

## **Put a good palm on the tank**

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*The brothers Siem replants a treeless savannah in Colombia. The results are good workplaces and sustainable, Norwegian fuel.*

Can a plant be evil? No, it cannot, but careless people can grow plants at the wrong places. African palms gives five time more oil than other plants and it thrives everywhere. Asia hence sacrifices their rainforests.

Would palm oil from the Sahara desert be wrong? No one cries if the sand transforms into green plantations. It is rather a climate goal in itself.

At the natural Savannah of Los Llanos in Colombia, the forest only grows by the rivers. Comprehensive cattle ranching on arson grass courts, produces little food and destroys the already carbon-poor soil. Hot sun and a lot of rain, few meters above the ocean near equator creates the optimal environment for the African palm, and the Colombian government wants more agriculture at this site.

Until now, war and conflicts has stopped the plans. After the peace-agreement with the Colombian revolutionist armed forces (FARC) the state can take back the control over the village, and a new law of industrial agriculture, secure the state's right to rent out their own land.

The Norwegian industrialists, Kristian and Ole Martin Siem, has already started the production of palm oil in Los Llanos. The project consisting of 60.000 hectares of land, a medium size farm in Latin America context, shows climate benefits and enough volume to save the government's goal for biodiesel given in the state budget bill.

This project is documented in two reports that will be made public in the Tekna's seminar at Litteraturhuset in Oslo on Thursday. I have studied the development in the country as a researcher associated with the peace negotiations, and now as a consultant, I have mapped the social- and environmental effects.

Yearly harvests of 1,2 million tons of palm fruit gives 280 million litres traditional biodiesel, which is enough to substitute 7,5 per cent of the Norwegian fuel consumption. It takes 770 million dollars of investments, and will be profitable if the market is willing to pay for sustainable biodiesel.

There are no other real alternatives. It is expensive to use Norwegian forest, and initial CO<sub>2</sub>-emissions worsens the climate. The EU prohibits all palm oil from the rain forests.

International financial institutions wants to finance the project to create development and peace in the village. 6,000 new jobs can integrate both coca growers and guerrilla soldiers.

An area in Colombia the size of Østlandet, is suitable for cultivation. By making the technically more advanced product hydro generated vegetable oil (HVO), it is possible to increase the share of biodiesel up to 40 per cent without damaging Norwegian diesel motors. The independent Quantis International has calculated that the project reduces emission of greenhouse gasses with 134 per cent compared to fossil diesel.

The rising palm on the treeless Savannah binds more CO<sub>2</sub> than what is released by cultivation, harvesting, processing and transportation of the biodiesel.

Modern computation of wastewater and plant rests does not give any methane gas. The use of its own bioenergy and river shipping minimizes the emissions. Only fertilizers are brought into the production. The more that is cultivated, the better for the climate.

European canola oil for biofuel displace grazing cattle which instead are feed on soya from the Brazilian rainforest. In the Colombian project, the second hand effects on the other hand is positive. New infrastructure, inflow of workforce and specialized suppliers reduces the operating- and establishment costs for others. New cattle-, palm-, wood- and food production will, therefor be located here instead of in the Amazon.

Facilitation of agriculture and biodiesel at the right places is an effective measure for protecting the rainforest, both in Latin America and Asia.

There are no social barriers. The area is uncrowded, and locals are not directly affected. There was not a lot of violence from the paramilitary here, and there is not recorded any claims of returning soils. But, the project needs help from the Colombian government for the urban planning, registration of land rights and keeping law and order, in addition to secure open international transport routs.

Norwegian governments has a special position to help, mostly by verifying that palm oil biofuel from Los Llanos is climate friendly.

Norway need sustainable biodiesel fast to achieve the political goals, and it will take time before a large plantation will be ready. The growth can be defended by dividing the areal on more actors.

The certificating process are becoming more difficult, but is doable. Then the set goal of volume can be achieved already in 2023-23. In the meanwhile, it is possible to buy existing production. The first tank boat with biodiesel from Colombian sustainable palm oil for Norwegian truck tanks can be shipped from Cartagena this summer.