



SAHAMITR WASTEWATER TREATMENT THAILAND

Repurposing harmful greenhouse emissions
to generate sustainable electricity



By capturing the methane emissions from wastewater storage at a Tapioca plant in Thailand, this project creates a sustainable resource for generating thermal energy and electricity. The project provides employment to the local community and has positive impacts on the local environment by improving the air quality.



The Context

Tapioca starch production is a large industry in Thailand. However the starch production process produces great amounts of wastewater which, when stored in large open lagoons, produces the harmful greenhouse gas methane. This gas is not only damaging to the atmosphere, but also creates an unpleasant smell in communities surrounding the starch factory.

The Project

This project introduces an innovative system for capturing and repurposing methane emissions. By installing an anaerobic covered lagoon at an existing starch plant, methane is captured instead of emitted into the atmosphere. This methane can then be used as biogas, and is combusted in the boiler for heat generation in the starch drying process and for powering the factory. The treated wastewater from the open lagoon is also reused in the factory.

The Benefits

This project significantly reduces greenhouse gas emissions by capturing methane and providing an alternative energy resource to the burning of fossil fuels. The construction and operation of the project has provided direct and indirect employment to the local community, providing capacity building to workers in the area. The recycling of treated wastewater promotes sustainability in water supply while preventing groundwater shortages for local communities. The project also has positive impacts on the local environment by improving air quality of surrounding areas.

Combating climate change and improving health by capturing methane and recycling wastewater



HEALTH

in surrounding communities improves as less methane emissions pollute the air



161,481
m³

of wastewater treated annually, which can be recycled for further use in the factory



JOBS

generated in project construction and operation have boosted the local economy



8,061
tCo₂e

reduced annually by providing a sustainable fuel source and removing methane emissions from the atmosphere

For more information on the UN Sustainable Development Goals, please visit: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Official name: Sahamitr Tapioca Chonburi Wastewater Treatment and Biogas Utilization

UNFCC/markit/VCS link: https://mer.markit.com/br-reg/public/project.jsp?project_id=100000000000367 | **UNFCCC/markit/VCS ID:** 100000000000367