



Standard



Country

Sri Lanka

Sri Lankan Biomass Renewable Energy Project

This Voluntary Carbon Standard (VCS) project uses renewable biomass to generate heat for processing tea at nine factories in Sri Lanka. It replaces the use of diesel fuel and provides an essential renewable energy resource to a country that will be severely impacted by continuing climate change.

The technology:

Biomass is all living matter including plants, crops, trees and waste products from agricultural processes which have sequestered carbon during their lifetime. Sustainably harvested timber is also a renewable source of biomass because the trees that are removed are replaced, resulting in no net loss in stored carbon dioxide (CO₂). Using biomass as a renewable resource for fuel replaces the use of fossil fuel and therefore prevents the release of CO₂ and other harmful pollutants from those fuels. In addition, the use of biomass improves energy sustainability, provides additional income to farmers and overcomes disposal issues.

Emission reductions:

Before the introduction of renewable biomass, the nine tea factories in this project were using approximately 1.2 million litres of diesel fuel a year to generate the heat required to dry the tea. This drying process produced approximately 3,000 tonnes of CO₂ annually along with harmful pollutants such as nitrogen and sulphur dioxide. The factories now use biomass from pruned tea plants, as well as sustainable wood grown in plantations located on the company's degraded and abandoned lands.

Additional benefits:

A project like this one not only helps combat climate change, but also helps strengthen the economy and social development. The project directly employs 30 additional full-time workers for the growing, harvesting and supplying of fuel wood. The owner has also developed roads on the estates, which has benefited thousands of permanent residents – employees, families, and non-workers alike. In addition, the The Talawakelle Tea Estate PLC has invested in housing for workers along with necessary roofing repairs, water facilities which improve access to drinking water, sanitation, and Community Development Centres.

Economic growth and improving living standards have placed a high demand on energy in Sri Lanka. As the tea sector is so integral to the economy, projects like this set the country on a path of using renewable, local sources rather than depending on imported fossil fuels that hurt the country's balance of trade and contribute to climate change.

The region:

The nine tea factories involved in this project are located in the Central Province of Sri Lanka - the province that produces much of the famous Ceylon tea.

Sri Lanka's economy is heavily based on agriculture, with tea in particular accounting for 15% of the country's gross domestic product (GDP). Due in part to the favourable conditions that produce high quality tea; Sri Lanka is the fourth largest tea producer and second largest tea exporter in the world. However, as with many island nations located around the equator, Sri Lanka is at significant risk from climate change. Rising temperatures will devastate Sri Lanka's dry zone agriculture; increased rainfall will cause more disease and natural disasters in low lying, flood prone areas; and the rising sea level will affect the coastal urban centres and economy where more than 40% of the population live.

How carbon offsetting helps the project:

It is expensive to develop and operate biomass technologies and that is where carbon finance can play an important role. Biomass renewable energy projects like this one are not required by law and often have to overcome financial and technological barriers to realise implementation. Carbon finance provides an additional revenue stream, helping to make these projects an attractive and viable option.

The reductions in CO₂ emissions achieved by this project are incremental to business-as-usual and measured by an independent verifier to internationally recognised standards. These emission reductions are then bought as carbon credits (offsets) by clients of The CarbonNeutral Company. Clients purchase carbon credits in order to take responsibility for their own emissions and contribute to the development of alternative energy supplies around the world to combat climate change.

Project area coordinates:

The nine tea factories are all located in the Central Province of Sri Lanka.

Sites are based between:

Holyrood Estate: Longitude 80° 39'46" East and latitude 06° 56'37" North.

Logie Estate: Longitude 80° 40'21" East and latitude 06° 55'55" North.

Radella Estate: Longitude 80° 42'53" East and latitude 06° 56'14" North.