

A major study finds many planned roads in the tropics shouldn't be built

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The researchers say many new roads being built or planned today are in high-rainfall tropical and subtropical areas, usually in developing nations.

"In these high-rainfall regions, even expensive roads can be rapidly rendered useless by numerous pot-holes, road slumping, and landslides," said lead author Dr Mohammed Alamgir.

"Unless there's expensive ongoing maintenance, big road projects can easily become giant money-losers for developing nations," said Dr Alamgir.

"Corruption plays a key role too," said co-author Professor William Laurance. "Many high-risk roads get approved only because government officials are being secretly paid off by road proponents."

"And often contractors build substandard roads—for example, using too little cement or road base—and then pocket the stolen proceeds, leaving the roads even more vulnerable to rapid collapse," said Laurance.

The study, published in *Current Biology*, examined the costs and benefits of tropical roads from economic, social and environmental perspectives.

"We knew roads were very dangerous for the environment—leading to sharp increases in illegal logging, fires, land speculation and poaching," said co-author Dr Mason Campbell. "But to us the big surprise was just how risky they were from economic and social perspectives."

Most developing nations have ambitious plans for road expansion, often designed to promote economic growth. For example, in just three years, the total length of paved roads will double in Asia's developing nations, according to the Asian Development Bank.

"It's a very dangerous time," said Prof. Laurance. "Our exhaustive study suggests that the economic, social and environmental risks of poorly planned roads are much greater than is generally understood."

"One can't avoid the conclusion that many ambitious schemes for [road expansion](#) are veering dangerously off-track," said Dr Alamgir.

More information: Mohammed Alamgir et al, Economic, Socio-Political and Environmental Risks of Road Development in the Tropics, *Current Biology* (2017). [DOI: 10.1016/j.cub.2017.08.067](https://doi.org/10.1016/j.cub.2017.08.067)

Provided by James Cook University

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