
Stora Enso and GM trees: Intensifying destruction of forests and peoples

Stora-Enso, a giant Swedish-Finnish industrial forestry company and one of the largest producers of pulp and paper in the world, is anxious to forge ahead with research into genetically modified (GM) trees. The vast industrial tree plantations Stora Enso owns in Latin America and Asia have already been causing multiple violations of environmental and human rights (1). A survey made public in 2014 by *The Forests Dialogue*, a multi-stakeholder platform, revealed that the company intends to expand its production even further, likely with GM trees (2).

Expansion of its tree plantations, which already cover hundreds of thousands of hectares across the world, is the driver of Stora Enso's business. The company is building a new pulp and paper plant and a cardboard factory in China, which will be supplied by approximately 90,000 hectares of tree plantations. The company also owns operations in India, Korea, Laos and Pakistan. In Uruguay, the "Montes del Plata" pulp and paper company owned by Stora Enso and the Chilean firm Arauco are supplied by 190,000 hectares of tree plantations. In Brazil, Stora Enso and the Brazilian company Fibria own Veracel Celulose, which holds 211,000 hectares, 90,000 hectares of which are planted with eucalyptus. It also owns 43,000 hectares in the state of Rio Grande do Sul, about half of which are covered with eucalyptus (3). According to its reply to *The Forest Dialogue's* questionnaire, the company expects to develop field trials of GM trees in Brazil.

With the objective to keep developing new products and services based on wood (4), Stora Enso is seeking technologies to intensify production. Although it is not known to have GM tree plantations as yet, the company clearly intends to go down this path in spite of the environmental and social hazards involved.

In its response to *The Forest Dialogue* questionnaire, Stora Enso admitted that GM trees could spread just like any other "improved" specie emerging from its breeding programs or their hybrids. The company even remarked that it sees no difference between possible GM trees and "other clones emerging from our breeding program," which indicates that the company refuses to acknowledge the risks associated with GM tree propagation. These risks include the genetic contamination of habitats which could seriously affect biodiversity. Besides, as they grow faster, they consume more water, causing more wells and springs to dry up. Local populations would be exposed not only to the hazardous agrochemicals used on the plantations, but also to inhaling pollen containing transgenic Bt toxin, introduced to produce deathly proteins for insects (6).

Similarly, Stora Enso continued saying that: "We do not see any social impacts, positive or negative, which could be attributed to genetic engineering technology *per se*." And it went on to say: "From a social point of view, we think that GM trees are no different than other plantation[s] emerging from the breeding program." No social impact at all?

Industrial plantations, with or without GM trees, occupy vast areas of land and forests, contaminate

soils and water sources and, directly or indirectly, worsen the displacement of more communities from their territories, destroying local livelihoods and food sovereignty. In saying that they don't see "any social impacts at all", Stora Enso is ignoring complaints against it, such as one lodged before the UN Human Rights Council in 2013 for environmental and human rights violations in its eucalyptus plantations and planned cardboard factory in China (7).

Intensifying land use: What for?

One of Stora Enso's main arguments for pushing ahead research of GM trees is to intensify production as, according to the company, "intensification of production of food, fibre and fuels is necessary to meet the needs of the growing world population." As an example, the company provided a link to a video about its plantations in the Brazilian state of Bahia, where it claimed "intensive wood production in tree plantations has stabilized land use and enabled restoration of native forests."

The video titled "Stora Enso is saving rainforest" (8), tells the story of how the establishment of eucalyptus plantations alongside areas set aside for land recovery led to increased biodiversity. What the video does not tell is that since the initial years of operations, its local subsidiary Veracel caused a great deal of deforestation with its tractors and bulldozers. So much so that a historic verdict by a federal court on June 17, 2008, obliged Veracel to replant native trees on all the areas for which eucalyptus planting licences were issued between 1993 and 1996, and to pay a fine of more than 12 million dollars (9). But eucalyptus plantations keep on spreading, and so do complaints by local communities due to the occupation of inhabited lands and devastating native forests, who have joined together in the Social and Environmental Forum of the Extreme South of Bahia and the Alert Network Against the Green Desert (10).

"Every year we plant 400 hectares of rainforest," says Eliane Anjos, Veracel's sustainability manager, on the video. She adds that the company has trained local populations on how to relate with forests and to manage native seeds. Besides that Ms. Anjos should be made aware that the planted area with eucalyptus plantations is way larger than that – at least 10 thousand hectares per year – and that plantations are not forests; the reality is that Veracel's plantations are encroaching on the traditional lands of the Pataxó indigenous people, who have denounced that the company has occupied roughly 30,000 hectares of their territory (11). How can a company having such serious negative impacts on forests and local communities claim to be "saving the rainforest"? Shouldn't the company be listening to local peoples and learning the real meaning of the rainforest and biodiversity from them?

"Intensifying land use," that is, the idea of producing more wood per hectare, would seem to be a convincing argument for relieving pressure on rainforests. But in that case, why, despite the already intensification of wood production in the last decades in countries like Brazil, have monoculture tree plantations continued to grow exponentially?

Expansion of industrial tree plantations goes hand in hand with increasing demand for wood products, especially in countries of the global North, whether for pulp and paper, fibre, fuel, carbon "storage" or other purposes. As demand for wood increases, so does pressure on rainforests and land. Genetic modification of trees in order to obtain faster growth, increased resistance to chemicals and insects and frost tolerance supports companies' profits and, therefore, the expansion of plantations. Commercial release of GM trees would cause loss of biodiversity and fresh water, soil desertification and serious effects on human health, all of which directly or indirectly cause the degradation and collapse of rainforest and native grassland ecosystems.

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- (1) <http://wrm.org.uy/articles-from-the-wrm-bulletin/section1/stora-ensos-propaganda-campaign-in-laos/>
 - (2) <http://theforestdialogue.org/publication/company-responses-questionnaire-development-genetically-modified-trees>
 - (3) <http://www.storaenso.com/About-Site/Pages/Stora-Enso-in-brief.aspx>
 - (4) Ver referencia (3)
 - (5) http://assets.storaenso.com/se/com/DownloadCenterDocuments/Policies_Wood_and_Fibre_Sourcing_and_Land_Management_2012_english.pdf
 - (6) For more information, see: <http://wrm.org.uy/books-and-briefings/genetically-modified-trees-the-ultimate-threat-to-forests/>
 - (7) <http://wrm.org.uy/articles-from-the-wrm-bulletin/section2/ngos-filed-a-complaint-to-united-nations-against-stora-ensos-human-rights-violations-in-china/>
 - (8)
 - (9) <http://www.wrm.org.uy/oldsite/bulletin/132/viewpoint.html>
 - (10) <http://wrm.org.uy/articles-from-the-wrm-bulletin/section2/brazil-occupation-of-veracels-tree-plantations-calls-upon-land-reform/>
 - (11) <http://wrm.org.uy/articles-from-the-wrm-bulletin/section2/brazil-veracel-plantations-certified-land-seizure/>