



TOSHIBA CARBON ZERO SCHEME

UN Sustainable Development Goals

- > The UN has 17 measurable Sustainable Development Goals (SDGs), several of which are supported by the Toshiba CarbonZero scheme. This report focuses on **SDG 6: Water and Sanitation**, explaining the impact of Toshiba's offsetting programme and its link to this goal.
- > SDG 6 is aiming to ensure universal access to safe drinking water and sanitation and hygiene facilities, and to ensure the quality and sustainability of these facilities.
- > The Toshiba Carbon Zero Scheme supports the ongoing activities to promote and disseminate improved cook stoves in Kenya. These stoves replace the traditional 3-stone fires, which require vast amounts of firewood and emit large amounts of greenhouse gases. Reducing the dependence of communities on firewood removes a major cause of deforestation, with enhanced tree growth improving the water retention of soils, improving communities' access to groundwater.

FACTS

- > The Millennium Development Goals (2000-2015) contributed to vast improvements in access to improved water sources, with 91% of people having access by 2015 compared to 82% in 2000. Global access to improved sanitation facilities also increased from 59% to 68% over the same period.
- > However, 663 million people today live without access to an improved water source such as a borehole, most whom live in sub-Saharan Africa. Furthermore, close to 2 billion people drink water daily that may be contaminated by faecal matter, because not all improved water sources can be considered safe.
- > 2.4 billion people today lack access to improved sanitation facilities, of whom 946 million people have no access to toilet facilities, forcing people to openly defecate, which presents a major challenge to public health.

Kenyan Cook Stove Case Study

75-year-old Patricia Okumu, who received a CarbonZero stove in 2012, lives in Kajulu East in Kisumu County, Kenya. As in much of rural Kenya, chronic water shortages are a fact of life in Kajulu East. Surface water supplies such as pools and streams are often contaminated due to the presence of pit latrines and animal waste, meaning that water needs to be boiled to make it safe to drink. This, in combination with the general high demand for firewood for cooking amongst the growing rural population, has contributed to deforestation in the area. Loss of tree cover has grave impacts in turn on water supplies, with wind erosion and the loss of shade and root systems reducing the water retention of the soils, causing surface water supplies to dry out.

Before CarbonZero stoves were promoted in her community, Patricia would spend the majority of her waking hours walking to collect firewood and water, both of which were becoming increasingly scarce. She recalls: *“Going to the river to fetch water with my old age was very cumbersome, my feet would hurt from the long walk, and my back was very painful, to add to that I had to do other household chores.”*

Receiving the CarbonZero stove freed up hours of Patricia’s time each day, because the stove reduced her household’s firewood consumption to a third of its previous level, vastly reducing the amount of time spent gathering firewood. This additional time allowed Patricia and her husband to work on digging a well in their garden, which they fitted with a

handpump to allow easy access to this precious commodity. She also reports how she has followed the advice of CarbonZero staff to plant trees around her compound, which has beautified the area and helps her crops by improving the soil quality.



Overall, the CarbonZero stove has had a vast impact on improving Patricia’s access to water. Removing the burden of spending hours every day collecting firewood has in turn enabled her to gain access to a safe water supply on her doorstep, and to plant trees which will help preserve groundwater supplies for her and her community. She finished by listing the ways her life has changed: *“Relatives who never used to come to visit because they feared walking for over 7 km in search for water and firewood, now come as often as possible. My granddaughter has improved in her performance at school because the time she wasted going to fetch water is now converted into reading time and also chores are done faster like cooking, washing and doing dishes. Water is life, nothing else can move without it.”*

Toshiba’s contribution to the UN Sustainable Development Goals

This case study shows how the project activities in Kenya contribute to SDG 6 in the following ways:

- With the necessity removed of spending hours every day gathering firewood, people are able to create water sources closer to home, in turn saving them more time for income generation.
- The reduced consumption of firewood reduces the challenge of deforestation, allowing groundwater supplies to recover and become sustainable for the communities which depend on them.
- When children do not have to spend hours each day walking to collect firewood and water, they are able to invest more time into their studies, giving them access on vital information on sanitation to help them stay healthy.

For more information about the Toshiba Carbon Zero Scheme please visit our website:
www.toshibatec.eu/about/sustainability/carbon-zero/

In cooperation with



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