

A Business Model for Sustainable Composting and Greenhouse Gas Emission Reduction

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Abstract

Together with other individuals, in January 2007 EOSTA established Soil & More Int. BV, an independent company with the objective to manage large-scale compost production plants worldwide.

The composting technology Soil & More has developed tackles various challenges. Applying the unique Soil & More compost inoculant in an aerated, controlled microbial compost process, the different input materials—mainly farmyard wastes such as greens, wood, and manure—are decomposed and transformed into a stable humus complex within 6 to 8 weeks.

This high-quality compost product provides the plants with all required nutrients and microelements. Because of the special humus structure, the water-holding capacity of the soils is increased up to 70%, which is an important added value for growers in arid and semiarid areas. Initiated through the inoculant, the final compost contains millions of microorganisms, a tightly knitted soil-food web, creating a natural immune system for the plant, acting as natural predators against most known soil-born diseases and other pathogens. This disease suppression is one of the outstanding selling points of Soil & More's compost.

Besides the compost production and selling activity, Soil & More submitted its composting technology for approval as an emission-reduction methodology to the concerned United Nations authorities. Following this, Soil & More's initial partner project at the Sekemfarm in Egypt was taken through the entire cycle of assessment, third-party validation, and verification required for emission-reduction projects. Finally, this project, implementing Soil & More's composting technology, was approved by TÜV as a greenhouse gas emission-reduction project according to the guidelines of the United Nations Framework Convention on Climate Change (UNFCCC).

That means Soil & More can offer a cooperation model for the production and sales of high-quality compost but provides at the same time a technology that qualifies as a emission-reduction methodology under the regulations of the Kyoto protocol, generating an additional income stream for the project, as the CO₂ emissions reduced can be sold as carbon credits to offsetting companies and, in special cases, to governments.

Whereas the South African project still is in the setup phase, together with the Egyptian and Mexican project partners, Soil & More will produce in 2007 about 50,000 tons of compost and will reduce more than 25,000 tons of CO₂ thanks to its low-emission composting technology. Including the South African project, the projections for 2008 are more than 120,000 tons of compost produced and about 100,000 tons of CO₂ reduction.

Recently, Soil & More has also developed the first TUV-certified full-product cycle carbon footprint assessment tool. Applying this calculation model, companies are able to calculate a full-product cycle carbon footprint of their products, from farm to retail, according to IPCC guidelines, certified by a UN-accredited certification body. Upon offset of the calculated emissions, the concerned products can be marketed as a TUV-certified "Climate-Neutral Product."

Using Soil & More's carbon credits, the calculated emissions can be offset with sector-internal emission-reduction rights, generated from composting sites, operated jointly with organic growers worldwide.

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