

Population and Climate Change: What Are the Links?

RECOMMENDED READINGS

ACADEMIC SOURCES:

1. Ahmadalipour, A. et al. (2019). Future drought risk in Africa: Integrating vulnerability, climate change, and population growth. *Science of the Total Environment*, 662. Pp 672-686. <https://doi.org/10.1016/j.scitotenv.2019.01.278>
2. Bongaarts, J., O'Neill, B. (2018). Global warming policy: Is population left out in the cold? *Science*, 361(6403), 650-652. doi: 10.1126/science.aat8680. <https://science.sciencemag.org/content/361/6403/650>
3. Diffenbaugh, N., Burke, M. (2019). Global warming has increased global economic inequality. *PNAS*, 116(20), 9808-9813. <https://doi.org/10.1073/pnas.1816020116>
4. Kidanu, A., Rovin, K., Hardee, K. (2013). Linking population, fertility, and family planning with adaptation to climate change: perspectives from Ethiopia. *African Journal of Reproductive Health*, 17(3): 15-29. <https://www.jstor.org/stable/23485709>
5. Lopez-Carr, D. et al. (2014). A spatial analysis of population dynamics and climate change in Africa: potential vulnerability hot spots emerge where precipitation declines and demographic pressures coincide. *Population and Environment*, 35: 323-339. doi 10.1007/s11111-014-0209-0. <https://link.springer.com/article/10.1007/s11111-014-0209-0>
6. 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(1), 17-37. <https://doi.org/10.1177/0956247807076960>
7. Murtaugh, P., Schlax, M. (2009). Reproduction and the carbon legacies of individuals. *Global Environmental Change*, 19, 14-20. <https://doi.org/10.1016/j.gloenvcha.2008.10.007>
8. OECD (2011). The Challenges for Social Cohesion in a Shifting World. *Perspectives on Global Development 2012: Social Cohesion in a Shifting World*, OECD Publishing, Paris, https://doi.org/10.1787/persp_glob_dev-2012-7-en
9. O'Neill, B. et al. (2010). Global demographic trends and future carbon emissions. *Proceedings of the National Academy of Sciences of the United States of America*, 107(41), 17521-17526. <https://doi.org/10.1073/pnas.1004581107>
10. Satterthwaite, D. (2009). The implications of population growth and urbanization for climate change. *Environment and Urbanization*, 21(2), 545-567. <https://doi.org/10.1177/0956247809344361>
11. Scovronick, N. et al. (2017). Impact of population growth and population ethics on climate mitigation policy. *Proceedings of the National Academy of Sciences*, 114(46), 12338-12343. <https://doi.org/10.1073/pnas.1618308114>
12. Starbird, E., Norton, M., and Marcus, R. (2016). Investing in family planning: Key to achieving the sustainable development goals. *Global Health: Science and Practice*, 4(2), 191-210. <https://doi.org/10.9745/GHSP-D-15-00374>

**ACADEMIC SOURCES:**

13. Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O., & Ludwig, C. (2015). The trajectory of the Anthropocene: The Great Acceleration. *The Anthropocene Review*, 2(1), 81–98. <https://doi.org/10.1177/2053019614564785>

GENERAL SOURCES:

1. Central Intelligence Agency and The World Factbook. (2017). *Country Comparison: Total Fertility Rate*. Central Intelligence Agency. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2127rank.html>
2. Dennis, B. (2019). Washington Post. Climate and Environment. Changing climate imperils global food and water supplies, new U.N. study finds. *Washington Post*. Retrieved from <https://www.washingtonpost.com/climate-environment/2019/08/08/solving-climate-change-requires-fixing-forests-food-landmark-un-report-finds/>
3. Dormido, H. (2019, August 6). These Countries Are the Most at Risk From a Water Crisis. Retrieved from <https://www.bloomberg.com/graphics/2019-countries-facing-water-crisis/>
4. Emmott, S. (2015, December 4). Though climate change is a crisis, the population threat is even worse. Retrieved from <https://www.theguardian.com/commentisfree/2015/dec/04/climate-change-population-crisis-paris-summit>
5. Falconer, R. (2019, September 23). UN Report: Climate change causes and impacts are increasing. Retrieved from <https://www.axios.com/un-report-climate-change-accelerating-e3b60548-575b-4fca-a324-51f1171927ab.html>
6. FAO, FAO, IFAD, UNICEF, WFP and WHO. (2018). *The State of Food Security and Nutrition in the World 2018: Building climate resilience for food security and nutrition*. FAO. <http://www.fao.org/3/i9553en/i9553en.pdf>
7. Hardee, K. and Jiang, L. (2009). *How Do Recent Population Trends Matter to Climate Change?* Population Action International. http://pai.org/wp-content/uploads/2012/01/population_trends_climate_change_FINAL.pdf
8. IPCC. (2018). Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. Retrieved from https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf
9. IPCC. (2019). Summary for Policymakers. In: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D. C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)]. Retrieved from <https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/>

**GENERAL SOURCES:**

10. Kleinman, G. et al. (2017). *Geographic hotspots for World Bank action on climate change and health: investing in climate change and health series (English)*. Washington, DC: World Bank Group. <http://documents.worldbank.org/curated/en/209401495434344235/Geographic-hotspots-for-World-Bank-action-on-climatechange-and-health-investing-in-climate-change-and-health-series>
11. Lopez, E. (2019, November 29). Rising Seas Threaten Early End for Sinking Village in Philippines. Retrieved from <https://www.reuters.com/article/us-climate-change-philippines-widerimage/rising-seas-threatenearly-end-for-sinking-village-in-philippines-idUSKBN1Y400C>
12. Malone, E.L., Brenkert, A. (2009). Vulnerability, sensitivity, and coping/adaptive capacity Worldwide. In Ruth, M and M Ibarraran (Eds.) *The Distributional Effects of Climate Change: Social and Economic Implications*. Dordrecht: Elsevier Science, pp. 8-45. http://pai.org/wp-content/uploads/2009/08/Malone_resilience.pdf
13. Mooney, C. and Dennis, B. (2019, September 25). New U.N. climate report: Monumental change already here for world's oceans and frozen regions. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/climate-environment/2019/09/25/new-un-climate-report-massive-change-already-here-worlds-oceans-frozen-regions/>
14. Muggah, R. and Cabrera, J.L. (2019, January 23). The Sahel is engulfed by violence. Climate change, food insecurity and extremists are largely to blame. Retrieved from <https://www.weforum.org/agenda/2019/01/all-the-warning-signs-are-showing-in-the-sahel-we-must-act-now/>
15. Nugent, C. (2019, July 11). The 10 Countries Most Vulnerable to Climate Change Will Experience Population Booms in the Coming Decades. *Time*. Retrieved from <https://time.com/5621885/climate-change-population-growth/>
16. O'Sullivan, J. (2013). Population growth as a variable: providing the single most powerful lever for minimising the extent of climate change and the negative impacts of climate change. [Letter]. *Sustainable Population Australia*. Retrieved from https://unfccc.int/files/science/workstreams/the_2013-2015_review/application/pdf/spa_submission_to_sbsta_review_of_global_goal-march_2013.pdf
17. Petterson, M. (2019). Climate explained: how growth in population and consumption drives planetary change. <https://theconversation.com/climate-explained-how-growth-in-population-and-consumption-drives-planetary-change-126671>
18. Population Action International (PAI). (2011). Why population matters to climate change. PAI. Washington, DC. Retrieved from <https://pai.org/policy-briefs/why-population-matters-to-climate-change/>
19. Population Action International (PAI). (2012). Population and Climate Change: A comprehensive approach to development can help build climate change resilience and adaptive capacity. PAI. Washington, DC. Retrieved from https://pai.org/wp-content/uploads/2012/01/climate_datasheet.pdf
20. Population Action International (PAI). (2014). Population Dynamics, Environment, and Sustainable Development in Kenyan Counties. PAI. Washington, DC. Retrieved from <https://pai.org/policy-briefs/kenya-county-briefs/>
21. Population Matters. (2018, October 8). IPCC 1.5° Report: The Hidden Population Warning. Retrieved from <https://populationmatters.org/ipcc-15-degree-report-hidden-population-warning>

**GENERAL SOURCES:**

22. Population Matters. (2019, April 5). Population Growth Slows Progress Towards Sustainable Development Goals, Says UN. Retrieved from <https://populationmatters.org/news/2019/04/05/population-growth-slows-progress-towards-sustainable-development-goals-says-un>
23. Population Matters. (2020). Climate Change. Retrieved from <https://populationmatters.org/the-facts/climate-change>
24. Potts, M. et al. (2013). Crisis in the Sahel: Possible Solutions and the Consequences of Inaction. The OASIS Initiative, UC Berkeley College of Natural Resources, Bixby Center for Population, Health, and Sustainability, AFIEDP. http://bixby.berkeley.edu/wp-content/uploads/2015/03/potts_2013_oasis_crisis_in_the_sahel.pdf
25. Roskick, D. (2014). The Consequences of Increased Population Growth for Climate Change. Center for Economic and Policy Research. Washington, DC. Retrieved from <http://cepr.net/documents/Climate-population-2014-12.pdf>
26. United Nations, Department of Economic and Social Affairs, Population Division. (2019). World Population Prospects 2019: Highlights. Retrieved from https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf
27. United Nations, Department of Economic and Social Affairs, Population Division. (2019). World Population Prospects 2019: Ten Key Findings. Retrieved from https://population.un.org/wpp/Publications/Files/WPP2019_10KeyFindings.pdf
28. United Nations Population Fund (UNFPA). (2014). Population and Poverty. Retrieved from <https://www.unfpa.org/resources/population-and-poverty>
29. United Nations Population Fund (UNFPA), International Institute for Environment and Development. (2009). Population Dynamics and Climate Change. J.M. Guzman, et al. (Ed). Retrieved from https://www.unfpa.org/sites/default/files/resource-pdf/pop_dynamics_climate_change_0.pdf (PDF)
30. U.S. Energy Information Administration. (2019). What is the United States' share of world energy consumption? Retrieved from <https://www.eia.gov/>
31. Wheeler, D and D Hammer. (2010). The Economics of Population Policy for Carbon Emissions Reduction in Developing Countries. CGD Working Paper 229. Washington, DC: Center for Global Development. https://www.cgdev.org/sites/default/files/1424557_file_Wheeler_Hammer_Economics_Pop_Policy.pdf
32. WMO, UN Environment, Global Carbon Project, IPCC, Future Earth, Global Framework for Climate Services. (2019). *United In Science: High-level synthesis report of latest climate science information convened by the Science Advisory Group of the UN Climate Action Summit 2019*. WMO. UN Climate Action Summit 2019. <https://wedocs.unep.org/bitstream/handle/20.500.11822/30023/climsci.pdf>
33. The World Bank. (2018, March 19). *Climate Change Could Force Over 140 Million to Migrate Within Countries by 2050*. Retrieved from <https://www.worldbank.org/en/news/press-release/2018/03/19/climate-change-could-force-over-140-million-to-migrate-within-countries-by-2050-world-bank-report>

**RELATED SITES AND INFOGRAPHICS:**

1. Consultancy.uk. (2017, July 4). Global CO2 emissions and the 20 most polluting countries in the world. Retrieved from <https://www.consultancy.uk/news/13553/global-co2-emissions-and-the-20-mostpolluting-countries-in-the-world>
2. Ghosh, I. (2019, May 31). All the World's Carbon Emissions in One Chart. Retrieved from <https://www.visualcapitalist.com/all-the-worlds-carbon-emissions-in-one-chart/>
3. Population Action International (PAI). (2011). Population and Climate Change Hotspots. Population Action International. <http://pai.org/wp-content/uploads/2013/03/Hotspots.pdf>
4. Richtie, H. and Roser, M. (2017, May). CO2 and Greenhouse Gas Emissions. Retrieved from <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions#co2-embedded-in-trade>
5. Sherbinin, A. and Adamo, S. (2016). Mapping Climate Change Hotspots. Center for International Earth Science Information Network. Earth Institute, Columbia University. http://www.ciesin.org/binaries/web/global/news/2016/de_sherbinin_adamo_platform_hotspotmapping_final.pdf