

# FIGHTING FOOD LOSS IN RURAL AGRICULTURE

**Better cold storage means less waste,  
safer food and stronger communities.**



In low-income countries, small farmers and fishermen face immense challenges in preserving their harvest.

Without access to cold storage, a big part of the produce and fish is lost before it even reaches the market – due to poor handling, delayed collection, and lack of refrigeration.

These losses threaten livelihoods, reduce income, and contribute to food insecurity.

## THE IMPACT

Not all food that suffers post-harvest damage is thrown away.

Much of it – especially fish, fruits, and vegetables that have lost freshness or visual appeal – is still sold, but at significantly reduced prices.

**While this may seem like a solution,  
it creates a dangerous cycle:**

- Poor storage leads to poor quality.
- Poor quality leads to lower prices.
- Lower prices attract the most vulnerable.
- Increased risk of foodborne illness.



By improving cold storage access, this cycle can be broken.

Farmers and fishermen can preserve quality, sell at fair prices, and protect the health of their communities.

# THE SCALE OF THE PROBLEM



**Up to 20–30%**

**of all agricultural production**

in developing countries is lost post-harvest – especially for perishable crops like fruits, vegetables, and tubers.



**27–39%**

**of all fish caught globally**

is lost or wasted after harvest annually.

In low-income countries, over 70% of these losses are due to quality degradation – because the fish loses freshness, value, and marketability.

These losses not only reduce income for fishermen and farmers, but also limit access to affordable protein and crops for local communities.



## PROTECTING LIVELIHOODS BY REDUCING LOSS

For the many smallholder farmers who produce the majority of food in these regions, the post-harvest can cut income by up to **15%** – a serious blow for families already living on the edge.

Even a small reduction in sellable produce can mean the difference between covering basic needs or falling deeper into poverty.

Lacking cold storage or preservation options, farmers are vulnerable to market pressure and post-harvest deterioration, and are compelled to accept low prices just to avoid total loss.





# THE ROLE OF COLD STORAGE

## Access to cold storage is a game-changer for food systems in off-grid regions.

The SOE 215 solar-powered freezer helps preserve the quality of perishable goods, reducing post-harvest losses, extending shelf life, and supporting safer, more stable food supply chains.

In areas where infrastructure is limited and the impact of post-harvest loss is high, this appliance brings practical changes, powered by the sun.

In addition, it is designed for individual ownership.

### **This means:**

- Fishermen and farmers own and operate their own unit.
- No dependency on third-party services or shared infrastructure.
- Maintenance is in the hands of the owner, encouraging care, responsibility and long-term use.



Cold storage is one of the most effective ways to reduce post-harvest losses. Yet, access remains limited in rural areas.

### **With solar powered freezers, we can:**

- Extend shelf life of fish and produce.
- Reduce spoilage and waste.
- Avoid distress sales and secure income.
- Improve food security for local communities.

