



# AXIAL FLOW THRESHER AND IMPROVED QUALITY POLISHING

Boost your rice production and quality, save time and increase your profits

## TECHNOLOGY / SOLUTION



A thresher is a machine that mechanically separates the rice from the husk without damaging the grains. It is composed of a threshing drum, blower, loading tray, shaker, two paddy outlets, towing bar, and two wheels. A rice polisher is a machine for buffing (or "polishing") kernels of rice to change their appearance, taste, and texture or for transforming brown rice into white rice.

Both these operations are of great importance to enhance the cooking quality and palatability of rice which pushes up its value when sold on markets.



## PROBLEM / ISSUE SOLVED

- Most rice farmers in Sub-Saharan Africa use manual methods to add value to rice
- The artisanal methods lead to high losses as a result of grain breakage, taking up a lot of time and labor and consequently making it impossible to process the large volumes of rice harvested
- Little adoption of pre-existing mechanized equipment for threshing and polishing across rice-growing areas of SSA because of the capital investment and low-performance levels when it is not configured well



**GOOD FOR**  
Small-scale farmers  
Commercial farmers  
Rice milling enterprises



## BENEFITS

- ✓ Affordable and allow processing of large volumes of high-quality grain while keeping costs low
- ✓ Motorized rice threshers and polishers are available in a mobile version and save time, transport and labor costs
- ✓ Compact diesel/petrol generators and solar panel installations are used in mobile units to supply power
- ✓ Possibility for local artisans to manufacture motorized units for threshing and polishing
- ✓ Less damage and grain loss



**Agri-Food Processing**  
Speciality



**Rice**  
Commodity



**US\$4,500** for thresher (unhusked grain  
output capacity of 0.5-0.75 ton per hour)  
**US\$3,000** for small bench-top polisher  
Initial investment



**16 - 20%**  
(Percentage reduction of grain losses)  
Added value

**ALREADY IN USE IN**



Senegal, Nigeria, Mauritania,  
Mali, Ivory Coast, Gambia,  
Cameroon, Burkina Faso, Benin

## HOW DOES IT WORK?

**Threshing machine:** The crop is loaded onto the machine and the pegs of the threshing cylinder strike the material, separating the grains from the straw. The rice husks are completely removed and the grains cleaned by a set of separating sieves and a blower or vacuum cleaner.

**Polisher:** Mechanical rice polishers are abrasive machines that remove the fibrous layer of bran and leave behind the starch-rich grain.

