

A person's hands are shown holding a clear plastic bucket filled with dark, granular biochar. The person is wearing a blue shirt. The background is a blurred outdoor setting with green grass and trees. A semi-transparent grey box is overlaid on the image, containing the title and date.

Can biochar be the black gold of Namibia?

Windhoek, May 2023

Bush Encroachment in Namibia – 45 million hectares of savana affected





**Approach: restoration through
value addition**

The image shows a close-up of a grey, semi-transparent tray filled with dark, irregularly shaped biochar granules. In the background, several large, woven bags are visible, some of which are partially filled with the same dark granules. The lighting is bright, highlighting the texture of the granules and the woven fabric of the bags.

What is Biochar?

Background - Definition – Use – Production - Relevance

Terra Preta

- generally poor soils in the Amazon Basin
- pre-Columbian societies enhanced the soil with biochar
- precondition for sedentarism and population growth
- evidence of ancient biochar use also in Africa



THE BRAZILIAN REPORT (2017)



GLASER et al. (2001): The 'Terra Preta' phenomenon: a model for sustainable agriculture in the humid tropics.

Background - Definition – Use – Production - Relevance

“Biochar is a carbonous and **porous** material obtained by thermochemical conversion (pyrolysis, gasification) of biomass waste.”

DEMIRBAS et al. (2004): Effects of Temperature and Particle Size on Bio-Char Yield From Pyrolysis of Agricultural Residues

Biochar is...

1. adsorptive

- gases, liquids, solids adhere (temporarily) to its surface

2. absorptive

- liquids get absorbed like a sponge





Why is Biochar interesting for Namibia?