

Outline and references - How to think of ecological economics?

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Topics covered on 05.05.2022

1. Ecological v Environmental economics, weak and strong sustainability, link to introductory lecture on 10.03
2. **How to think of EE?**
 1. Sustainability: Planetary Boundaries + Fundamental human Needs, simplified “living well today and tomorrow”
 2. Systems, emerging properties, iceberg model, leverage points
 3. Scale: energy, minerals, biomass, pollution, space, water, ... ? Or growth, EROI?
3. **Foundations of EE**
 1. Linking Planetary Boundaries with Biodiversity and Ecosystem Services , extinction drivers, state, tipping points, soils, productive habitats; components of natural capital (Kn)
 2. Wellbeing - Needs - Satisfiers - Desires
4. **Implications**
 1. Energy needs, availability, physical limits, limits of markets
 2. Example: Climate action and reaching Net Zero
 3. From the political economy to economics and back
 4. Obstacles, power lock-ins: jobs, cars, competitiveness, growth
 5. Normative v descriptive (“positive”), don’t be afraid to state values and implications
5. **Action:** mindset, Universal Basic Services and the Foundational Economy, democracy

References

1. [Planetary boundaries: Guiding human development on a changing planet](#), Steffen et al 2015, [chart](#)
2. [Human Scale Development](#), Manfred A. Max-Neef 1991, [video](#)
3. [A Theory of Human Need](#), Len Doyal and Ian Gough 1991, [chart p.7](#)
4. [Thinking in Systems: A Primer](#), Donella Meadows 2009, [video](#)
5. [Leverage Points: Places to Intervene in a System](#), Donella Meadows, 1997
6. [Living Planet Report 2020](#), WWF
7. [Global primary energy by source](#) 1800-2019, Our World in Data
8. [Global material flows and circularity](#)
9. [Summary Report of the EAT-Lancet Commission](#), 2019
10. [Current global food production is sufficient to meet human nutritional needs in 2050 provided there is radical societal adaptation](#), Berners-Lee et al 2018
11. The Limits to Growth: The 30-Year Update, [book](#) (363 pp.), [synopsis](#), [video](#) (1')
12. [Roots, Riots, and Radical Change—A Road Less Travelled for Ecological Economics](#), Pirgmaier and Steinberger 2019
13. [Carbon removal, net zero, implications for Switzerland](#), Nick and Thalmann 2021
14. [Swiss Negative Emissions Fund – paying for Net Zero](#), Nick and Thalmann 2022
15. [Academic Citizens' Assembly](#)
16. [Universal Basic Services: A theoretical and moral framework](#), Ian Gough 2019
17. [The Foundational Economy](#)