

Citrus Farm Replaces Coal with Biomass in South Africa



A South African citrus farm and fruit juice producer switches from fossil fuel to climate-friendly biomass for steam and heat production.

A South African citrus farm and fruit juice producer switches from fossil fuel to climate-friendly biomass for heat production. Thereby this project reduces greenhouse gas emissions and makes use of a so far untapped local renewable energy resource.

Prior to the project, the citrus processor in Limpopo, South Africa, consumed coal to meet its thermal energy needs to dry fruit peels. Dried peels are a valuable side product and can be used as animal feed or fertiliser. The project has converted the kilns that provide the air to dry the peel in 2011. Since then, sawdust and wood chips are being used for this process.

Coal needs to be transported from long distances to the plant. But there is a better and local solution for thermal energy production than fossil fuel sourced from far away. The Limpopo region is home to a large number of sawmills processing wood from local forests and thereby accumulating huge quantities of sawdust and waste wood. This biomass waste is a so far untapped resource but readily available within a radius of 50 kilometres to the citrus farm.

Additionally to the reduction of CO₂, the project creates temporary and permanent jobs. Part of these contributions to climate protection from myclimate also benefit a workers' foundation that finances scholarships, for example, for the education of employees and their children or supports the renovation of the workers' housing on the farm.

This project contributes to 3 SDGs (as of end

Project type:

Biomass

Project location:

Limpopo, South Africa

Project status:

In operation, no credits available

Annual CO₂ reduction:

3,000 t

Situation without project

Coal firing

Project standard

Gold Standard[®]

VER

Impressions



The citrus farm cultivates oranges, grapefruits and bananas on an area of around 1,800 hectares.



There is still a lot of manual work at the farm. The oranges are being harvested without machines.

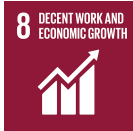
2021):

Find out how myclimate reports these SDGs in our FAQ.

The following SDGs are verified by the Gold Standard:



15,800 tonnes of sawdust burnt for drying 6,700 tonnes of fruit peels. This resulted in 4,325 tonnes of coal avoided.



The project created four permanent jobs.



For drying one tonne of peels, 1.66 t CO₂ or 625 kg of coal are being avoided.



Each year 120,000 tonnes of fruits are being processed.



Prior to the project, the citrus processor in Limpopo consumed coal to dry orange peels, releasing climate-damaging emissions.