

BAMBOO BIKES MADE IN GHANA SPREADING THROUGH AFRICA AND INTERNATIONALLY AS INNOVATIVE BUSINESS SYSTEM

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The Bamboo bicycle innovation, born to give an answer to the problems of transport for rural people in Ghana, has become increasingly popular within the modern fashion of sustainable mobility and giving an effective contribution to the MDGs.

In 2023, Bamboo Bike Initiative was once again highlighted for its earlier recognition as one of the winning projects of the UN Global Climate Action Awards. The Award highlighted that “The Ghana Bamboo Bikes Initiative addresses climate change, poverty, rural-urban migration and youth unemployment by creating jobs for young people, especially women, through the building of high-quality bamboo bicycles. Compared to the production of traditional metal bicycles, bamboo bikes require less electricity and no hazardous chemicals. Not only are the bikes light and stable, they can handle rough terrain and can carry large farm loads and passengers. The initiative has support from the GEF Small Grants Programme (GEF SGP), implemented by the United Nations Development Programme”. In January 2023, UNDP Ghana emphasized Global Bamboo Bicycles as an example of youth-led innovation and sustainable entrepreneurship. The initiative’s dates back to 2013, when the Ghana Bamboo Bikes Initiative was awarded by UN Climate Change as a Lighthouse Activity for addressing climate change, poverty, rural-to-urban migration and youth unemployment.

The company founded in Ghana by Bernice Dapaah as a way to create local jobs and promote low-carbon transport, after having been inspired by the International Network of Bamboo and Rattan initiative, explores sustainable, green ways to help producers out of poverty. By using an abundant and green crop based in Ghana, the company champions sustainable cycling as a way of life, promoting sustainable development, boosting trade, creating employment opportunities for women by addressing a number of United Nations Millennium Sustainable Development Goals in the process.

Among the many international recognitions, the Ghana Bamboo bikes is presented by the World Intellectual Property Organization WIPO as a company capable of transforming a local, rapidly renewable resource as Bamboo into a commercial product:

- It grows some of the bamboo it uses directly;
- It provides technical training to its workers;
- It creates local employment;
- It supports Ghana’s economy;
- It promotes sustainable transport through its brand and access to international markets.

The Ghana Bamboo Bike initiative contributes to ride Ghana towards an increased cultivation and use of bamboo as an alternative to wood that helps preserve and rehabilitate Ghana’s dwindling forests, as



highlighted into the original first patent approved. Bamboo is one of the fastest growing plants on earth, absorbing more carbon than any other plant and improve climate mitigation in areas where it is harvested. In addition, the [construction of bamboo bicycles](#) is considerably less energy-intensive than the production of steel bicycles, as manufacturing a steel bicycle frame emits approximately 5 kg of CO₂.

Young people from rural areas learn the entire bamboo bicycle manufacturing process, from harvesting the bamboo to final assembly. [In a recent interview the founder of the initiative, Bernice Dapaah, illustrated the production process](#) and declares main results of the initiative:

- Young people in rural areas are trained to build affordable bamboo bicycles, creating jobs and promoting sustainable mobility. Production is expanding rapidly, mainly through social enterprises in Africa.
- The project has sold more than 3.000 bicycles until today. Trained in Adum (Kumasi) more than 70 young people, both males and females, through bamboo bike manufacturing and cultivation, have created 25 full-time jobs. They have planted 10 bamboo plants for every plant harvested; recovered and reused wheels, brakes, handlebars, and components from used bicycles.

The business also rents bamboo bicycles in urban and resort areas to reduce transport sector emissions and distributes them for free to remote areas of Ghana, supporting school children with limited mobility. For every bike sold, one is given to a schoolchild to help that child save time getting to school. The Ghana Bamboo Bikes Initiative also focuses on empowering women by providing training and job opportunities. Bernice's team, mostly women, gains skills in bamboo cultivation, bicycle assembly, and business management.

In 2024 the [Borgen Magazine](#) makes clear how the Ghana Bamboo Bikes can give a significant contribution to the poverty eradication in Ghana's rural communities reporting the training offered to bamboo growers, gatherers and assemblers, to set up their own small-scale production base in any part of the country and the creation of 30 full-time jobs at local level (bike shops and other bike related businesses).

Bamboo bikes gained the attention of the United Nations and won many international prizes as inclusive business model that deliver both commercial success and help improve social, economic or environmental conditions. Ghana Bamboo Bikes was selected as [a winner of the 2010 UNEP Seed Initiative Award](#). In 2013, the bicycle was presented in the [Warsaw Climate Change Conference](#) with the participation of the UN Secretary General Ban Ki Moon. The Bamboo Bike Initiative in Ghana, supported by GEF Small Grants Programme (GEF SGP), implemented by UNDP, continues to build capacity and create employment opportunities for skilled and unskilled youth and women, in many African countries, supporting the local and international bamboo bike industry.

The Ghana Bamboo Bikes Initiative has established several international partnerships for technology transfer, artisan training and commercialisation, including collaborations with organisations in Europe, the United States and other African countries (Kenya, Zambia), contributing to the diffusion of bamboo bicycle manufacturing expertise. Ghana Bamboo Bikes has developed an international market, with bicycles distributed in several countries including Germany, the Netherlands, the United Kingdom, Belgium, Japan, United States and Italy.



Other collaborations to reach the international standards include the participation in 2020 of the Ghana Bamboo Bikes Initiative to the GCIC Peer Exchange Program, with international experts supporting the Company to reach ISO 4210 standards, essential for exporting to European and international markets.

In many countries a number of companies are seizing the opportunity to make use of this abundant, natural resource to create a boom in cycling. The bamboo bicycle is today increasing in popularity across the world because in addition to functionality, sustainability, social employment opportunities and economic venues, the customized furniture's answers the fashion actual trend of the sustainable transport for its unique design that can to be adapted to different purposes.

Multilateral perspectives are provided by the International Network for Bamboo and Rattan (INBAR). Business enterprise participants included Boomers Bamboo Bike, Ghana Bamboo Bike, Global Bamboo, Kwamoka Farms, and Ankobra offering insights across manufacturing, processing, and value-addition activities.

Sources show that Ghana Bamboo Bikes contributes to sustainable development through four main effects: green job creation, training and employment for women, low-emission mobility, and access to education in rural areas. The model also integrates the circular economy and reforestation. It demonstrates that the project is not only environmentally focused but has also developed a distinctive and commercially scalable business model that effectively contributes to SDG 11, Sustainable Cities and Communities, and SDG 13, Climate Action.

The Bamboo bicycle is an example of innovation, born to give an answer to the problems of transport of rural people and becoming increasingly popular within the modern fashion of sustainable mobility. Riding a bamboo bicycle has become greener everywhere, with a production process that uses less electricity than metal bicycles and requires no hazardous chemicals. People who use it as an ordinary mean of transport can be satisfied for having started the trend and have given a contribution to the sustainability of our world, through benefits of bamboo cultivation against soil erosion and environmental degradation.

To know more

[2023 UNFCCC Global Climate Action Awards](#)

[2023 Article UNDP Ghana](#)

[Ghana bamboo bikes in facebook](#)

[Ghana Bamboo Bike in WIPO Green website](#)

[WIPO Bamboo Bikes Video](#)

[WIPO Bamboo Bikes for sustainable development Video](#)

[Bernice Dapaah in Wikipedia](#)

[Article in World Economic Forum](#)

[Article in United Nations University website](#)

[Video in Facebook.com](#)

[Bamboo bicycle club website](#)



[Article in cnn.com](#)

[Article in shbarcelona.com](#)

[Ghana Climate Innovation Centre](#)

[Bamboo Bike in iceberg.plastic.design](#)

[Article in The Borgen Magazine](#)

[Study Bamboo Ghana in sciencedirect.com](#)

[Article in ghananewsguide.com](#)

[Bamboo Bike in globalfuturecities.org](#)

