



**cheetah.org**

CCF is an international non-profit incorporated association dedicated to the long-term survival of the cheetah and its ecosystems.

**RESEARCH**

**CONSERVATION**

**EDUCATION**



Situated at CCF's Namibian Field Research and Education Centre, the Biomass Technology Demonstration Centre (BTDC) focuses on creating sustainable clean energy from thorn bush. This initiative promotes biomass industry growth while restoring habitats for wildlife and livestock. The region's ample thorn bush, up to seven tons per acre, showcases biomass potential and sustainable practices.

The BTDC aims to attract ventures, create jobs, offer electricity to underserved areas, mitigate conflicts, and enhance farmland. Combining conservation, economy, job creation, and sustainable energy, the BTDC contributes to a prosperous and ecologically balanced future.

## Biomass Technology Demonstration Centre

### RESEARCH & EVALUATION

The BTDC's research covers a broad spectrum of biomass technologies, focusing on those that can foster sustained economic ventures. Initial technologies encompass the production of briquette logs, charcoal hex logs, lump charcoal, and pyrolysis-based electrical generation. The next phase will introduce promising advancements like wood pellet production, alternative chipping power trains, and Stirling engines.

CCF's ecologists conduct ongoing monitoring of harvested areas to gauge habitat recovery progress. The BTDC team assesses novel machinery and explores ways to scale harvesting methods and transportation effectively. Successful commercial biomass operations require consistent deliveries of raw wood, aligned with equipment capabilities and seasonal demands.

The BTDC will also evaluate other renewable energy options, including photovoltaic (solar) systems, alternative energy storage solutions, and micro-grid setups. Given the expanding biomass industry in central Namibia, lack of electricity access could hinder rural development. Thus, the BTDC will investigate optimal approaches for implementing small grids in these areas, potentially integrating biomass-based and solar electricity to address local energy needs.

### BIOMASS AS A VIABLE BUSINESS

The BTDC collaborates with academics, researchers, and engineers to implement, assess, and validate each technology, tailoring them to the available biomass in the region. Customizations are made as needed to equipment and processes. Ongoing evaluations are conducted to assess the economic viability of specific industries, ensuring that production costs remain sufficiently low for profitable sales of biomass products.

In the past decade, CCF has been at the forefront of thorn bush harvest methods. CCF's bush project's BUSHBLOK® is certified by the Forest Stewardship Council (FSC®) (FSC-C004580, guaranteeing responsible land management and holistic benefits encompassing environmental, social, and economic aspects. This certification signifies the highest forestry management standards.

The BTDC, equipped with diverse operating equipment, optimized operational methods, and a thorough grasp of cost economics and wood harvesting techniques, serves as the perfect platform for showcasing biomass technologies. This center draws interest from entrepreneurs, established companies, international grant organizations, NGOs, and investors worldwide. By linking investment capital with businesses and fostering knowledge exchange, the BTDC aims to stimulate a burgeoning biomass industry in central Namibia.



Given the vast expanse of invasive bush covering millions of acres, biomass is poised to emerge as a robust regional economic force, generating essential employment opportunities, fresh tax revenue streams, and enhanced livelihoods.

### A TEACHING FACILITY

The BTDC also acts as an educational and training center. It trains workers in equipment use, safety, and employment regulations, while field training covers topics like harvest planning and FSC®-compliant methods. Local businesses and entrepreneurs receive education on biomass economics, distribution, and funding access. The BTDC is open to academic institutions for student education and research.

### OUTLOOK FOR THE FUTURE OF BIOMASS

The biomass potential in central Namibia is enormous, with abundant thorn bush resources in an area with unemployment and limited electricity. CCF's extensive research supports the sustainable and responsible harvesting of this resource.

International donors and investors are brought together by CCF to support the BTDC. Through ongoing research, technology demonstrations, and training, CCF aims to stimulate a new economic wave centered around biomass in Namibia.

LEARN MORE



[bushblok.com](http://bushblok.com)



*Before harvest: CCF's habitat restoration efforts focus on clearing thickened thorn bush from cheetah habitat. While thorn bush is a native plant, due to the decline of large grazers, the plants become overgrown, clogging the landscape.*



*After harvest: The cheetah needs open landscape like this to successfully hunt. Research is being conducted on the effects thorn bush removal has on the soil composition and wildlife density.*