

Biochar: Biomass Charcoal for Soil improvement

Biochar, a powerfully circular way to fight climate change


Biochar technology is a form of charcoal. It is made through a process called pyrolysis which involves burning of biomass in an oven with little or no oxygen. What you get out of it is solid material which then is added into soil.




Sasakawa Africa Association
Moshood Sulaiman

 This technology is **pre-validated**.

 **8·7**

 Scaling readiness: idea maturity 8/9; level of use 7/9

Gender assessment  **3**

Climate impact  **7**

Problem

- Poor soil fertility and health
- High greenhouse gas emissions from agricultural practices
- Soil erosion and nutrient leaching
- Limited contributions to climate change mitigation efforts

Solution

- Biochar reduces the need for farmers to burn residues, while also creating a valuable soil amendment that can improve soil,
- Reduce water usage, lower methane emissions, and
- Save on input costs for expensive and polluting chemical fertilizers.

Key points to design your project

The biochar technology can significantly enhance the livelihoods of smallholder farmers, especially women, by boosting farm productivity, and supporting climate resilience.

To integrate this technology:

- Understand the link between feedstock types, production methods, and biochar properties.
- Obtain and set up pyrolysis or gasification machinery, and train staff.
- Market biochar to farmers and cooperatives, emphasizing soil and carbon benefits.
- Allocate resources for comprehensive training and support.

305 USD

For 500 Kg capacity

5—10 Tones

Recommended Biochar quantity for 1 hectare



Open source / open access

Commodities

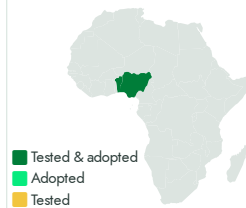
Sustainable Development Goals



Categories

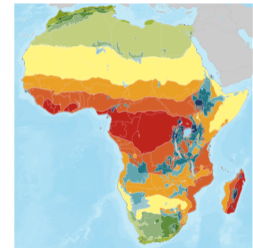
Production, Pre-production, Inputs, Fertilizer, Combustible

Tested/adopted in



Where it can be used

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



Target groups

Farmers



Biochar

<https://e-catalogs.taatafrica.org/gov/technologies/biochar-biomass-charcoal-for-soil-improvement>

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