/9

Gender assessment

4

Climate impact

7

## Problem

- High grain losses due to manual threshing methods.
- Inefficiencies in the traditional polishing process, particularly manual rubbing.
- Time-consuming and labour-intensive artisanal practices.
- Difficulty in processing large volumes of rice in communities.

## Solution

- The motorized axial flow threshers reduces grain breakage and loss compared to traditional manual methods.
- The mechanized equipment drastically reduces the time and labour required for threshing and polishing.
- The mobile units are designed to be highly mobile and can be easily transported to even remote rural areas.

## Key points to design your program

The Axial Flow Threshing technology reduces grain losses, improves rice quality, and enhances processing efficiency by replacing manual methods with motorized threshers. This innovation boosts farmers' productivity and income while creating employment opportunities and saving time.

Aligned with SDGs 1, 2, 8, and 12, the technology supports poverty reduction, food security, decent work, and resource efficiency. It complements other rice value chain technologies like storage and parboiling systems, enhancing overall sustainability.

Implemented in **Burundi, DR Congo, Kenya, Rwanda, South Sudan, Tanzania, and Uganda**, this solution transforms rice value chains, improving livelihoods and rural development. Partnering with organizations like AfricaRice ensures effective implementation and long-term impact.

Cost: \$ \$ **4500 USD**

Local thresher

**20 %**

Losses reduced

**15000—20000 USD**

Advanced polishers and whiteners

**3000 USD**

Small bench-top polishers



Patent granted



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