

IN BOX

What's an African Life Worth?



What crocodile-infested rivers and hovercrafts tell us about how people value their own safety.

BY ALICIA P.Q. WITTMAYER

The journey between Sierra Leone's Lungi International Airport and the country's capital, Freetown, isn't your average commute. Travelers must cross the Sierra Leone River -- roughly 10 miles across at its widest point. But there's no bridge and no real ground transport options to speak of. Instead, travelers must choose among four -- ferry, helicopter, water taxi, or hovercraft -- none of which are particularly safe. The river can be rough, and at night, many crossings are made without lights or proper navigation systems. Newspapers are littered with stories of near misses between overcrowded ferries, while the helicopters are old and unreliable (one 2007 crash killed 19, including a Togolese government minister).

Economists Gianmarco León of Spain's Universitat Pompeu Fabra and Edward Miguel of the University of California, Berkeley, looked at this unique urban-planning challenge and saw the makings of a natural experiment to address the question: What do travelers' transport choices say about the value they place on their own lives?

León and his staff collected data from Sierra Leone in 2010 and 2012, crossing the river on all the various modes of transport. "It was an adventure," says León.

They looked at who chose the cheap, slow, but safer ferry option; who opted for the pricey, fast, but crash-prone helicopter; and everything in between, in an effort to gauge how travelers weighed safety against both price and time. What they found was a disparity in measures of the worth that the average traveler places on his or her life -- a figure that economists refer to as the "value of a statistical life" (VSL): African travelers' VSL was \$577,000; non-Africans' was \$924,000.

Getting an accurate measure of VSL is more than just an academic exercise or a line on an actuarial table; it's a commonly used, if somewhat morbid, cost-benefit analysis tool used by everyone from urban planners to environmental engineers in order to justify investments. The U.S. Environmental Protection Agency values a life saved at \$7.4 million when assessing projects related to the Safe Drinking Water Act; the California Department of Transportation weighs the \$2.7 million VSL against the cost of, say, building a safer freeway.

There are far fewer estimates for developing countries, but the need for them is no less pressing, the study's authors explain. "When you look at Africa, there are massive amounts of foreign aid that are flowing in," León says. "The governments have money, and they have to decide where to put it. If you don't have policy instruments such as a reliable VSL estimate, you might be misallocating."

Putting their new estimate at policymakers' disposal, the authors argue, goes some way toward justifying investment in a new \$300 million airport on the Freetown side of the river; the present value in future lives saved accounts for about 20 percent of the cost, for example.

The flip side, of course, is that sometimes investments that could save lives, when put to the test, don't justify the costs.

Policymakers and academics have puzzled over why there appears to be reluctance in developing countries to invest in lifesaving health measures such as deworming and water quality protection. Greater understanding of VSL could tell us why.

The authors note that as African incomes continue to rise, riding the continent's economic boom, logic dictates that investments in lifesaving technology will grow to encompass everything from malaria eradication to monorails. In the meantime, if you're flying into the Lungi airport, brace yourself for a bumpy ride into town.

Illustration by Mitch Blunt