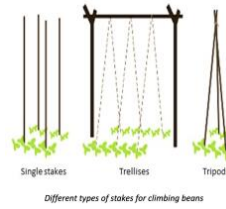


Low-Cost Staking for Climbing Beans

Empowering Beans, Sustaining Growth!

The Low-Cost Staking practice provides affordable solutions for supporting climbing bean cultivation, aiming to reduce reliance on wooden stakes and mitigate deforestation caused by their overharvesting.



This technology is **TAAT1 validated**.

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

Gender assessment **4**

Climate impact **7**

Problem

- Farmers face expense issues with plant support, leading to yield losses.
- Shortage of wooden stakes affects plant density and yield.
- Overharvesting of stakes harms forests and afforestation efforts.
- Knowledge of optimal density and stake length varies with method.

Solution

- Offers farmer-acceptable, lower-cost staking innovations.
- Utilizes tripod arrangements and string trellises to reduce wooden stakes.
- Recommends the use of agroforestry species and tall grasses for stakes.
- Improved yield and climbing bean production.

Key points to design your project

- The technology reduces bean cultivation costs, aiding poverty alleviation among small-scale farmers.
- It boosts food security with improved yields and creates job opportunities in rural areas.
- By promoting eco-friendly practices, it reduces reliance on deforestation for stakes and supports sustainability.
- Steps to integrate the technology include raising awareness, disseminating information, ensuring access to loans, and collaborating with agricultural institutions.
- Consider integrating complementary technologies for enhanced efficiency.

Cost: **\$\$**

300 %

Increase in yields compared to bush beans

20,000—50,000

stakes per hectare

Staking density for highest yields

2 meters

Height of stakes for highest yields

~200,000

plants
Plant population per hectare

IP

Open source / open access

Alliance

The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT)
Justin Mabeya Machini

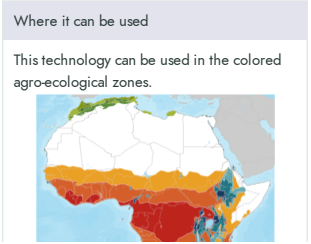
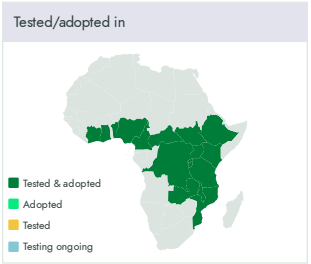
Technology from
ProPAS

Commodities
Common bean

Sustainable Development Goals

Categories
Production, Practices, Yield improvement, Production system

Best used with
• [Climbing Bean with High Yield and N Fixation >](#)



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<https://e-catalogs.taatafrica.org/gov/technologies/low-cost-staking-for-climbing-beans>

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