Supplementary List 1

|  |
| --- |
| Adelekan, I. O. (2010). Vulnerability of poor urban coastal communities to flooding in Lagos, Nigeria. *Environment and Urbanization* 22, 433–450. doi: 10.1177/0956247810380141Adelekan, I. O. (2011). Vulnerability assessment of an urban flood in Nigeria: Abeokuta flood 2007. *Natural Hazards* 56, 215–231. doi: 10.1007/s11069-010-9564-zAdelekan, I. O. (2015). Integrated Global Change Research in West Africa: Flood Vulnerability Studies. *Global Sustainability* 22, 163–184. doi: 10.1007/978-3-319-16477-9\_9Adelekan, I. O., and Asiyanbi, A. P. (2016). Flood risk perception in flood-affected communities in Lagos, Nigeria. *Nat Hazards* 80, 445–469. doi: 10.1007/s11069-015-1977-2Ago, E. E., Petit, F., and Ozer, P. (2005). Analyse des inondations en aval du barrage de Nangbeto sur le fleuve Mono (Togo et au Bénin). *Geo-Eco-Trop* 29, 1–14.Amoussou, E., Tramblay, Y., Totin, H. S., Mahé, G., and Camberlin, P. (2014). Dynamique et modélisation des crues dans le bassin du Mono à Nangbéto (Togo/Bénin). *Hydrological Sciences Journal* 59, 2060–2071. doi: 10.1080/02626667.2013.871015Antwi-Agyei, P., Quinn, C. H., Adiku, S. G. K., Codjoe, S. N. A., Dougill, A. J., Lamboll, R., et al. (2017). Perceived stressors of climate vulnerability across scales in the Savannah zone of Ghana: a participatory approach. *Reg Environ Change* 17, 213–227. doi: 10.1007/s10113-016-0993-4Asare-Kyei, D., Renaud, F. G., Kloos, J., Walz, Y., and Rhyner, J. (2017). Development and validation of risk profiles of West African rural communities facing multiple natural hazards. *PLoS ONE* 12, 1-26. doi: 10.1371/journal.pone.0171921Asare-Kyei, D. K., Kloos, J., and Renaud, F. G. (2015). Multi-scale participatory indicator development approaches for climate change risk assessment in West Africa. *International Journal of Disaster Risk Reduction* 11, 13–34. doi: 10.1016/j.ijdrr.2014.11.001Bollin, C., and Hidajat, R. (2006). “Community-based disaster risk index: Pilot implementation in Indonesia,” in Measuring Vulnerability to Natural Hazards: Towards Disaster Resilient Societies, ed. J. Birkmann (Tokyo: United Nations University Press), 271–289.Brooks, N., Adger, W. N., and Kelly, P. M. (2005). The determinants of vulnerability and adaptive capacity at the national level and the implications for adaptation. *Global Environmental Change* 15, 151–163. doi: 10.1016/j.gloenvcha.2004.12.006Codjoe, S. N. A., and Afuduo, S. (2015). Geophysical, socio-demographic characteristics and perception of flood vulnerability in Accra, Ghana. *Natural Hazards* 77, 787–804. doi: 10.1007/s11069-015-1624-yCutter, S. L., Boruff, B. J., and Shirley, W. L. (2003). Social Vulnerability to Environmental Hazards\*. *Social Science Q* 84, 242–261. doi: 10.1111/1540-6237.8402002de Sherbinin, A., Chai-Onn, T., Jaiteh, M., Mara, V., Pistolesi, L., Schnarr, E., et al. (2015). Data Integration for Climate Vulnerability Mapping in West Africa. *IJGI* 4, 2561–2582. doi: 10.3390/ijgi4042561Emmanuel, A. L., Batablinlè, L., Célestin, M., and Hodabalo, K. (2019a). Future Extremes Temperature: Trends and Changes Assessment over the Mono River Basin, Togo (West Africa). *JWARP* 11, 82–98. doi: 10.4236/jwarp.2019.111006Emmanuel, A. L., Hounguè, N. R., Biaou, C. A., and Badou, D. F. (2019b). Statistical Analysis of Recent and Future Rainfall and Temperature Variability in the Mono River Watershed (Benin, Togo). *Climate* 7, 1–17. doi: 10.3390/cli7010008Eriksen, S. E., Klein, R. J., Ulsrud, K., Næss, L. O., and O’Brien, K. (2007). Climate change adaptation and poverty reduction: Key interactions and critical measures.Report prepared for the Norwegian Agency for Development Cooperation (Norad). GECHS Report 1.Essou, G. R. C., and Brissette, F. (2013). Climate Change Impacts on the Ouémé River, Benin, West Africa. *J Earth Sci Clim Change* 04, 1–10. doi: 10.4172/2157-7617.1000161Hagenlocher, M., Schneiderbauer, S., Sebesvari, Z., Bertram, M., Renner, K., Renaud, F. G., et al. (2018). Climate Risk Assessment for Ecosystem-based Adaptation*:* A guidebook for planners and practitioners. Bonn.Hahn, M. B., Riederer, A. M., and Foster, S. O. (2009). The Livelihood Vulnerability Index: A pragmatic approach to assessing risks from climate variability and change—A case study in Mozambique. *Global Environmental Change* 19, 74–88. doi: 10.1016/j.gloenvcha.2008.11.002Kissi, A. E., Abbey, G. A., Agboka, K., and Egbendewe, A. (2015). Quantitative Assessment of Vulnerability to Flood Hazards in Downstream Area of Mono Basin, South-Eastern Togo: Yoto District. *JGIS* 07, 607–619. doi: 10.4236/jgis.2015.76049Komi, K., Amisigo, B., and Diekkrüger, B. (2016). Integrated Flood Risk Assessment of Rural Communities in the Oti River Basin, West Africa. *Hydrology* 3, 1–14. doi: 10.3390/hydrology3040042Lokonon, B. O. K. (2019). Farmers’ vulnerability to climate shocks: insights from the Niger basin of Benin. *Climate and Development* 11, 585–596. doi: 10.1080/17565529.2018.1511403Niang, I., Ruppel, O. C., Abdrabo, M. A., Essel, A., Lennard, C., Padgham, J., et al. (2014). “Africa,” in AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability. *Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, eds. V. R. Barros, C. B. Field, D. J. Dokken, M. D. Mastrandrea, K. J. Mach, T. E. Bilir, et al. (Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA), 1199–1265.Ntajal, J., Lamptey, B. L., Mahamadou, I. B., and Nyarko, B. K. (2017). Flood disaster risk mapping in the Lower Mono River Basin in Togo, West Africa. *International Journal of Disaster Risk Reduction* 23, 93–103. doi: 10.1016/j.ijdrr.2017.03.015Ologunorisa, T. E., and Adeyemo, A. (2005). Public Perception of Flood Hazard in the Niger Delta, Nigeria. *Environmentalisty (The Environmentalist)* 25, 39–45. doi: 10.1007/s10669-005-3095-2Pabi, O., Ayivor, J. S., and Ofori, B. D. (2019). Adaptive Stategies of Smallholder Farming Systems to Changing Climate Conditions in the Vicinity of Kogyae Strict Nature Reserve within the Forest-Savanna Transitional Zone of Ghana. *West African Journal of Applied Ecology* 27, 88–105.Power, A. G. (2010). Ecosystem services and agriculture: tradeoffs and synergies. *Philos Trans R Soc Lond, B, Biol Sci* 365, 2959–2971. doi: 10.1098/rstb.2010.0143Salami, R. O., Meding, J. K. von, and Giggins, H. (2017). Urban settlements' vulnerability to flood risks in African cities: A conceptual framework. *Jamba* 9, 370. doi: 10.4102/jamba.v9i1.370Sanchez, A. C., Fandohan, B., Assogbadjo, A. E., and Sinsin, B. (2012). A countrywide multi-ethnic assessment of local communities’ perception of climate change in Benin (West Africa). *Climate and Development* 4, 114–128. doi: 10.1080/17565529.2012.728126Yankson, P. W. K., Owusu, A. B., Owusu, G., Boakye-Danquah, J., and Tetteh, J. D. (2017). Assessment of coastal communities’ vulnerability to floods using indicator-based approach: a case study of Greater Accra Metropolitan Area, Ghana. *Natural Hazards* 89, 661–689. doi: 10.1007/s11069-017-2985-1 |

**Supplementary List 1.** Literature used for impact chain development. Partially informed by Schudel et al. (forthcoming).