



**Literature for MESB02, Earth Systems Science applies from
autumn semester 2022**

Literature established by The Board of the Lund University Centre for
Sustainability Studies on 2022-06-09 to apply from 2022-08-24

See appendix.



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MESB02 LITERATURE LIST

2022-06-09

Dnr STYR 2022/1370

Biogeovetenskap, 7,5 högskolepoäng

Earth Systems Science, 7.5 credits

MESB02 litteraturlista fastställd av LUCSUS styrelse den 9 juni 2022.

Arneth, A., Olsson, L., Cowie, A., Erb, K.H., Hurlbert, M., Kurz, W.A., Mirzabaev, A. and Rounsevell, M.D., 2021. Restoring degraded lands. *Annual Review of Environment and Resources*, 46, pp. 569-599.

<https://www.annualreviews.org/doi/abs/10.1146/annurev-environ-012320-054809>

Ban, N. C., Davies, T. E., Aguilera, S. E., Brooks, C., Cox, M., Epstein, G., Evans, L. S., Maxwell, S. M., & Nenadovic, M. (2017, 2017/03/01/). Social and ecological effectiveness of large marine protected areas. *Global Environmental Change*, 43, 82-91. [10 pages]

Bellard, C., Leclerc, C., Leroy, B., Bakkenes, M., Veloz, S., Thuiller, W., & Courchamp, F. (2014). Vulnerability of biodiversity hotspots to global change. *Global Ecology and Biogeography*, 23(12), 1376-1386. [11 pages]

Benítez-López, A., Santini, L., Schipper, A. M., Busana, M., & Huijbregts, M. A. J. (2019). Intact but empty forests? Patterns of hunting-induced mammal defaunation in the tropics [Article]. *PLOS Biology*, 17(5). [18 pages]

Bennett, E. M., W. Cramer, A. Begossi, G. Cundill, S. Díaz, B. N. Egoh, I. R. Geijzendorffer, C. B. Krug, S. Lavorel & E. Lazos (2015) Linking biodiversity, ecosystem services, and human well-being: three challenges for designing research for sustainability. *Current opinion in environmental sustainability*, 14, 76-85. [9 pages]

Berzaghi, F., Longo, M., Ciais, P., Blake, S., Bretagnolle, F., Vieira, S., Scaranello, M., Scarascia-Mugnozza, G., & Doughty, C. E. (2019). Carbon

stocks in central African forests enhanced by elephant disturbance. *Nature Geoscience* 12, 725–729. [7 pages]

Bond, W. J., Stevens, N., Midgley, G. F., & Lehmann, C. E. (2019). The trouble with trees: afforestation plans for Africa. *Trends in ecology & evolution*, 34(11), 963-965. [2 pages]

Booth, H., Clark, M., Milner-Gulland, E. J., Amponsah-Mensah, K., Antunes, A. P., Brittain, S., Castilho, L. C., Campos-Silva, J. V., Constantino, P. d. A. L., Li, Y., Mandoloma, L., Nneji, L. M., Iponga, D. M., Moyo, B., McNamara, J., Rakotonarivo, O. S., Shi, J., Tagne, C. T. K., van Velden, J., & Williams, D. R. (2021). Investigating the risks of removing wild meat from global food systems. *Current Biology*, 31(8), 1788-1797.e1783. [10 pages]

Breitburg, D., Levin, L. A., Oschlies, A., Grégoire, M., Chavez, F. P., Conley, D. J., ... & Jacinto, G. S. (2018). Declining oxygen in the global ocean and coastal waters. *Science*, 359(6371). [13 pages]

Campbell, B. M., D. J. Beare, E. M. Bennett, J. M. Hall-Spencer, J. S. Ingram, F. Jaramillo, R. Ortiz, N. Ramankutty, J. A. Sayer & D. Shindell (2017) Agriculture production as a major driver of the Earth system exceeding planetary boundaries. *Ecology and Society*, 22. [11 pages]

Coombes, M. A. (2016). Biogeomorphology: diverse, integrative and useful. *Earth Surface Processes and Landforms*, 41(15), 2296-2300. [5 pages]

Ellis, E. C. (2019). Sharing the land between nature and people. *Science*, 364(6447), 1226-1228. [3 pages]

Friis, C. (2019). Telecoupling: A New Framework for Researching Land-Use Change in a Globalised World. In *Telecoupling* (pp. 49-67). Palgrave Macmillan, Cham. [18 pages]

Giakoumi, S., McGowan, J., Mills, M., Beger, M., Bustamante, R. H., Charles, A., Christie, P., Fox, M., Garcia-Borboroglu, P., Gelcich, S., Guidetti, P., Mackelworth, P., Maina, J. M., McCook, L., Micheli, F., Morgan, L. E., Mumby, P. J., Reyes, L. M., White, A., Grorud-Colvert, K., & Possingham, H. P. (2018). Revisiting “Success” and “Failure” of Marine Protected Areas: A Conservation Scientist Perspective [Perspective]. *Frontiers in Marine Science*, 5(223). [5 pages]

Gordon, L. J., Bignet, V., Crona, B., Henriksson, P. J., Van Holt, T., Jonell, M., ... & Folke, C. (2017). Rewiring food systems to enhance human health and biosphere stewardship. *Environmental Research Letters*, 12(10), 100201. [13 pages]

Keesstra, S. D., J. Bouma, J. Wallinga, P. Tittonell, P. Smith, A. Cerdà, L. Montanarella, J. N. Quinton, Y. Pachepsky & W. H. Van Der Putten (2016).

The significance of soils and soil science towards realization of the United Nations Sustainable Development Goals. *Soil*. [18 pages]

Krause, T., & Tilker, A. (2021). How the loss of forest fauna undermines the achievement of the SDGs. *Ambio*. [11 pages]

Konar, M., Evans, T. P., Levy, M., Scott, C. A., Troy, T. J., Vörösmarty, C. J., & Sivapalan, M. (2016). Water resources sustainability in a globalizing world: who uses the water?. *Hydrological Processes*, 30(18), 3330-3336. [6 pages]

Lenton, T. M., Rockström, J., Gaffney, O., Rahmstorf, S., Richardson, K., Steffen, W., & Schellnhuber, H. J. (2019). Climate tipping points—too risky to bet against. [1 page]

Liu, J., Herzberger, A., Kapsar, K., Carlson, A. K., & Connor, T. (2019). What Is Telecoupling?. In *Telecoupling* (pp. 19-48). Palgrave Macmillan, Cham. [29 pages]

Llovel, W., Purkey, S., Meyssignac, B., Blazquez, A., Kolodziejczyk, N., & Bamber, J. (2019). Global ocean freshening, ocean mass increase and global mean sea level rise over 2005–2015. *Scientific reports*, 9(1), 1-10. [10 pages]

Malhi, Y., Lander, T., le Roux, E., Stevens, N., Macias-Fauria, M., Wedding, L., Girardin, C., Kristensen, J. Å., Sandom, C. J., Evans, T. D., Svenning, J.-C., & Canney, S. (2022). The role of large wild animals in climate change mitigation and adaptation. *Current Biology*, 32(4), [16 pages]

Meyfroidt, P., Lambin, E. F., Erb, K. H., & Hertel, T. W. (2013). Globalization of land use: distant drivers of land change and geographic displacement of land use. *Current Opinion in Environmental Sustainability*, 5(5), 438-444. [5 pages]

O'Neill, D. W., Fanning, A. L., Lamb, W. F., & Steinberger, J. K. (2018). A good life for all within planetary boundaries. *Nature sustainability*, 1(2), 88-95. [8 pages]

Oreskes, N. (2004). The scientific consensus on climate change. *Science*, 306(5702), 1686-1686 [1 page]

Scanlon, B. R., B. L. Ruddell, P. M. Reed, R. I. Hook, C. Zheng, V. C. Tidwell & S. Siebert (2017) The food-energy-water nexus: Transforming science for society. *Water Resources Research*, 53, 3550-3556. [6 pages]

Scown, M. W., & K.A. Nicholas. "European Agricultural Policy Requires a Stronger Performance Framework to Achieve the Sustainable Development Goals." *Global Sustainability* 3 (2020). [11 pages]

Steffen, W., J. Rockström, K. Richardson, T. M. Lenton, C. Folke, D. Liverman, C. P. Summerhayes, A. D. Barnosky, S. E. Cornell & M. Crucifix (2018) Trajectories of the Earth System in the Anthropocene. *Proceedings of the National Academy of Sciences*, 115, 8252-8259. [7 pages]

Tóth, G., T. Hermann, M. R. da Silva & L. Montanarella (2018) Monitoring soil for sustainable development and land degradation neutrality. *Environmental monitoring and assessment*, 190, 57. [4 pages]

Turner, David. 2018. *The Green Marble: Earth System Science and Global Sustainability*. Columbia University Press. 328 pages. ISBN-13: 978-0231180610. [Course book: 328 pages]

Verburg, P. H., N. Crossman, E. C. Ellis, A. Heinimann, P. Hostert, O. Mertz, H. Nagendra, T. Sikor, K.-H. Erb & N. Golubiewski (2015) Land system science and sustainable development of the earth system: A global land project perspective. *Anthropocene*, 12, 29-41. [12 pages]

Vogel, R. M., U. Lall, X. Cai, B. Rajagopalan, P. K. Weiskel, R. P. Hooper & N. C. Matalas (2015) Hydrology: The interdisciplinary science of water. *Water Resources Research*, 51, 4409-4430. [21 pages]

Total number of pages

663 pages.

Reason for fewer number of references: This is the first course of the LUMES programme, and this course contains learning activities and take-home exams that demand extensive literature consultation, reading and evaluation, further increasing the amount of literature students will read. The students should select and read another 350 pages, which they can choose based on their individual assignment topic.

Author gender balance

12/32 = 38% female first-authors (in yellow).

Suggested complimentary readings (Social Science Library):

Ouriginal (n.d.). Plagiarism Handbook – a guide for both teachers and students. Available: <https://www.ouriginal.com/plagiarism-handbook/>

<https://www.awelu.lu.se/academic-integrity/plagiarism/>