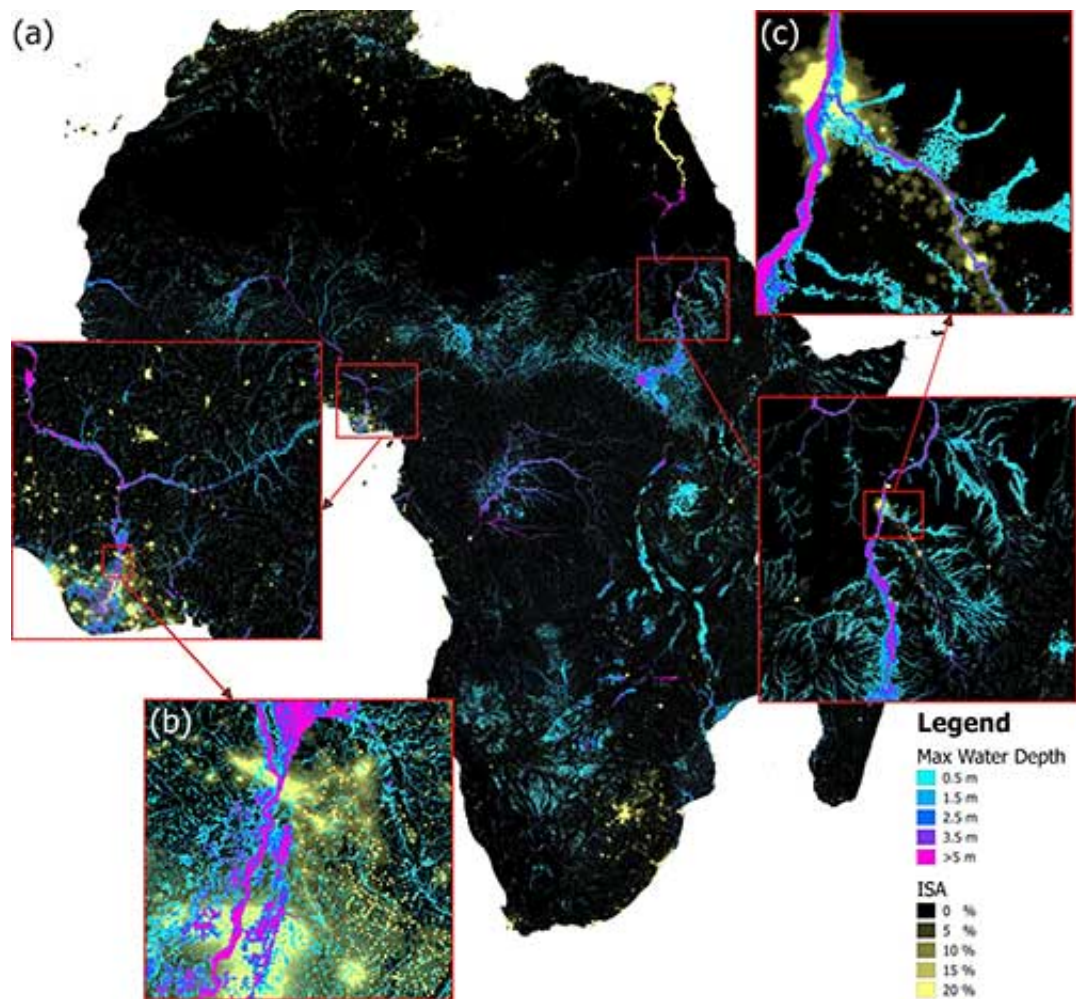


Reducing flood risk around the world

July 24 2015



Example hazard data from a global flood model, overlaid on impervious surface area (ISA) data as an indicator of exposure. The hazard data shown here are from the SSBN global flood model, created at the University of Bristol, and show 1-in-100-year maximum flood depth for: a, all of Africa; b, River Niger at Onitsha, Nigeria and c, Blue Nile at Omdurman, Sudan.

How global flood risk models are being used to reduce flood impacts around the world is the subject of a new review by an international team of researchers, including scientists from the University of Bristol.

By estimating the social and economic impacts of flooding, such new computer models help in the fight to protect people from devastating floods, and to reduce the economic losses associated with them.

In a commentary published today in *Nature Climate Change*, the researchers discuss how the UN, the World Bank Group (WBG), the Red Cross and other international organisations are using these models to improve national-level decisions on disaster risk management.

"As the world's population continues to grow, and the climate changes, the impacts of floods are expected to worsen," the authors said.

"However, that trend can be broken if effective flood [risk management](#) strategies are adopted. Global [flood risk](#) models can help in developing those strategies, especially when scientists and users work together towards a common goal of disaster risk reduction."

Using an Natural Environment Research Council (NERC) Impact award, Professor Paul Bates and colleagues Dr Chris Sampson, Dr Andrew Smith and Dr Jeff Neal in Bristol's School of Geographical Sciences have set up a start-up company, SSBN Ltd., to develop global flood models and licence the data sets to the insurance industry and international organisations such as the World Bank and UN. The company is then giving the data sets back to the University for research purposes. The researchers are also working with Google to make versions of the data sets freely available.

More information: "Usefulness and limitations of global flood risk models." *Nature Clim. Change*, Vol. 5, No. 8. (August 2015), pp. 712-715, [DOI: 10.1038/nclimate2742](https://doi.org/10.1038/nclimate2742) Key: citeulike:13682933

Provided by University of Bristol

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