Litteraturlista för MESB01, Biogeovetenskap gällande från och med höstterminen 2020

Litteraturlistan är fastställd av Styrelsen för Lunds universitets centrum för studier av uthållig samhällsutveckling 2020-06-11 att gälla från och med 2020-08-26

Se bilaga.

Biogeovetenskap, 10 högskolepoäng
Earth Systems Science, 10 credits

MESB01 litteraturlista fastställd av LUCSUS styrelse den 11 juni 2020 (Dnr STYR 2020/1049).

Adhikari, K., & Hartemink, A. E. (2016). Linking soils to ecosystem services—A global review. Geoderma, 262, 101-111. ***[11 pages]***

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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]***

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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]***

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]***

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Gain, A. K., Giupponi, C., & Wada, Y. (2016). Measuring global water security towards sustainable development goals. *Environmental Research Letters*, *11*(12), 124015. ***[11 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]***

Herrmann, S. M., Sall, I., & Sy, O. (2014). People and pixels in the Sahel: a study linking coarse-resolution remote sensing observations to land users' perceptions of their changing environment in Senegal. *Ecology and Society*, *19*(3). ***[18 pages]***

IPBES (2018): Summary for policymakers of the assessment report on land degradation and restoration of the Intergovernmental SciencePolicy Platform on Biodiversity and Ecosystem Services. R. Scholes, L. Montanarella, A. Brainich, N. Barger, B. ten Brink, M. Cantele, B.

Erasmus, J. Fisher, T. Gardner, T. G. Holland, F. Kohler, J. S. Kotiaho, G. Von Maltitz, G. Nangendo, R. Pandit, J. Parrotta, M. D. Potts, S. Prince, M. Sankaran and L. Willemen (eds.). IPBES secretariat, Bonn, Germany. ***[44 pages]***

Johansson, E. L., Fader, M., Seaquist, J. W., & Nicholas, K. A. (2016). Green and blue water demand from large-scale land acquisitions in Africa. *Proceedings of the National Academy of Sciences*, *113*(41), 11471-11476. ***[6 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]***

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]***

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]***

Perz, S. G. Collaboration Across Boundaries for Social-Ecological Systems Science: Experiences Around the World. Springer. ***[pages 1-21; 79-111; 115- 149 = 86 pages]***

Nyingi, W., Oguge, N., Dziba, L., Chandipo, R., Didier, T. A., Gandiwa, E., Kasiki, S., Kisanga, D., Kgosikoma, O., Osano, O., Tassin, J., Sanogo, S., von Maltitz, G., Ghazi, H., Archibald, S., Gambiza, J., Ivey, P., Logo, P. B., Maoela, M. A., Ndarana, T., Ogada, M., Olago, D., Rahlao, S., and van Wilgen, B. Chapter 4: Direct and indirect drivers of change in biodiversity and nature's contributions to people. In IPBES (2018): The IPBES regional assessment report on biodiversity and ecosystem services for Africa. Archer, E., Dziba, L., Mulongoy, K. J., Maoela, M. A., and Walters, M. (eds.). Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn, Germany, pp. 207–296. ***[89 pages]***

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]***

Sivapalan, M. (2015) Debates—Perspectives on socio-hydrology: Changing water systems and the "tyranny of small problems"—Socio-hydrology. Water Resources Research, 51, 4795-4805. ***[10 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 328 pages. ***[Course book: 328 pages]***

UNEP 2019. Global Environment Outlook - GEO-6: Healthy Planet, Healthy People. Paul Ekins; Joyeeta Gupta; Pierre Boileau (Editors). Cambridge University Press. Cambridge, UK. Link: https://www.unenvironment.org/resources/global-environment-outlook-6

- Summary for policy-makers (found here) ***[28 pages]***
- Regional analysis (found here) ***[21 pages]***
- Thematic analysis – water (found here) ***[6 pages]***
- Thematic analysis – Climate action (found here) ***[5 pages]***
- Thematic analysis – Land and biodiversity (found here) ***[8 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: 879. Female first-authors in blue.
Gender balance: 74/26

Reason for fewer number of references (1000 pages): Being the first course of the LUMES programme, this course has integrated within it other learning activities that would demand extensive literature consultation, reading and evaluation for fitness of use.