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ENVIRONMENTAL COSTS OF AMAZONIAN ROADBUILDING

Bruna and Kainer (*1*) imply that Brazil's Amazonian road building could help to promote "community-based timber management, the extraction of non-timber forest products, and other strategies advocated for slowing deforestation." Our collective experience in Amazonia over the past quarter century suggests otherwise. While their optimistic view may apply in a few, rather-rare situations—such as limited areas of Acre where socially cohesive groups of long-term forest dwellers prevail—it seems entirely foreign to the major hotbeds of deforestation, such as those in Mato Grosso, Rondônia, Roraima, and southern Pará.

For example, when completed, the Cuiabá-Santarém Highway (BR-163), one of the top priorities of the Brazilian federal government (*2*), is likely to create an 800 km-long swath of forest degradation across southern Amazonia. The highway is being paved to transport soybeans from Mato Grosso to the Amazon port of Santarém, almost entirely for the benefit of large corporations and landholders (*3*). The planned route is already swarming with land speculators, cut-and-run loggers, cattle ranchers, and soybean investors—hardly the cast of characters likely to promote a "community-based" utopia focused on maintaining forest for non-timber products. Far from being anomalous, the BR-163 typifies the ecological impacts that often accompany major new highways in the Amazonian frontier (*4-6*).

Moreover, contrary to Bruna and Kainer's suggestion, we do not advocate a "sweeping rejection" of proposed transportation and infrastructure projects in Brazilian Amazonia. This would indeed be naïve and divorced from reality. We do, however, believe that a limited subset of the proposed projects—particularly those that would create major corridors between densely populated areas and the remote Amazonian frontier—will be so damaging environmentally that their potential societal and economic benefits are clearly outweighed (*3-7*).

The notion that society has "needs" for new infrastructure, whereas it merely has "concerns" for the environment and its services, is a false dichotomy that implicitly will always lead to choices in favor of infrastructure. The implied conclusion that planned projects should never be rejected or delayed, but only "balanced" with environmental add-ons, would clearly imperil Amazonian forests (*7*). Current efforts to reduce rampant forest loss are likely to fail, we believe, unless the Brazilian government addresses one of the most fundamental causes of forest destruction: the dramatic proliferation of new transportation projects throughout the heart of the Amazon basin. Our recent Letter to *Science* (*2*) was intended to highlight this important inconsistency.

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