

CLEANSTAR MOZAMBIQUE COMMUNITY BIOINNOVATION LIMITED IS AN INTEGRATED FOOD, ENERGY AND FOREST PROTECTION BUSINESS

**WE INVEST AND OPERATE ACROSS THE VALUE CHAIN.
WITH VALUES.**

CULTIVATION

We help smallholder farmers implement agroforestry cultivation systems on their own land. We provide the seeds, technical expertise, and route to market for their surpluses.

PROCESSING

We build and operate agro-processing infrastructure, enabling value to be added to crops, producing a range of food, feed and cooking fuel products.

DISTRIBUTION

We operate the storage, transport and retail infrastructure required to ensure that the products reach the strong demand present in Mozambique's cities.



"In Mozambique, 44% of children under the age of five are stunted due to chronic illness and poor diet... children living in rural areas are almost twice as underweight as those living in towns and cities."

UNICEF



"Doubling African food production by mid-century will require non-conventional approaches, particularly since so many of the continent's soils are depleted, and farmers are faced with a changing climate."

World Agroforestry Centre



"The convergence of clean technology at the base of the pyramid offers unparalleled opportunity for innovation and growth."

Stuart L Hart

"Once upon a time, Africa boasted seven million square kilometres of forest. A third of that has been lost – most of it to charcoal."

United Nations

ENERGIZING AFRICAN AGRICULTURE

A BLEAK REALITY

THE CHANGE WE BRING

A BRIGHTER FUTURE

**MORE FOOD,
BETTER HEALTH,
STRONGER LOCAL
ECONOMY**

**POVERTY,
POOR HEALTH,
ENVIRONMENTAL
DEGRADATION**

Farmers have limited market access for their crops, which leads them to cut down trees to make charcoal for urban consumers for which demand and prices are growing strongly.

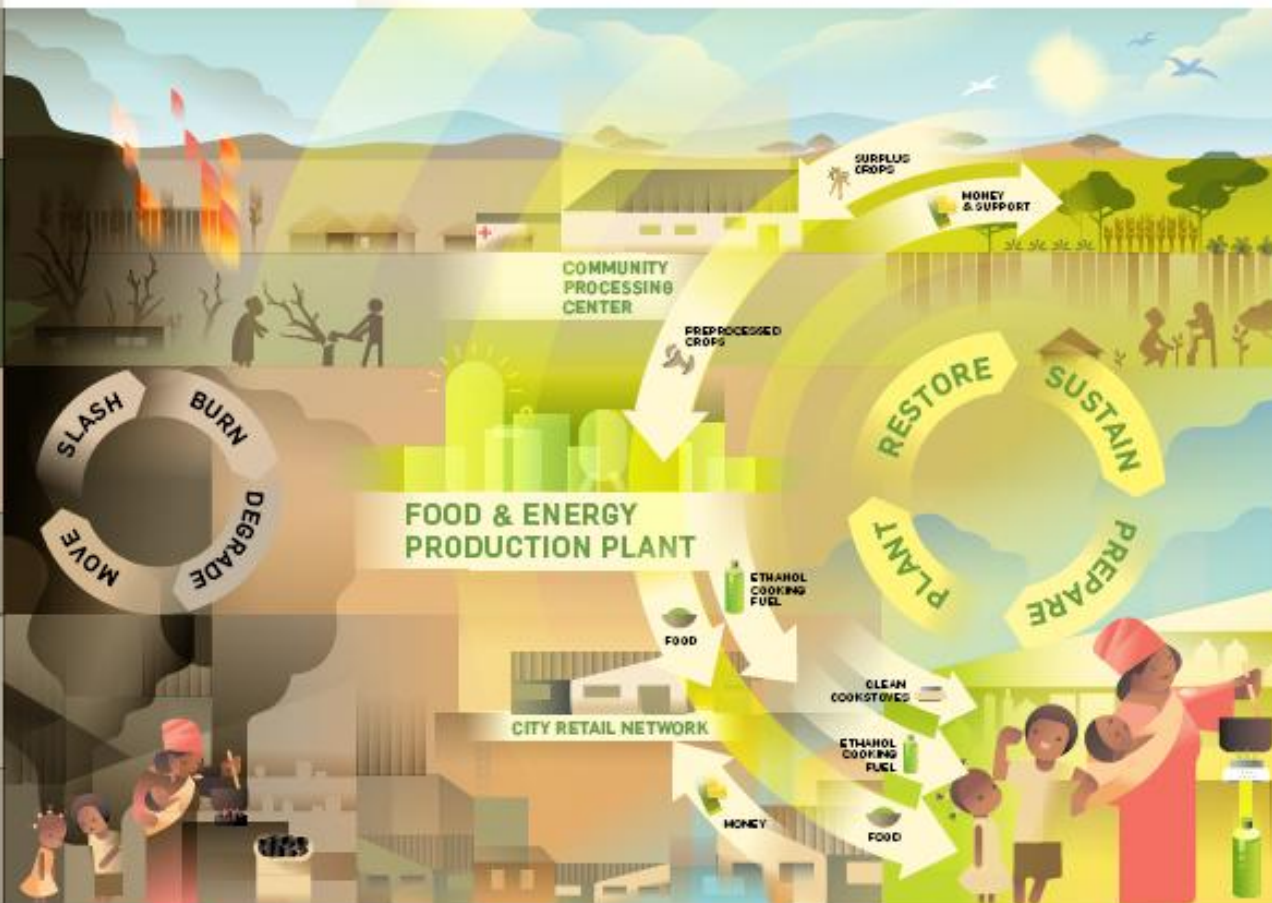
Farmers have a poor understanding of family health, which leads them to grow low-maintenance staple crops with limited nutritional value. 44% of Mozambican children under five are stunted due to poor diet and chronic illness.

Farmers lack technical skills and inputs, which leads to poor farming practices such as slash-and-burn methods that deplete soils and result in further forest destruction.

Families are increasingly buying imported food due to limited domestic supplies.

Urban families recognize charcoal as dirty, inefficient, and unhealthy, but have no real alternatives. Cooking indoors with charcoal is equivalent to two packs of cigarettes per child per day.

Charcoal prices have doubled in the last 3 years due to receding forests and growing urbanization. Charcoal sales in Maputo now average \$30 per month per family.



By 2013, 3,000 families practice conservation agroforestry to produce their own food and sell surpluses for cash.

2.4 million indigenous trees will be planted in communities.

Greater crop diversity improves family nutrition levels, while the sale of crop surpluses delivers 500% improvement on incomes compared to charcoal production.

By 2014, 20% of Maputo households are using clean, safe, convenient, and affordable ethanol-based cooking solutions, preventing 4,000 hectares of forest destruction annually.

Reduced indoor air pollution improves family health.

Spending on cooking fuel and food drives rural development and environmental restoration.

CleanStar
Mozambique

novozymes
Rethink Tomorrow