**Literature List for Environmental and Resource Use Challenges**

**Autumn 2022**

**Water**

Basic

Jones, J.A.A, 2011. Water Sustainability. A global Perspective. Oxford University Press 2011. Chapters 1 & 2.

Mandatory

WWAP (2015) (United Nations World Water Assessment Programme). The United Nations World Water Development Report 2015: *Water for a Sustainable World*. Paris, UNESCO: Executive Summary, Prologue, Chapters 1-4 (in Part 1: Unsustainable Growth and Water the three dimensions of Sustainable Development).

Ingram, H. (2011). "Beyond universal remedies for good water governance." In *Water for food in a changing world,* ed. A. Garrido and H. Ingram: 241-261.

Additional reading

WWAP (2015) (United Nations World Water Assessment Programme). The United Nations World Water Development Report 2015: *Water for a Sustainable World*. Paris, UNESCO: Chapter 9: Industry

**Soil**

Basic

FAO and ITPS. 2015. Status of the World’s Soil Resources (SWSR) – Main Report. Food and Agriculture Organization of the United Nations and Intergovernmental Technical Panel on Soils, Rome, Italy. (Chapter 5)

Mandatory

Smith et al. (2015) Global change pressures on soils from land use and management. *Global change biology* 22:1008–1028, doi: 10.1111/gcb.13068

Stolte J, et al. (Eds) (2016) Soil threats in Europe; EUR 27607 EN. (Specific chapter depending on assigned group. More information will be given closer to course start)

Additional reading

FAO and ITPS. (2015). Status of the World’s Soil Resources (SWSR) – Main Report. Food and Agriculture Organization of the United Nations and Intergovernmental Technical Panel on Soils, Rome, Italy. (Chapter 1-6)

**Food**

Basic

FAO, IFAD, UNICEF, WFP and WHO. 2021. In Brief to The State of Food Security and Nutrition in the World 2021. Download from: http://www.fao.org

Mandatory

Wheeler & von Braun (2013). Climate Change Impacts on Global Food Security. *Science* 341: 508-513

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., ... & Murray, C. J. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, *393* (10170), 447-492.

Additional reading

Lundqvist, J. et al. (2015). Water, food security and human dignity – a nutrition perspective. Ministry of Enterprise and Innovation, Swedish FAO Committee, Stockholm.

Agarwal, B. & Herring, R. (2013). Food security, productivity, and gender inequality. In *The Oxford Handbook of Food, Politics, and Society*.

Godfray et al. (2010). Food Security: The Challenge of Feeding 9 Billion People. *Science* 327: 812-818

**Energy**

Mandatory

Rosillo-Calle, F., A review of biomass energy - shortcomings and concerns. Journal of Chemical Technology and Biotechnology 2016, 91, (7), 1933-1945

Additional reading

Global Overview (chapter 1) in REN21. 2019. Renewables 2019 Global Status Report (Paris: REN21 Secretariat). ISBN 978-3-9818911-7-1 (available online)

**The Earth’s Crust**

# Basic

IRP *Assessing global resource use: A systems approach to resource efficiency and pollution reduction*. (2017). Bringezu, S., et al. Chapter 2.

# Mandatory

Mudd, G. M., & Jowitt, S. M. Global resource assessments of primary metals: An optimistic reality check. Natural Resources Research, (2018): 27(2), 229-240.

Northey, S. A., Mudd, G. M., & Werner, T. T. Unresolved complexity in assessments of mineral resource depletion and availability. Natural Resources Research, (2018): 27(2), 241-255.

Prior, Timothy, et al. "Resource depletion, peak minerals and the implications for sustainable resource management." *Global Environmental Change* 22.3 (2012): 577-587.

# Additional reading

Mason, Timothy et al. "Availability, addiction and alternatives: three criteria for assessing the impact of peak minerals on society." *Journal of Cleaner Production* 19 (2011) 958-966.

Bardi, Ugo, and Alessandro Lavacchi. "A simple interpretation of Hubbert’s model of resource exploitation." *Energies* 2.3 (2009): 646-661.

**Ecosystems**

Mandatory
Costanza, R., de Groot, R., Braat, L., Kubiszewski, I., Fioramonti, L., Sutton, P., Farber, S., & Grasso, M. (2017). Twenty years of ecosystem services: How far have we come and how far do we still need to go? Ecosystem Services, 28, 1–16.

Pascual, U., Adams, W. M., Díaz, S., Lele, S., Mace, G. M., & Turnhout, E. (2021). Biodiversity and the challenge of pluralism. Nature Sustainability, 1-6.

Additional
IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

Mace, Georgina M., Ken Norris, and Alastair H. Fitter. Biodiversity and ecosystem services: a multilayered relationship. Trends in ecology & evolution 27.1 (2012): 19-26.

Small, N., Munday, M., & Durance, I. (2017). The challenge of valuing ecosystem services that have no material benefits. Global Environmental Change, 44, 57–67.

**The role of multinational corporations in sustainable development**

Mandatory

Porter, M. and Kramer, M. (2011) Creating shared value, *Harvard Business Review*, Jan-Feb: 1-17.

Crane, A., Palazzo, G., Spence, L. and Matten, D. (2014) Contesting the value of “creating shared value”. *California Management Review*, 56 (2): 130–153.

Additional reading

Kolk, A. (2016). The social responsibility of international business: From ethics and the environment to CSR and sustainable development. *Journal of World Business*, *51*(1), 23-34.

**Resource use challenges**

Mandatory

UNEP (2010) *Assessing the Environmental Impacts of Consumption and Production: Priority Products and Materials*, A Report of the Working Group on the Environmental Impacts of Products and Materials to the International Panel for Sustainable Resource Management. Hertwich, E., et al.

Seminar 1: Chapters 2 to 6 (Read as much as you can)

Seminar 2: Chapters 2 to 6 (Complete the reading)

Additional reading

IRP (2017). *Assessing global resource use: A systems approach to resource efficiency and pollution reduction*. Bringezu, S., et al.

EEA (2010) The European Environment – State and Outlook 2010 Consumption and the Environment. https://www.eea.europa.eu/publications/consumption-and-the-environment-2012

EEA (2017) update: https://www.eea.europa.eu/soer-2015/europe/consumption

Ivanova, D., Stadler, K., Steen-Olsen, K., Wood, R., Vita, G., Tukker, A., and E.G. Hertwich (2015) Environmental Impact Assessment of Household Consumption Journal of Industrial Ecology 20(3): 526-536.

UNEP (2014) Assessing Global Land Use: Balancing Consumption with Sustainable Supply. A Report of the Working Group on Land and Soils of the International Resource Panel. Bringezu S., Schütz H., Pengue W., O´Brien M., Garcia F., Sims R., Howarth R., Kauppi L., Swilling M., and Herrick J.