

PICS: Hermetic Bags for Safe Storage of grain

Low cost storage technologies for grain

Hermetic bags are like super-sealed containers that stop air and moisture from reaching the grains inside. This way, farmers can store their grains for up to two years without them getting bad. This is good for farmers because it means they always have enough food and can sell their grains for better prices.



PICS GLOBAL
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✓ This technology is **TAAT1 validated**.

9-9



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

Project adoption

The technology has been integrated in the **PADCY-PTA project** : in Democratic Republic of Congo

Inclusion assessment **4**

Climate impact **5**

Problem

- **Post-harvest losses:** Farmers in Sub-Saharan Africa lose over 25% of beans due to inadequate storage methods.
- **Pest infestations:** Weevils, moths, and mites damage stored beans, forcing farmers to sell at low prices immediately after harvest to minimize losses.
- **Fungal contamination:** Traditional storage can lead to fungal growth, such as aflatoxin, contaminating beans and reducing their quality.
- **Food security issues:** Ineffective storage hinders farmers' ability to keep enough beans for consumption between harvests, threatening food security and livelihoods.

Solution

- **Airtight sealing:** The multi-layer design blocks air and moisture, preventing pest infestations without chemicals.
- **Moisture control:** Hermetic bags maintain stable moisture levels, inhibiting fungal growth like aflatoxin.
- **Long-term preservation:** They preserve beans for up to two years, maintaining quality and cooking time.
- **High durability:** Made from strong, reusable materials, hermetic bags ensure reliable grain storage.

50 or 100 kg

Bag capacity

2 year

Life span



Trademark

Technology from

ProPAS

Commodities

Common bean, Rice, Wheat, Maize, Sorghum/Millet, Soybean

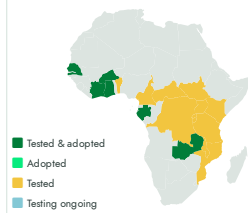
Sustainable Development Goals



Categories

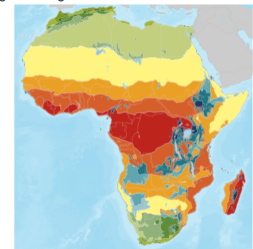
Postharvest, Equipment, Post-harvest handling

Tested/adopted in



Where it can be used

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



Target groups

Farmers



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Last updated on 22 May 2026, printed on 22 May 2026

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