

HIGH QUALITY BAMBOO BRIQUETTES VALUE CHAIN IMPLEMENTED BY DIVINE BAMBOO IN UGANDA

Established in Kampala, Uganda, [the Divine Bamboo company](#) produces high quality, clean and affordable bamboo briquettes, generating an innovative national valued chain.

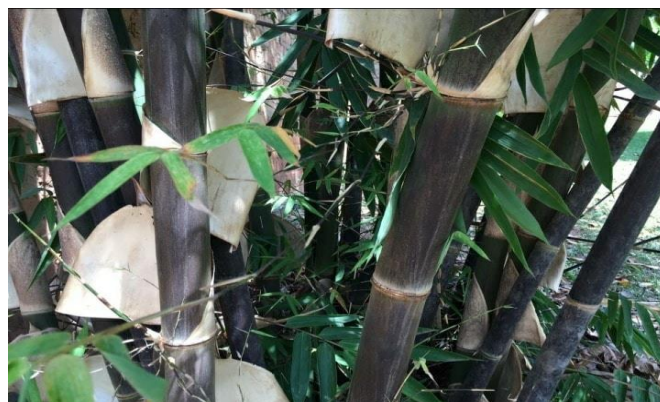
Founded in 2016 by Divine Nabaweesi, current CEO, and [Maria Nampijja](#), *Divine Bamboo* is a forestry and biomass energy enterprise whose mission is to stop deforestation through a clean cooking fuel in the form of bamboo briquettes produced from locally available bamboo species to replace traditional charcoal. The company provides bamboo plantation establishment services and training activities in production of bamboo charcoal briquettes for both individuals and institutions.

In 2020, *Divine Bamboo* won the prestigious [Energy Access Booster Award](#) which recognizes energy access entrepreneurs operating in Africa or Asia with a focus on cooking and waste-to-energy. The Award is organized by the [Sustainable Energy for All Organization SEforALL](#) with the support of TOTAL, ENEA Consulting and Acumen. In 2019 *Divine Bamboo* was also among the five winners at the [Start Up Energy Transition \(SET\) Award 2019](#) celebrated in Berlin (Germany). Implemented by the German Energy Agency in cooperation with the [World Energy Council](#), the Award has received applications of more than 450 companies from 80 countries.

The *Divine Bamboo* Company has expanded quickly since its launch in 2016. The company has become the largest producer of bamboo seedlings in Uganda with a capacity of 400,000 seedlings annually. It has planted approximately 25 hectares of bamboo while working with local farmers and individual tree growers to establish a bamboo briquette value chain that contributes to local economic development. This woman-led company has employed 16 full time professionals and workers and has generated 20 temporary jobs.

Their success is due to a number of interrelated factors:

- *High quality of the product.* The technology improved by *Divine Bamboo* for the briquettes production has been tested by the regional *Centre for Research in Energy Efficiency and Conservation*, which proved their compliance to standards of efficiency in terms of heating values, fixed carbon and ash content. The result is a highly efficient product having technically competitive heating properties and that in addition produce less soot and smoke compared to charcoal and firewood, alleviating negative health effects on people.
- *Economic impact for households.* Bamboo briquettes have the potential to reduce household fuel expenditure by 50 percent compared to traditional charcoal. In Kampala the Divine Bamboo Briquettes are sold for USD 0.32 per kilogram versus USD 0.64 for current charcoal. This, coupled with the fact that bamboo briquettes cook for longer, creates a significant economic saving for families. In fact, Bamboo's briquettes



cook for longer at 70 minutes burning time compared with 45 minutes of traditional charcoal and can be used in existing cookstoves.

- *Impact for local economy.* The company has created a production chain by working with 350 small-scale farmers for the establishment of bamboo plantations and production of bamboo briquettes. These farmers have been trained to grow bamboo as an agro-forestry crop alongside their already existing crops and received freely bamboo seedlings from the company to start their new plantations. By securing the purchase and reducing the risks of their investments, they improved and diversified income earning approximately \$1000 per acre per annum after the first 4 years. Trained in the entire bamboo briquette energy value chain, small farmers also progressively become consumers of bamboo briquettes, expanding the use of this cheaper and cleaner cooking solution, as well as the environmental benefits
- *Environmental impact.* The company contributes to reduce the ongoing deforestation in the country, generated by the use of wood to meet energy needs. Bamboo production contributes to restore lands because it has an extensive root system that binds earth and restores soil health. Bamboo grows fast, it requires minimal maintenance, no fertilizers or pesticides and can be integrated in both agroforestry and mixed farming systems. Bamboo briquettes production reduces the carbon foot print, contributing to mitigate the climate change.
- *Impact for national energy security.* Approximately 42 million people in Uganda currently have no access to clean fuels or technologies, according to the [Tracking SDG7: The Energy Progress Report 2019](#). Only 15% of the population currently has access to electricity and a high percentage still fully depend on fuel wood in the form of charcoal and firewood for their daily cooking needs. Bamboo briquettes have the potential to impact millions of lives by providing a clean cooking fuel and to prevent deforestation through establishment of sustainable bamboo plantations. Bamboo is a fast-growing plant and rapidly self regenerates ensuring energy security for the rural communities. From this point of view, the successful practice of *Divine Bamboo* has the potential to be part of a national energy transition based on natural and renewable resources.

[The Republic of Uganda joined the INBAR organization in 2002](#). In 2020 the Ministry of Water and Environment in collaboration with INBAR published the [2019-2029 Uganda national Bamboo strategy and action plan](#) that focus on the management of bamboo resources for economic, social and environmental benefits for all the people of the country. In 2020, the INBAR website [published an article which enhances the great contribution of the Divine Bamboo company](#) to create a new national green energy solution using bamboo.

For the future, the Divine Bamboo company is planning to acquire new production equipment and to hire additional technical staff to reach commercial scale for producing its briquettes. Their goal is to increase the holding capacity of the nursery to one million seedlings a year, to increase production capacity of briquettes to 20 tonnes a month and to train 1000 farmers. The Company is also going to continue to realize campaigns about the benefits of bamboo charcoal and briquettes, as a new solution for the country's energy future, giving farmers new opportunities to increase their incomes, to create jobs and to improve the environment where they live.

To know more

[Divine Bamboo website](#)



[Divine Bamboo in Facebook](#)

[Article in globalinnovationexchange](#)

[Article in inbar.int website](#)

[INBAR Dutch-Sino-East Africa Bamboo Development Programme in Uganda](#)

[Article in startup-energytransition.com](#)

[Article in seforall.org](#)

[Article in energyaccessbooster.com](#)

[Article *Fighting poverty with bamboo* in ifad.org website](#)

[Article in INBAR website](#)

[Article *The potential of Bamboo charcoal* in INBAR website](#)

[Use of bamboo for energy production in globalbioenergy.org](#)

[World Energy Council website](#)

[Sustainable Energy for All Organization *SEforALL*](#)

