

Namibian Wood Charcoal

A triple win for the Namibian environment,
the country's economy and international consumers

ENVIRONMENTALLY BENEFICIAL CHARCOAL PRODUCTION

Namibia used to be a land of open savannahs. Now, more than half of the country is covered by thorny and impenetrable bush. Bushes and shrubs spread excessively, while other plant species, especially palatable grass, drastically decline. As a result, less rain seeps into the groundwater, biodiversity is lost and the productivity of farmland is reduced.

Today, more than 30 million hectares of Namibian rangeland are affected by high densities of bush. The causes of bush encroachment are manifold and include unsuitable rangeland management, the increase of CO₂ in the atmosphere and changes in precipitation patterns due to climate change.

Bush encroachment hampers agricultural productivity and threatens the livelihoods of many Namibians. While it constitutes an immense challenge, bush encroachment also provides significant opportunities. Bush control through selective harvesting can restore agricultural productivity of the land, provide income through the utilisation of the biomass and ultimately strengthen the drought resilience of farmers.

The production of charcoal provides an additional income source for Namibian farmers and enterprises and at the same time helps rehabilitate degraded savannah ecosystems. This makes Namibian charcoal a unique and sustainable alternative to charcoal from regions prone to unsustainable forest management and deforestation.

Production of lump charcoal is Namibia's oldest biomass value chain and currently the most important contributor to the country's wider effort of bush control. It currently generates a demand for biomass input of approximately 600,000 tonnes per annum. Since charcoal production permits are typically only issued for bush encroached areas, this biomass demand translates into bush harvesting on up to 60,000 hectares of land each year¹.

Bush harvesting for charcoal production is regulated by Namibian forestry and environmental policies. In cooperation with the Forest Stewardship Council (FSC)[®], a national sustainability standard is being developed.



THE PRODUCT

Wood for charcoal is harvested mainly from commercial livestock farms in central and northern Namibia (around Outjo, Grootfontein, Otjiwarongo and Okahandja). Encroacher species commonly used include blackthorn Acacia (*Acacia mellifera* / *Senegalia mellifera*), red-rind Acacia (*Acacia reficiens* / *Vachellia reficiens*), and other Acacia species. Approximately five tonnes of biomass are needed to produce one tonne of charcoal, using conventional metal kilns.

Namibian charcoal is of high quality:

- Most encroacher species have a high wood particle density;
- Weather conditions in Namibia, usually high temperature and very low relative air humidity, are favourable for wood drying;
- The wood charcoal from commonly used encroacher species lights easily, reaches cooking temperature rapidly and is known to impart a woody flavour to food.

Namibian barbecue charcoal enters the consumer market under more than 15 different brand names. Member companies of the national sector association NCA currently are: Jumbo Charcoal, Etosha Charcoal, Savannah Charcoal, Alfacharcoal, Carbo Charcoal, Corridor Logistics, Invader Bush, Kilo 40, King Charcoal, Makarra Bushproducts, Namibian Retort Charcoal, W. Diekmann, and WM Trading Enterprises.



THE CHARCOAL INDUSTRY IN NAMIBIA

The charcoal value chain in Namibia is well organised and the bush harvesting process is firmly regulated.³ The industry has grown to accommodate a network of stakeholders, including:

Producers

There are currently around 650 charcoal producers in the country. Most producers are commercial or emerging farmers, who organise charcoal production on their land. They employ or subcontract charcoal workers (harvesters and burners) and pay them per tonne of charcoal produced. The charcoal is then sold to a processor/trader. A growing number of producers have obtained Forest Standard Certification® (FSC®), committing to environmentally appropriate and socially beneficial production in line with the internationally recognised standard.

The industry has an increasingly diverse representation among producers, with roughly half of the producers being emerging farmers from economically disadvantaged groups, who are diversifying their income sources while fighting bush encroachment¹.

Harvesters and Burners

The actual charcoal burning currently supports approximately 6000 workers, making the charcoal sector one of the largest employment generating sub-sectors of the Namibian economy. Most workers are from mobile and migrant populations, primarily from the Kavango and North-Central regions.

Processors and Traders

Currently, there are 13 charcoal processors in Namibia who purchase charcoal in bulk, process it and distribute it to different clients and markets. They refine the product according to the technical parameters agreed with their international clients such as carbon fixation, ash content, volatile matter and moisture content.

Agents and Distributors

Importers in buyer countries play an important role in marketing Namibian charcoal. Most importers warehouse Namibian charcoal and distribute it to retail outlets.



Illustration of Namibian exports of wood charcoal in 2016; the size of the flag icons is relative to export volumes.

Source: Chatham House (2018), 'resourcetrade.earth', <http://resourcetrade.earth/>

Economic Potential

Namibia's charcoal exports have grown steadily in recent years. With an export volume of 160,000 tonnes in 2016, the country currently ranks among the top ten charcoal exporting countries worldwide. The core markets are South Africa, United Kingdom, Germany, France and Greece. Increasingly Namibian charcoal enters new markets, such as countries of the Middle East and Australia.

Charcoal is a strategic industry for Namibia that has, in agreement with the Fifth National Development Plan (NDP5), been selected by the government for a specific focus on its economic development. The industry has significant potential to promote capital formation, diversification

of income sources as well as rural livelihood strategies and resilience, especially for emerging farmers, as the barriers to entry are relatively low. There is also scope for the creation of small and medium enterprises (SMEs) run by previously disadvantaged groups specialising in delivering state-of-the-art bush harvesting and charcoal-processing services.

Considering current market demand as well as past demand growth and the industry's capacity to respond to it, it is estimated that the production of wood charcoal for export could be increased to 200,000 tonnes by 2020, i.e. by 25% compared to 2016¹.





THE NAMIBIA CHARCOAL ASSOCIATION

The Namibia Charcoal Association (NCA) is a non-profit voluntary membership association.

The Association:

- supports the initiatives of producers, labourers, processors, and all other stakeholders and creates an environment conducive to good relationship amongst them;
- conveys the coordinated views of the industry and co-operates with the authorities to negotiate solutions and to advocate for necessary legislation that benefits the industry;
- engages in creating uniform standards to the benefit of all stakeholders and customers;
- interacts with all national and international stakeholders to the benefit of the industry;
- develops and facilitates trainings for charcoal workers, producers and processors.

The Namibia Charcoal Association hosts an annual Charcoal Conference and Expo with a broad range of participants from Namibia and abroad. NCA is closely affiliated with the Namibia Agricultural Union (NAU) and coordinates its efforts with other relevant industry bodies, such as the Namibia Biomass Industry Group (N-BiG).

Contact details of the association for membership requests and information on activities are provided below.



Key References / Further Reading

- 1) Ministry of Industrialisation, Trade and SME Development (2016): Growth Strategy for the Namibian Wood Charcoal Industry and Associated Value Chains.
- 2) ECO Consult (2016): Towards a cleaner charcoal production process.
- 3) Ministry of Agriculture, Water and Forestry and Ministry of Environment and Tourism (2017): Forestry and Environmental Authorisations Process for Bush Harvesting Projects.
- 4) DECOSA (2015): Adding Value to Namibian Encroacher Bush.

Image Sources

Pages 1, 2, 4 (top): Johannes Laufs, GIZ Bush Control and Biomass Utilisation Project
 Page 3: Shawn van Eeden, Creative Lab
 Page 4 (bottom): Andreas Lange, GIZ ProBATS

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