

Malaria cases in Africa are soaring. Here's the surprising reason why.

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Mosquitoes are seen inside a stock cage in a mosquito laboratory at the London School of Hygiene and Tropical Medicine in London, Thursday, May 30, 2013. (AP Photo/Sang Tan)

For decades, the hundreds of dams constructed across central and southern Africa have brought untold benefits to the world's poorest continent, from electricity for hospitals and schools to water supplies for drinking and agriculture.

But all that development has come at a cost: A huge surge in malaria cases.

That's the conclusion of the first peer-reviewed study to look at the cumulative effects of dam projects on disease rates in sub-Saharan Africa. The report, published in *Malaria Journal*, says dams are responsible for at least 1.1 million new malaria cases in Africa every year.

The authors suggest that developers have failed to anticipate the potential for disease outbreaks in choosing locations for new projects in highly populated areas. While dams clearly bring many benefits, the health problems associated with soaring malaria rates are significant enough to cancel out some of the progress they bring, said lead author Solomon Kibret, a biologist with the University of New England in Armidale, Australia.

"Adverse malaria impacts need to be addressed or they will undermine the sustainability of Africa's drive for development," Kibret said.

To measure the impact of dams, the team of five researchers plotted the locations of 1,268 dams in sub-Saharan African and then compared the locations with health records showing active malaria cases. About two-thirds of the dams were found to be in areas where malaria is endemic, and for these, the researchers compared disease

rates for people living close to the dams with rates for people living farther away.

The results showed a clear link between dam construction and higher rates of infection, Kibret said.

“The population at risk of malaria around dams is at least four times greater than previously estimated,” said Kibret, whose work was underwritten by the International Water Management Institute and the CGIAR Consortium, an international partnership of organizations that sponsors research on food security.

Many African countries have invested heavily in dam-building as a way to foster much-needed economic development, using water-control projects as a means of ensuring stable supplies of energy and food. While such projects are important, future dam construction should incorporate measures to reduce mosquito breeding, the report said.

Already, 78 major new dams are in the planning stages, and these will likely lead to an additional 56,000 new malaria cases annually unless precautions are taken, the study said.

“Dams are an important option for governments anxious to develop,” said co-author Matthew McCartney, of the International Water Management Institute. “But it is unethical that people living close to them pay the price of that development through increased suffering.”

Joby Warrick joined the Post’s national staff in 1996. He has covered national security, intelligence and the Middle East, and currently writes about the environment.

