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References

- AHERN, M., KOVATS, R. S., WILKINSON, P., FEW, R. & MATTHIES, F. 2005. Global health impacts of floods: epidemiologic evidence. *Epidemiol Rev*, 27, 36-46.
- BARRO, R. J. & LEE, J.-W. 2000. International Data on Educational Attainment. Cambridge, Massachusetts: Centre for International Development at Harvard University.
- BROWN, S., NICHOLLS, R. J., LOWE, J. A. & HINKEL, J. 2013. Spatial variations of sea-level rise and impacts: An application of DIVA. *Climatic Change*, (forthcoming). DOI: 10.1007/s10584-013-0925-y
- CASH, R. A., HALDER, S. R., HUSAIN, M., ISLAM, M. S., MALLICK, F. H., MAY, M. A., RAHMAN, M. & RAHMAN, M. A. 2013. Reducing the health effect of natural hazards in Bangladesh. *The Lancet*, 382, 2094-2103.
- CRED. 2011. *Emergency Events Database (EM-DAT)* [Online]. Louvain. Available: <http://www.emdat.be/> [Accessed 11 May 2011].
- DASGUPTA, S., LAPLANTE, B., MURRAY, S. & WHEELER, D. 2009. Climate change and the future impacts of storm-surge disasters in developing countries. Washington, DC.: Centre for Global Development.
- DE HAEN, H. & HEMRICH, G. 2007. The economics of natural disasters: implications and challenges for food security. *Agricultural Economics*, 37, 31-45.
- DONALDSON, L. J. & DONALDSON, R. J. 2003. *Essential Public Health*, Petroc Press.
- EMANUEL, K. 2005. Increasing destructiveness of tropical cyclones over the past 30 years. *Nature*, 436, 686-8.
- FEWTRELL, L. & KAY, D. 2008. An attempt to quantify the health impacts of flooding in the UK using an urban case study. *Public Health*, 122, 446-51.
- FRITZ, H. M., BLOUNT, C. D., THWIN, S., THU, M. K. & CHAN, N. 2009. Cyclone Nargis storm surge in Myanmar. *Nature Geosci*, 2, 448-449.
- HINKEL, J. & KLEIN, R. J. T. 2009. Integrating knowledge to assess coastal vulnerability to sea-level rise: The development of the DIVA tool. *Global Environmental Change*, 19, 384-395.
- IPCC 2012. Summary for Policymakers. In: FIELD, C. B., BARROS, V., STOCKER, T. F., QIN, D., DOKKEN, D. J., EBI, K. L., MASTRANDREA, M. D., MACH, K. J., PLATTNER, G. K., ALLEN, S. K., TIGNOR, M. & MIDGLEY, P. M. (eds.) *A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change*. Cambridge, UK & New York, NY, USA: Cambridge University Press.
- JONKMAN, S. N. 2005. Global perspectives on loss of human life caused by floods. *Natural Hazards*, 342, 151-175.
- JONKMAN, S. N., MAASKANT, B., BOYD, E. & LEVITAN, M. L. 2009. Loss of Life Caused by the Flooding of New Orleans After Hurricane Katrina: Analysis of the Relationship Between Flood Characteristics and Mortality. *Risk Anal*.
- JONKMAN, S. N., VRIJLING, J. K. & VROUWENVELDER, A. C. W. M. 2008. Methods for the estimation of loss of life due to floods: a literature review and a proposal for a new method. *Natural Hazards*, 46, 353-389.
- KELLENBERG, D. K. & MOBARAK, A. M. 2008. Does rising income increase or decrease damage risk from natural disasters? *Journal of Urban Economics*, 63, 1315-1337.
- KNABB, R. D., RHOME, J. R. & BROWN, D. P. 2006. Tropical Cyclone Report: Hurricane Katrina, 23-30 August 2005". Miami: National Hurricane Centre.

- LI, X., TAN, H., LI, S., ZHOU, J., LIU, A., YANG, T., WEN, S. W. & SUN, Z. 2007. Years of potential life lost in residents affected by floods in Hunan, China. *Trans R Soc Trop Med Hyg*, 101, 299-304.
- MAASKANT, B., JONKMAN, S. N. & BOUWER, L. M. 2009. Future risk of flooding: an analysis of changes in potential loss of life in South Holland (The Netherlands). *Environmental Science and Policy*, 12, 157-169.
- MCGRANAHAN, G., BALK, D. & ANDERSON, B. 2007. The rising tide: assessing the risks of climate change and human settlements in low elevation coastal zones. *Environment and Urbanization*, 19, 17-37.
- MCMICHAEL, A. J., CAMPBELL-LENDRUM, D., KOVATS, R. S., EDWARDS, S., WILKINSON, P., WILSON, T., NICOLLS, R. J., HALES, S., TANSER, F., LE SUER, D., SCHLESINGER, M. & ANDRONOVA, N. 2004. Global Climate Change. In: EZZATI, M., LOPEZ, A. D., RODGERS, A. & MURRAY, C. J. (eds.) *Comparative Quantification of Health Risks*. Geneva: WHO.
- NICHOLLS, R. J., HANSON, S., HERWIEJER, C., PATMORE, N., HALLEGATTE, S., CORFEE-MORLOT, J., CHATEAU, J. & MUIR-WOOD, R. 2007. Ranking of the world's cities most exposed to coastal flooding today and in the future. Paris: OECD.
- PATT, A. G., TADROSS, M., NUSSBAUMER, P., ASANTE, K., METZGER, M., RAFAEL, J., GOUJON, A. & BRUNDRIT, G. 2010. Estimating least-developed countries' vulnerability to climate-related extreme events over the next 50 years. *Proceedings of the National Academy of Sciences*, 107, 1333-1337.
- PEDUZZI, P., CHATENOUX, B., DAO, H., DE BONO, A., HEROLD, C., KOSSIN, J., MOUTON, F. & NORDBECK, O. 2012. Global trends in tropical cyclone risk. *Nature Clim. Change*, 2, 289-294.
- PELTIER, W. R. 2000a. Global glacial isostatic adjustment and modern instrumental records of relative sea level history. In: DOUGLAS, B. C., KEARNY, M. S. & LEATHERMAN, S. P. (eds.) *Sea level rise: history and consequences*. San Diego: Academic Press.
- PELTIER, W. R. 2000b. ICE4G (VM2) glacial isostatic adjustment corrections. In: DOUGLAS, B. C., KEARNY, M. S. & LEATHERMAN, S. P. (eds.) *Sea level rise: history and consequences*. San Diego: Academic Press.
- PENNING-ROSWELL, E., FLOYD, P., RAMSBOTTOM, D. & SURENDRAN, S. 2005. Estimating Injury and Loss of Life in Floods: A Deterministic Framework. *Natural Hazards*, 36, 43-64.
- RAPPAPORT, E. N. 2000. Loss of life in the United States associated with recent Atlantic tropical cyclones. *Bulletin of the American Meteorological Society*, 81, 2065-2073.
- REIS, J. D. S. & STEDINGER, J. R. 2005. Bayesian MCMC flood frequency analysis with historical information. *Journal of Hydrology*, 313, 97-116.
- SCHOENBERG, F. P. 2003. Multidimensional residual analysis of point process models for earthquake occurrences. *Journal of the American Statistical Association* 98, 789-795.
- SHULTZ, J. M., RUSSELL, J. & ESPINEL, Z. 2005. Epidemiology of tropical cyclones: the dynamics of disaster, disease, and development. *Epidemiol Rev*, 27, 21-35.
- UNDP. 2010. *The Human Development Index* [Online]. New York. Available: <http://hdr.undp.org/en/statistics/hdi/> [Accessed 11 May 2011].
- UNISDR 2011. GAR 2011: Revealing Risk, Redefining Development. Geneva: United Nations International Strategy for Disaster Reduction.
- UNITED NATIONS, D. O. E. A. S. A., POPULATION DIVISION. 2011. *World Population Prospects: The 2010 revision, Highlights and Advance Tables* [Online]. New York. Available: <http://esa.un.org/unpd/wpp/index.htm> [Accessed June 15th 2011].

- VAFEIDIS, A. T., NICHOLLS, R. J., MCFADDEN, L., TOL, R. S. J., SPENCER, T., P.S., G., BOOT, G. & KLEIN, R. J. T. 2008. A new global coastal database for impact and vulnerability analysis to sea-level rise. *Journal of Coastal Research*, 24, 917-924.
- VAN VUUREN, D. P., LUCAS, P. L. & HILDERINK, H. 2007. Downscaling drivers of global environmental change: Enabling use of global SRES scenarios at the national and grid levels. *Global Environmental Change*, 17, 114-130.
- WORLD BANK. 2012. *World Bank Development Indicators* [Online]. Available: <http://www.worldbank.org/> [Accessed October 25th 2012].