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The Aqueduct Global Flood Analyzer

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As population growth and economic growth take place, and as climate change accelerates, many regions across the globe are finding themselves increasingly vulnerable to flooding. A recent OECD study of the exposure of the world's large port cities to coastal flooding found that 40 million people were exposed to a 1 in 100 year coastal flood event in 2005, and the total value of exposed assets was about US$ 3,000 billion, or 5% of global GDP. By the 2070s, those numbers were estimated to increase to 150 million people and US $35,000 billion, or roughly 9% of projected global GDP. Impoverished people in developing countries are particularly at risk because they often live in flood-prone areas and lack the resources to respond. WRI and its Dutch partners - Deltares, IVM-VU University Amsterdam, Utrecht University, and PBL Netherlands Environmental Assessment Agency - are in the initial stages of developing a robust set of river flood and coastal storm surge risk measures that show the extent of flooding under a variety of scenarios (both current and future), together with the projected human and economic impacts of these flood scenarios. These flood risk data and information will be accessible via an online, easy-to-use Aqueduct Global Flood Analyzer. We will also investigate the viability, benefits, and costs of a wide array of flood risk reduction measures that could be implemented in a variety of geographic and socio-economic settings. Together, the activities we propose have the potential for saving hundreds of thousands of lives and strengthening the resiliency and security of many millions more, especially those who are most vulnerable. Mr. Iceland will present Version 1.0 of the Aqueduct Global Flood Analyzer and provide a preview of additional elements of the Analyzer to be released in the coming years.