Figure 1. Floods in the developing world. High deforestation rates in Java, Indonesia, likely contribute to the devastating floods in Jakarta in early 2007 (Photo: Y. Agung).

tsunamis; $n = 168$ from 1990–2000 [16]) still predicts that a 10% loss of native forest cover increases flood frequency by 2.9%–25.3%, people killed by 1.0%–6.9%, and people displaced by 0.7%–5.1% (see reference 4 for a detailed description of analysis structure). This reinforces the view that deforestation leads to greater flooding risk and severity (4), even for "larger scales and for larger events" (5). Other weak critiques that the effects of plantations were not properly developed and outliers were excluded (5) are equally irrelevant to the bigger picture. In most developing nations, plantations occupy considerably smaller areas than native forests (17), and the reliability of the plantation-area data is highly questionable (3). Regardless, we do know that plantations can release pollutants, cause erosion, and reduce soil fertility (18), and so their hydrological role is also likely to differ substantially from native vegetation. Outlier data (from China) were excluded (4) because they precluded model convergence, and the reported gains in total and natural forest cover from 1990–2000 were considered unreliable given this country's recent history of misreporting natural resource statistics such as fishery takes (19).

The growing correlative and experimental evidence therefore suggests that policy-lobbying organizations must embrace a united front in promoting the forests–flood protection link if they are to persuade governments to protect forests. The most convincing case would be mounted by a more active collaboration among hydrologists, risk analysts, ecologists, and forestry scientists, so that policy organizations are provided with a consistent message that is supported by multifaceted, interdisciplinary evidence. Only then will the education of politicians and bureaucrats convince the majority of the world's poor that their long-term prosperity and indeed, survival, may depend on their own decisions to restrict deforestation. International donors and a future global carbon offsets market should make forest regeneration in flood-prone and poverty-stricken areas a high priority, with active programs to restrict further deforestation (especially of primary forests) by compensating for short-term opportunity losses created by making the choice to forego land clearance.

As the world's human population expands and places mounting pressure on the Earth's finite resources, especially in developing nations, some argue that it is only by the clear demonstration of how personal well-being is sustained by healthy ecosystem services will people be ultimately convinced to avert ecological disaster and socioeconomic damage (20). The simple act of convincing the world's poor and their governments of this important relationship will lead to numerous positive outcomes for biodiversity and essential ecosystem services. A heightened fear of personal loss of life and property—backed by sound, quantitative scientific evidence—will assuage the erosion of carbon sequestration, pollination, water purification, and disease suppression services the world's forests provide.

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Corey J. A. Bradshaw
corey.bradshaw@adelaide.edu.au

Barry W. Brook
barry.brook@adelaide.edu.au

Research Institute for Climate Change and Sustainability
School of Earth and Environmental Sciences
University of Adelaide
Adelaide, South Australia 5005
Australia

Kelvin S.-H. Peh
School of Geography
University of Leeds
UK
kelvin.peh@gmail.com

Navjot S. Sodhi
Department of Biological Sciences
National University of Singapore
Singapore 117543
dbsns@nus.edu.sg