

Creating Community Health by Simon Lennane

[ISBN 9781032490045](#)

Chapter 9: Planetary health

Notes, references and links

1. Rockström J, Steffen W, Noone K, et al. Planetary boundaries: exploring the safe operating space for humanity.

Ecol Soc. 2009;14(2).

doi:10.5751/ES-03180-140232

<https://www.ecologyandsociety.org/vol14/iss2/art32/>

2. Raworth, Kate. *Doughnut Economics: Seven Ways to Think like a 21st-Century Economist*.

Random House; 2017. ISBN 978-1847941374

<https://www.kateraworth.com/doughnut/>

3. *Worldwide, poor air quality causes 7mn deaths annually; chemical pollution 1.8mn; lack of access to safe water 1.6mn; climate change 300,000; ozone depletion 49,000; and land conversion 8,300 deaths.*

4. de Gruijl FR, Longstreth J, Norval M, et al. Health effects from stratospheric ozone depletion and interactions with climate change.

Photochem Photobiol Sci. 2003;2(1):16.

doi:10.1039/b211156j

<https://link.springer.com/article/10.1039/b211156j>

5. Smith B. Ethics of Du Pont's CFC strategy 1975-1995.

J Bus Ethics. 1998;17:557-568.

doi:10.1023/A:1005789810145

<https://link.springer.com/article/10.1023/A:1005789810145>

6. Janson C, Henderson R, Löfdahl M, Hedberg M, Sharma R, Wilkinson AJK. Carbon footprint impact of the choice of inhalers for asthma and COPD.

Thorax. 2020;75(1):82-84.

doi:10.1136/thoraxjnl-2019-213744

<https://thorax.bmj.com/content/75/1/82>

7. Wilkinson AJK, Braggins R, Steinbach I, Smith J. Costs of switching to low global warming potential inhalers. An economic and carbon footprint analysis of NHS prescription data in England.
BMJ Open. 2019;9(10):e028763.
doi:10.1136/bmjopen-2018-028763
<https://bmjopen.bmj.com/content/9/10/e028763>
8. Fecht D, Fischer P, Fortunato L, et al. Associations between air pollution and socioeconomic characteristics, ethnicity and age profile of neighbourhoods in England and the Netherlands.
Environ Pollut. 2015;198:201-210.
doi:10.1016/j.envpol.2014.12.014
<https://www.sciencedirect.com/science/article/abs/pii/S0269749114005144>
9. Marmot M, Allen J, Boyce T, Goldblatt P, Morrison J. *Health Equity in England: The Marmot Report 10 Years On*.
Institute of Health Equity; 2020:172.
<https://www.instituteofhealthequity.org/resources-reports/marmot-review-10-years-on/the-marmot-review-10-years-on-full-report.pdf>
10. Committee On the Medical Effects of Air Pollutants (COMEAP). *Statement on the Evidence for the Effects of Nitrogen Dioxide on Health*.; 2015.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/411756/COMEAP_The_evidence_for_the_effects_of_nitrogen_dioxide.pdf
11. King's College London. *London Average Air Quality Levels*.; 2018.
<https://data.london.gov.uk/dataset/london-average-air-quality-levels>
12. Basner M, Babisch W, Davis A, et al. Auditory and non-auditory effects of noise on health.
The Lancet. 2014;383(9925):1325-1332.
doi:10.1016/S0140-6736(13)61613-X
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(13\)61613-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)61613-X/fulltext)
13. Royal College of Physicians of London, ed. *Every Breath We Take: The Lifelong Impact of Air Pollution: Report of a Working Party*.
Royal College of Physicians of London; 2016.
<https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>
14. NICE Programme Development Group. *Physical Activity: Walking and Cycling*.
National Institute for Health and Care Excellence; 2012:120.
www.nice.org.uk/guidance/ph41

15. World Health Organization; *WHO Global Air Quality Guidelines. Particulate Matter (PM_{2.5} and PM₁₀), Ozone, Nitrogen Dioxide, Sulfur Dioxide and Carbon Monoxide*. Geneva; 2021.
<https://www.who.int/publications/i/item/9789240034228>
16. Wong CM, Tsang H, Lai HK, et al. Cancer mortality risks from long-term exposure to ambient fine particle.
Cancer Epidemiol Biomarkers Prev. 2016;25(5):839-845.
doi:10.1158/1055-9965.EPI-15-0626
<https://aacrjournals.org/cebpa/article/25/5/839/71066/Cancer-Mortality-Risks-from-Long-term-Exposure-to>
17. Yusuf S, Joseph P, Rangarajan S, et al. Modifiable risk factors, cardiovascular disease, and mortality in 155 722 individuals from 21 high-income, middle-income, and low-income countries (PURE): a prospective cohort study.
The Lancet. 2020;395(10226):795-808.
doi:10.1016/S0140-6736(19)32008-2
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)32008-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)32008-2/fulltext)
18. Foley JA. Global consequences of land use.
Science. 2005;309(5734):570-574.
doi:10.1126/science.1111772
<https://www.science.org/doi/10.1126/science.1111772>
19. Slack, Amy, Tagholm, Hugo, Taylor, Daisy. *2021 Water Quality Report*. Surfers Against Sewage; 2021.
<https://www.sas.org.uk/water-quality/>
20. Drinking Water Inspectorate. *Drinking Water 2020: Private Water Supplies in England*.; 2021.
<https://www.dwi.gov.uk/what-we-do/annual-report/drinking-water-2020/#private-water-supplies>
21. Ward M, Jones R, Brender J, et al. Drinking water nitrate and human health: an updated review.
Int J Environ Res Public Health. 2018;15(7):1557.
doi:10.3390/ijerph15071557
<https://www.mdpi.com/1660-4601/15/7/1557>
22. Smith VH, Schindler DW. Eutrophication science: where do we go from here?
Trends Ecol Evol. 2009;24(4):201-207.
doi:10.1016/j.tree.2008.11.009
[https://www.cell.com/trends/ecology-evolution/fulltext/S0169-5347\(09\)00041-X](https://www.cell.com/trends/ecology-evolution/fulltext/S0169-5347(09)00041-X)

23. Otten TG, Paerl HW. Health effects of toxic cyanobacteria in US drinking and recreational waters: our current understanding and proposed direction.
Curr Environ Health Rep. 2015;2(1):75-84.
doi:10.1007/s40572-014-0041-9
<https://link.springer.com/article/10.1007/s40572-014-0041-9>
24. Falkenberg LJ, Bellerby RGJ, Connell SD, et al. Ocean acidification and human health.
Int J Environ Res Public Health. 2020;17(12):4563.
doi:10.3390/ijerph17124563
<https://www.mdpi.com/1660-4601/17/12/4563>
25. Sala E, Mayorga J, Bradley D, et al. Protecting the global ocean for biodiversity, food and climate.
Nature. 2021;592(7854):397-402.
doi:10.1038/s41586-021-03371-z
<https://www.nature.com/articles/s41586-021-03371-z>
26. *Global Health Risks: Mortality and Burden of Disease Attributable to Selected Major Risks*.
World Health Organization; 2009.
<https://apps.who.int/iris/handle/10665/44203>
27. World Health Organization. *Protecting Health from Climate Change : Connecting Science, Policy and People*.
World Health Organization; 2009:32.
<https://apps.who.int/iris/handle/10665/44246>
28. Levy BS, Sidel VW. Collective violence caused by climate change and how it threatens health and human rights.
Health Hum Rights. 2014;16(1):32-40.
doi: 10.1146/annurev-publhealth-031816-044232
<https://pdfs.semanticscholar.org/16ce/39f8fd5e2036a6a347a667b543e4eef598bb.pdf>
<https://sites.sph.harvard.edu/hhrjournal/2014/07/collective-violence-caused-by-climate-change-and-how-it-threatens-health-and-human-rights/>
29. Quiggin, Daniel, De Meyer, Kris, Hubble-Rose, Lucy, Froggatt, Antony. *Climate Change Risk Assessment 2021*.
Chatham House; 2021.
<https://www.chathamhouse.org/2021/09/climate-change-risk-assessment-2021>
30. Desai, Nitin, Egeland, Jan, Huq, Saleemul, et al. *Human Impact Report: Climate Change — the Anatomy of a Silent Crisis*.
Global Humanitarian Forum; 2009.
<https://www.ghf-ge.org/human-impact-report.pdf>

31. Rook GA. Regulation of the immune system by biodiversity from the natural environment: An ecosystem service essential to health.
Proc Natl Acad Sci. 2013;110(46):18360-18367.
doi:10.1073/pnas.1313731110
<https://www.pnas.org/doi/full/10.1073/pnas.1313731110>
32. Haahtela T, Holgate S, Pawankar R, et al. The biodiversity hypothesis and allergic disease: world allergy organization position statement.
World Allergy Organ J. 2013;6:3.
doi:10.1186/1939-4551-6-3
[https://www.worldallergyorganizationjournal.org/article/S1939-4551\(19\)30631-3/fulltext](https://www.worldallergyorganizationjournal.org/article/S1939-4551(19)30631-3/fulltext)
33. Cox DTC, Shanahan DF, Hudson HL, et al. Doses of neighborhood nature: the benefits for mental health of living with nature.
BioScience. Published online January 25, 2017.
doi:10.1093/biosci/biw173
<https://academic.oup.com/bioscience/article/67/2/147/2900179>
34. Chivian E. Why doctors and their organisations must help tackle climate change.
BMJ. 2014;348(apr02 3):g2407-g2407.
doi:10.1136/bmj.g2407
<https://www.bmj.com/content/348/bmj.g2407>
35. Ostfeld RS. Biodiversity loss and the ecology of infectious disease.
Lancet Planet Health. 2017;1(1):e2-e3.
doi:10.1016/S2542-5196(17)30010-4
[https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(17\)30010-4/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(17)30010-4/fulltext)
36. Vivid Economics, Natural History Museum. *The Urgency of Biodiversity Action.*; 2020.
<https://www.vivideconomics.com/wp-content/uploads/2021/02/210211-The-Urgency-of-Biodiversity-Action.pdf>
37. Patz JA, Daszak P, Tabor GM, et al. Unhealthy landscapes: policy recommendations on land use change and infectious disease emergence.
Environ Health Perspect. 2004;112(10):1092-1098.
doi:10.1289/ehp.6877
<https://ehp.niehs.nih.gov/doi/10.1289/ehp.6877>
38. Saaroni H, Amorim JH, Hiemstra JA, Pearlmutter D. Urban Green Infrastructure as a tool for urban heat mitigation: Survey of research methodologies and findings across different climatic regions.
Urban Clim. 2018;24:94-110.
doi:10.1016/j.uclim.2018.02.001
<https://www.sciencedirect.com/science/article/abs/pii/S2212095518300579>

39. Mayor of London. *Using Green Infrastructure to Protect People from Air Pollution*. Greater London Authority; 2019.
<https://www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/using-green-infrastructure-protect-people-air-pollution>
40. Donovan RG, Stewart HE, Owen SM, MacKenzie AR, Hewitt CN. Development and application of an urban tree air quality score for photochemical pollution episodes using the Birmingham, United Kingdom area as a case study.
Environ Sci Technol. 2005;39(17):6730-6738.
doi:10.1021/es050581y
<https://pubs.acs.org/doi/10.1021/es050581y>
41. Grandjean P, Landrigan PJ. Developmental neurotoxicity of industrial chemicals.
The Lancet. 2006;368(9553):2167-2178.
doi:10.1016/S0140-6736(06)69665-7
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(06\)69665-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(06)69665-7/fulltext)
42. VerBruggen, Robert. *Lead and Crime: A Review of the Evidence and the Path Forward*. Manhattan Institute; 2021.
<https://www.manhattan-institute.org/verbruggen-lead-and-crime-review-evidence>
43. Comber S, Gardner M, Sörme P, Leverett D, Ellor B. Active pharmaceutical ingredients entering the aquatic environment from wastewater treatment works: A cause for concern?
Sci Total Environ. 2018;613-614:538-547.
doi:10.1016/j.scitotenv.2017.09.101
<https://www.sciencedirect.com/science/article/abs/pii/S0048969717324439>
44. Martínez JL. Antibiotics and antibiotic resistance genes in natural environments.
Science. 2008;321(5887):365-367.
doi:10.1126/science.1159483
<https://www.science.org/doi/10.1126/science.1159483>
45. Daughton, Christian, Brooks, Bryan. Active pharmaceutical ingredients and aquatic organisms. In: *Environmental Contaminants in Biota: Interpreting Tissue Concentrations*. 2nd ed. Taylor and Francis; 2010.
doi: 10.1201/b10598-10
https://www.researchgate.net/publication/281596044_Active_Pharmaceutical_Ingredients_and_Aquatic_Organisms
46. IPCC. Summary for policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press; 2021.
<https://www.ipcc.ch/report/ar6/wg1/>
The scientific literature concerning climate change.

47. Ritchie H, Roser M. CO₂ and greenhouse gas emissions. *Our World Data*. Published online May 11, 2020.
<https://ourworldindata.org/co2-emissions>
48. Costello A, Abbas M, Allen A, et al. Managing the health effects of climate change. *The Lancet*. 2009;373(9676):1693-1733.
doi:10.1016/S0140-6736(09)60935-1
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(09\)60935-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)60935-1/fulltext)
49. McMichael AJ, Friel S, Nyong A, Corvalan C. Global environmental change and health: impacts, inequalities, and the health sector. *BMJ*. 2008;336(7637):191-194.
doi:10.1136/bmj.39392.473727.AD
<https://www.bmj.com/content/336/7637/191>
50. Jongman B, Winsemius HC, Aerts JCJH, et al. Declining vulnerability to river floods and the global benefits of adaptation. *Proc Natl Acad Sci*. 2015;112(18):E2271-E2280.
doi:10.1073/pnas.1414439112
<https://www.pnas.org/doi/full/10.1073/pnas.1414439112>
51. Morin CW, Comrie AC, Ernst K. Climate and dengue transmission: evidence and implications. *Environ Health Perspect*. 2013;121(11-12):1264-1272.
doi:10.1289/ehp.1306556
<https://ehp.niehs.nih.gov/doi/10.1289/ehp.1306556>
52. Tanser FC, Sharp B, Sueur D le. Potential effect of climate change on malaria transmission in Africa. *The Lancet*. 2003;362(9398):1792-1798.
doi:10.1016/S0140-6736(03)14898-2
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(03\)14898-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(03)14898-2/fulltext)
53. Mora C, McKenzie T, Gaw IM, et al. Over half of known human pathogenic diseases can be aggravated by climate change. *Nat Clim Change*. Published online August 8, 2022.
doi:10.1038/s41558-022-01426-1
<https://www.nature.com/articles/s41558-022-01426-1>
54. Christie, Alex. Blast from the past: pathogen release from thawing permafrost could lead to future pandemics. *Camb J Sci Policy*. 2021;2(2):1-8.
doi:10.17863/CAM.74501
<https://www.repository.cam.ac.uk/handle/1810/327048>

55. Lawrance E, Thompson R, Fontana G, Jennings N. *The Impact of Climate Change on Mental Health and Emotional Wellbeing: Current Evidence and Implications for Policy and Practice*.

Imperial College London; 2021.

doi:10.25561/88568

<https://spiral.imperial.ac.uk/handle/10044/1/88568>

56. Bressler RD. The mortality cost of carbon.

Nat Commun. 2021;12(1):4467.

doi:10.1038/s41467-021-24487-w

<https://www.nature.com/articles/s41467-021-24487-w>

57. Hales S, de Wet N, Maindonald J, Woodward A. Potential effect of population and climate changes on global distribution of dengue fever: an empirical model.

The Lancet. 2002;360(9336):830-834.

doi:10.1016/S0140-6736(02)09964-6

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(02\)09964-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(02)09964-6/fulltext)

58. Tennison I, Roschnik S, Ashby B, et al. Health care's response to climate change: a carbon footprint assessment of the NHS in England.

Lancet Planet Health. 2021;5(2):e84-e92.

doi:10.1016/S2542-5196(20)30271-0

[https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(20\)30271-0/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30271-0/fulltext)

59. Thiel CL, Woods NC, Bilec MM. Strategies to reduce greenhouse gas emissions from laparoscopic surgery.

Am J Public Health. 2018;108(S2):S158-S164.

doi:10.2105/AJPH.2018.304397

<https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2018.304397>

60. McAlister S, Barratt AL, Bell KJ, McGain F. The carbon footprint of pathology testing.

Med J Aust. 2020;212(8):377-382.

doi:10.5694/mja2.50583

<https://onlinelibrary.wiley.com/doi/full/10.5694/mja2.50583>

61. Sherman J, Le C, Lamers V, Eckelman M. Life cycle greenhouse gas emissions of anesthetic drugs.

Anesth Analg. 2012;114(5):1086-1090.

doi:10.1213/ANE.0b013e31824f6940

https://journals.lww.com/anesthesia-analgesia/Fulltext/2012/05000/Life_Cycle_Greenhouse_Gas_Emissions_of_Anesthetic.25.aspx

62. Smith, James, Bansal, Aarti, Barron-Snowdon, Joe, Keeley, Duncan, Wilkinson, Alex. *How to Reduce the Carbon Footprint of Inhaler Prescribing: A Guide for Healthcare Professionals in the UK*. Greener Practice; 2021.
<https://www.greenerpractice.co.uk/information-and-resources/clinical-considerations/guide-to-reducing-the-carbon-footprint-of-inhaler-prescribing/>
63. Connor A, Lillywhite R, Cooke MW. The carbon footprints of home and in-center maintenance hemodialysis in the United Kingdom.
Hemodial Int. 2011;15(1):39-51.
doi:10.1111/j.1542-4758.2010.00523.x
<https://onlinelibrary.wiley.com/doi/10.1111/j.1542-4758.2010.00523.x>
64. Andersen MPS, Sander SP, Nielsen OJ, Wagner DS, Sanford TJ, Wallington TJ. Inhalation anaesthetics and climate change.
Br J Anaesth. 2010;105(6):760-766.
doi:10.1093/bja/aeq259
[https://www.bjanaesthesia.org/article/S0007-0912\(17\)33404-9/fulltext](https://www.bjanaesthesia.org/article/S0007-0912(17)33404-9/fulltext)
65. McAlister S, Ou Y, Neff E, et al. The environmental footprint of morphine: a life cycle assessment from opium poppy farming to the packaged drug.
BMJ Open. 2016;6(10):e013302.
doi:10.1136/bmjopen-2016-013302
<https://bmjopen.bmj.com/content/6/10/e013302>
66. Daughton CG. Cradle-to-cradle stewardship of drugs for minimizing their environmental disposition while promoting human health. Rationale for and avenues toward a green pharmacy.
Environ Health Perspect. 2003;111(5):757-774.
doi:10.1289/ehp.5947
<https://ehp.niehs.nih.gov/doi/10.1289/ehp.5947>
67. Maibach EW, Nisbet M, Baldwin P, Akerlof K, Diao G. Reframing climate change as a public health issue: an exploratory study of public reactions.
BMC Public Health. 2010;10(1):299.
doi:10.1186/1471-2458-10-299
<https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-10-299>
68. Myers TA, Nisbet MC, Maibach EW, Leiserowitz AA. A public health frame arouses hopeful emotions about climate change.
Clim Change. 2012;113(3-4):1105-1112.
doi:10.1007/s10584-012-0513-6
<https://link.springer.com/article/10.1007/s10584-012-0513-6>

69. Stern N. Summary of conclusions. In: *The Economics of Climate Change: The Stern Review*. 1st ed.
Cambridge University Press; 2007.
doi:10.1017/CBO9780511817434
<https://www.lse.ac.uk/GranthamInstitute/publication/the-economics-of-climate-change-the-stern-review/>
70. Stern, Nicholas. The criticality of the next 10 years - delivering the global agenda and building infrastructure for the 21st century.
Presented at: The Stern review +10; October 28, 2015; London School of Economics and Political Science.
<https://www.lse.ac.uk/granthaminstitute/news/the-stern-review-10-new-opportunities-for-growth-and-development/>
71. Wagner G, Anthoff D, Cropper M, et al. Eight priorities for calculating the social cost of carbon.
Nature. 2021;590(7847):548-550.
doi:10.1038/d41586-021-00441-0
<https://www.nature.com/articles/d41586-021-00441-0>
72. Stern N, Stiglitz JE. *The Social Cost of Carbon, Risk, Distribution, Market Failures: An Alternative Approach*.
National Bureau of Economic Research; 2021.
doi:10.3386/w28472
https://www.nber.org/system/files/working_papers/w28472/w28472.pdf
73. WWF. Footprint Calculator.
<https://footprint.wwf.org.uk/>
74. Global Footprint Network. How many planets does it take to sustain your lifestyle?
<http://www.footprintcalculator.org/>
75. Earth Overshoot Day.
<https://www.overshootday.org/>
76. Markandya A, Sampedro J, Smith SJ, et al. Health co-benefits from air pollution and mitigation costs of the Paris Agreement: a modelling study.
Lancet Planet Health. 2018;2(3):e126-e133.
doi:10.1016/S2542-5196(18)30029-9
[https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(18\)30029-9/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(18)30029-9/fulltext)