

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
Negussie Zenna

Commodities

Rice

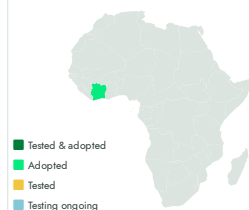
Sustainable Development Goals



Categories

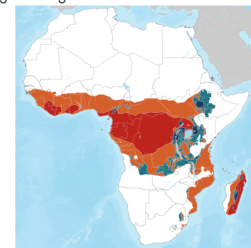
Production, Improved varieties, Disease resistance, Insect resistance

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

- Climate vulnerability: Drought and rainfall variability reduce smallholder production.
- Disease losses: Major diseases reduce harvests and increase farmer costs.
- Short growing seasons: Long-cycle varieties expose farmers to rainfall risks.
- Harvest and labour burden: Lodging and shattering increase losses and labour needs.
- Limited rice quality: Poor grain quality reduces food and market opportunities.

Solution

- Resilient production: Drought tolerance and disease resistance stabilise yields.
- Lower input needs: Disease resistance reduces dependence on chemical treatments.
- Earlier harvests: Short maturity helps farmers manage rainfall risks.
- Lower losses and labour: Better harvest characteristics reduce losses and labour requirements.
- Improved livelihoods: Higher production strengthens food availability and income opportunities.

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>

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