



Post-mining forest restoration in the Amazon

From 2018-ongoing | Total budget no specific budget

Mining drastically transforms landscapes worldwide and is an expanding activity in the Amazon. The impact of mining goes beyond the loss of vegetation cover and includes topographic and edaphic transformations that require intensive restoration efforts. Legal obligations and the increasing demand for sustainable mining call for the development of efficient restoration measures to compensate for the environmental impacts.

In the southern Brazilian Amazon, a partnership between a mining company and Brazilian ecologists and soil scientists has been promoting and monitoring the restoration of more than 80 hectares of mined lands since 1999. Since 2018, Wageningen University has been collaborating to evaluate how restoration success is affected by mining techniques, edaphic conditions, the planted species pool, the presence of exotic species and the characteristics of the surrounding landscape. One Master's thesis has been finalized and the other two are ongoing. The results of 10 years of monitoring show that the rates of vegetation growth and plant species accumulation are strongly affected by the edaphic characteristics of the different mining zones, being slower at the top and the bottom of mining tailings where soils have a very high sand or clay content, respectively.

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