

Ecological economics – Preliminary list of literature

(the final list will include about 500 pages)

Survey of challenges

M. Common and S. Stagl (2005): *Ecological Economics. An Introduction*, Ch. 2: The environment. In particular: section 2.3 (pp. 37-41) and section 2.3.3 (pp. 50-56) (45 p.)

J. Rockström et al. (2009): A safe operating space for humanity, *Nature* 461: 472-475 (4 p.)

You may see Rockström explain:

<http://www.youtube.com/watch?v=RgqtrlixYR4> 18 minutes show or

<http://www.youtube.com/watch?v=8dCU6jd-S9Y> 9 minutes whiteboard teaching

D.H. Meadows (2009): *Thinking in Systems. A Primer*, Ch. 3: Why systems work so well, and Ch. 4: Why systems surprise us, pp. 86-94 (9 p.)

S.R. Carpenter and C. Folke (2006): Ecology for transformation, *Trends in Ecology and Evolution* 21: 309-315 (7 p.)

C. Folke (2010): How much disturbance can a system withstand? With roots in ecology and complexity science, resilience theory offers new ways to turn crises into catalysts for innovation, *Seed Global Reset* January 7 (4 p.)

You may see Brian Walker explaining resilience:

<http://www.youtube.com/watch?v=tXLMel5nVQk>

(Something on Millenium Ecosystem Assessment)

(Something on collapse from environmental history)

(Potential authors / videos: Ponting, Tainter, Kaufmann, Diamond)

Energy and human history

M. Common and S. Stagl (2005): *Ecological Economics. An Introduction*, Ch. 3: Humans in the environment – some history (20 p.)

Demographic transition note

Colin Campbell (2013): Recognising the second half of the oil age. *Environmental Innovation and Societal Transitions* 9: 13-17.

C.A.S. Hall, S. Balogh and D.J.R. Murphy (2009): What is the minimum EROI that a sustainable society must have? *Energies* 2: 25-47. Read pp. 26-33 top (8 p.)

D.J. Murphy and C.A.S. Hall (2011): Energy return on investment, peak oil, and the end of economic growth, *Annals of the New York Academy of Sciences* 1219: 52-72. Read pp. 58 (Peak oil) – 67 (Incl. Summary of net energy) (10 p.)

S. Sorrell (2009): Jevons' Paradox revisited: The evidence for backfire from improved energy efficiency, *Energy Policy* 37: 1456-1469 (14 p.)

(Something on “energy cannibalism”, energy payback)

Social metabolism: operationalisation of scale

H. Haberl, K-H. Erb and F. Krausmann (2007): Human appropriation of net primary production (HANPP). In: *Internet Encyclopedia of Ecological Economics* (15 p.)

H. Haberl et al. (2009): Using embodied HANPP to analyze teleconnections in the global land system: Conceptual considerations, *Geografisk Tidsskrift – Danish Journal of Geography* 109: 119-130 (12 p.)

WWF: Living planet report 2010, pp. 32-54, 104-107 (27 p.)

Calculation methodology for the national footprint accounts, 2010 edition (do not bother with the formulas – just get the idea) (19 p.)

Eurostat (2001): Economy-wide material flow accounts and derived indicators. A methodological guide, pp. 15-26 (excluding 3.46-3.57) (11 p.)

M. Common and S. Stagl (2005): *Ecological Economics. An Introduction*, Input-output accounting, pp. 125-132 (8 p.)

F. Krausmann et al. (2009): Growth in global materials use, GDP and population during the 20th century, *Ecological Economics* 68: 2696-2705 (excluding section 2) (10 p.)

H. Haberl, M. Fischer-Kowalski, F. Krausmann, J. Martinez-Alier and V. Winiwarter (2011): A socio-metabolic transition towards sustainability? Challenges for another great transformation, *Sustainable Development* 19: 1-14 (14 p.)

Economics: mainstream and ecological economic perspectives

J. Gowdy and S. O'Hara (1995): *Economic Theory for Environmentalists*, Ch. 1: Introduction, and Ch. 6: Market failure: When prices are wrong (excluding pp. 111-113 top, Consumer surplus section) (31 p.)

Collection of figures from Turner et al. (1993): *Environmental Economics. An elementary introduction* (12 p.)

A. Vatn (2005): *Institutions and the Environment*, Section 1.2 + p. 25; Chapter 10: pp. 252-270 top (24 p.)

J. Allen, J. DuVander, I. Kubiszewski and E. Ostrom (2012): Institutions for managing ecosystem services, *Solutions* 6: 44-49 <http://www.thesolutionsjournal.com/node/1027> (6 p.)

Elinor Ostrom on Sustainable development and the tragedy of the commons:
<http://www.youtube.com/watch?v=ByXM47Ri1Kc>

(Something on the performativity of economics)

(Something on marketisation of resources in industrialised economies and potential counter-strategies)

Environmental conflicts

R.K. Turner, D. Pearce and I. Bateman (1993): *Environmental Economics. An elementary introduction*, Ch. 7: Cost-benefit thinking, and Ch. 8: Valuing concern for nature (36 p.)

A. Vatn (2005): *Institutions and the Environment*, Section 11.1: Value articulating institutions (3 p.)

I. Røpke (1999): Prices are not worth much, *Ecological Economics* 29: 45-46 (2 p.)

J. Martinez-Alier (2001): Ecological conflicts and valuation: mangroves versus shrimps in the late 1990s, *Environment and Planning C: Government and Policy* 19: 713-728 (16 p.)

or

G. Kallis, E. Gómez-Baggethun and C. Zografos (2013): To value or not to value? That is not the question, *Ecological Economics* 94 (2013): 97-105 (9 p.)

J. O'Neill and C.L. Spash (2000): Conceptions of value in environmental decision-making, EVE Policy Research Brief no. 4 (18 p.)

D.J. McCauley (2006): Selling out on nature, *Nature* 443: 27-28 (2 p.)

Ecological macroeconomics

R. Costanza et al. (1997): An Introduction to Ecological Economics, pp. 80-91 (12 p.)

H.E. Daly (2008): A Steady-State Economy, Sustainable Development Commission, UK (10 p.)

T. Jackson (2009): Prosperity without growth? The transition to a sustainable economy, Ch. 5 and 8-10 (38 p.)

or

T. Jackson and P. Victor (2013): Green Economy at Community Scale, Metcalf Foundation (68 p.)

S. Giljum and N. Eisenmenger (2004): North-South trade and the distribution of environmental goods and burdens: A biophysical perspective, *Journal of Environment & Development* 13: 73-100 (28 p.)

J. Schor (2005): Prices and quantities: Unsustainable consumption and the global economy, *Ecological Economics* 55: 309-320 (12 p.)

G. Kallis, C. Kerschner and J. Martinez-Alier (2012): The economics of degrowth, *Ecological Economics* 84: 172-180 (9 p.)

R.U. Ayres et al. (2013): Sustainability transition and economic growth enigma: Money or energy?, *Environmental Innovation and Societal Transitions* 9: 8-12 (5 p.)

(More on money and finance)