

Williamson Tea

TEA FARMERS SINCE 1869

Towards Net Zero



Forestry at Kapchorua

Agriculture has a unique ability not just to reduce emissions but act as a sink for the emissions of others.





Solar PV at Changoi

Net Zero in Kenya

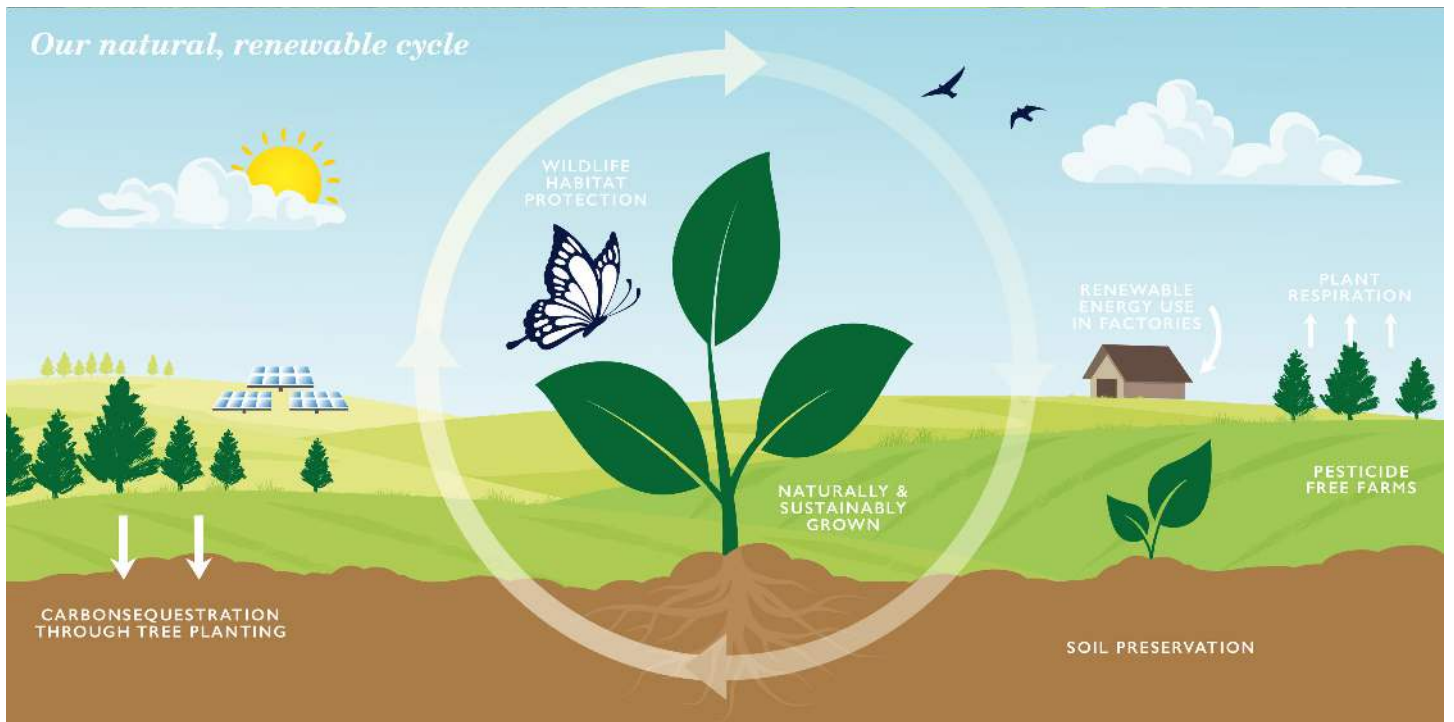
The Kenya Government is a signatory to the Kyoto Accord and Paris Agreement on climate change mitigation.

Kenya has immense green growth opportunities building on a very low carbon footprint of 0.4 metric tons per capita in comparison to nations such as the UK with 4.6 metric tons per capita. (Source The World Bank Data).

Williamson Tea will harness these opportunities in line with the Kenyan Government strategies although the detail for the agricultural sector needs further amplification.

The Kenya Energy Transition & Investment Plan 2023-2050 identifies the main decarbonisation technologies that will anchor an orderly transition, including renewable energy, green hydrogen, e-mobility, energy storage and clean cooking.





The Four Pillar Strategy of Williamson Tea

Agriculture has a unique ability not just to reduce emissions but to act as a sink for the emissions of others but to achieve Net Zero will require a multifaceted approach with four pillars.

Pillar 1; Improving farm resource use efficiency and reducing emissions.

Pillar 2; Improving carbon capture and storage.

Pillar 3; Increasing our use of renewable energy.

Pillar 4: The development of a Carbon Calculator for the Kenyan tea industry.

Within these pillars Williamson Tea focuses on a common-sense approach with prominence given to Productivity, Power and Carbon Sequestration.





Harvester on farm

Productivity

For generations Williamson Tea has implemented productivity gains and minimised inputs.

The process of producing more tea from less land through the continued analysis of new tea bush varieties, improvements in husbandry and targeting the application of fertiliser is continuous and an essential part of achieving Net Zero.

Williamson Tea recognises that fertiliser is one of the largest sources of emissions for agriculture, however its use reflects market conditions and the requirement to produce tea at very low prices for a global population that has risen exponentially from 2 billion to 8 billion in the last one hundred years.

After extensive trials on the use of drones fertilizer is now being applied on all areas of the tea farms to achieve a targeted and efficient application.





Solar PV at Kaimosi

Power

Power sourced from the Kenyan national electricity grid benefits from significant generation from renewable sources in excess of 80%, more than double the UK.

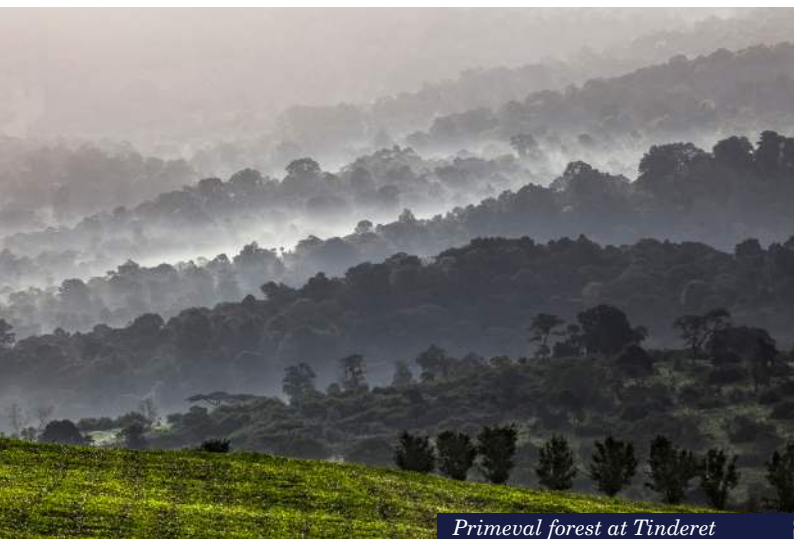
However the national grid can be unreliable and suffer significant voltage fluctuations and for over a decade Williamson Tea has invested in renewable power generation to avoid using diesel standby generators.

The Changoi and Kaimosi tea farms have installed 2.5MW of solar photovoltaic systems with similar investments planned and costed for the Tinderet and Kapchorua tea farms.

The Kaimosi tea farm also has a state-of-the-art Tesla battery system to provide energy storage of renewable power and further reduction in emissions.

Williamson Tea carries out regular energy audits to identify usage and opportunities to systematically reduce consumption in all aspects of the farms.





Primeval forest at Tinderet



Ancient tree at Kapchorua

Sequestration

The maintenance of existing carbon stores is an essential part of carbon management and Williamson Tea preserves 330 hectares of primeval rainforest and indigenous forest.

Active reforestation projects have included the planting of 29,000 indigenous trees in the last two years as Williamson Tea moves towards ensuring that all available land can sequester carbon.

Very careful consideration is given to species selection to optimise the natural environment and enhance wildlife habitat.

Common Sense

The tea industry has very little scientific research on the carbon footprint of the growing and harvesting of tea or the growing and harvesting of firewood for steam for the factory boilers.

Common sense suggests that many of the husbandry practices carried out by Williamson Tea for over 150 years both cycle and sequester carbon, but with the tea bush able to live well beyond one hundred years there are no known reliable carbon calculators that accurately compute the full cultivation and production of tea.

The nuances of the Kenya tea industry with its many thousands of small holder farmers, each with their own unique conditions makes empirical calculation of the carbon footprint of Kenyan tea a very complex task.

To address this issue Williamson Tea is engaging with the Tea Research Foundation of Kenya to develop a Carbon Calculator that is fit for purpose within Kenya. The aim is to develop a calculator that will deliver verifiable results that can be used by customers to accurately calculate the full carbon footprint of tea all the way from bush to cup.

Until such time as an appropriate calculator is available Williamson Tea will continue to focus on a common-sense approach of reduction and sequestration.



