

CRAM varieties: High Yielding Climate Resilient Upland Rice Varieties for Africa

Climate resilient CRAM varieties for enhanced rice productivity for African farmers

CRAM (Climate Resilient Upland Rice Varieties for Africa) are climate-resilient rice varieties developed by AfricaRice and CNRA for smallholders farming in rainfed upland environments. With a 101–104-day maturity cycle, drought resilience, and yield potential of up to 5.0 t/ha, they help vulnerable farmers reduce production risks and secure food and income earlier.



AfricaRice

Africa Rice Center
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Commodities

Rice

Sustainable Development Goals



Categories

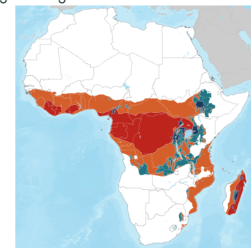
Production, Improved varieties, Disease resistance, Insect resistance

Tested/adopted in



Where it can be used

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



Target groups

Breeders, Farmers, Seed companies, Researcher center, Cooperatives and Agribusinesses

This technology is **pre-validated**.

9/8



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

Inclusion assessment



Climate impact



Problem

- **Smallholder vulnerability:** Drought, rainfall variability, and disease threaten household food security and farm incomes.
- **Short production seasons:** Unpredictable rainfall creates a need for early-maturing varieties suited to rainfed conditions.
- **Harvest and labour constraints:** Lodging and shattering increase crop losses and harvesting burdens.

Solution

- **Resilient livelihoods:** High yields, drought tolerance, and disease resistance help smallholders manage climate and production risks.
- **Earlier food and income: 101–104-day maturity** enables earlier harvests and can shorten the lean season.
- **Accessible crop protection:** Genetic resistance reduces reliance on costly chemical treatments.

Key points to design your program

CRAM gives development partners a practical way to strengthen **smallholder food security, livelihoods and climate resilience** in rainfed rice areas.

- **Target:** Climate-vulnerable smallholder rice farmers, especially women and vulnerable groups.
- **Invest in:** Quality seed, demonstrations, training and extension support.
- **Partner:** Research institutions, NGOs, farmer organisations and private seed businesses.
- **Measure:** Adoption, yield, income, food security and climate resilience.
- **Scale:** Strengthen local seed systems and private-sector distribution for sustainability beyond funding.

1012 USD

Cost USD per hectare

1320 USD

Revenue USD per hectare

308 USD

Net income USD per hectare

30 %

ROI per hectare

1.78 USD per kg

Certified Seed Purchase

3,220.00 USD per ha

Official Variety Certification & Inspection

3.57 USD per kg

Foundation Seed Procurement

4,000 kg per ha

Expected Seed Yield



Open source / open access



CRAM varieties

<https://taat.africa/reh>

Last updated on Sep 9, 2026 printed on Sep 9, 2026

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