

Tropical Scars: Deforestation Along Transport Infrastructure

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Summary: Sustainable development in tropical forest regions is largely dependent on our ability to promote human connectivity while preventing forest clearing. The focus on railway networks for the transport of people and goods could reduce the deforestation rate, given the expected lower road encroachment that commonly arise from the main roads (fishbone effect). However, to date, there have been no large-scale assessments on deforestation patterns along main roads and railways. In this presentation I will show the results of a recent assessment where we compared forest loss along main roads, railways, and control areas, for the past decades and throughout all tropical regions (n=30 countries). Overall, we found that forest loss is similar across the two types of infrastructure, which is likely related to the similar encroachment of secondary roads found on both transport corridors when compared to the control sites. Furthermore, forest loss showed an increasing trend along both types of infrastructure, but with lower rates in sites within protected areas or indigenous lands. However, there was a high variability across countries, suggesting that the role of major roads and railways in facilitating forest loss is context dependent. These results are discussed under different management actions.

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