

FOUNDATIONS OF ECOLOGICAL ECONOMICS 2011-2012

Coordinator(s): Esteve Corbera

Lecturers: Jeroen van den Bergh, Esteve Corbera, Erik Gómez-Baggethun, Joan Martínez-Alier, and Jesús Ramos-Martin

Lectures' venue and time

ICTA, Aula Collserola, Tuesdays and Wednesdays 10:00-13:00 h

Lectures' topics and compulsory readings

1. Introduction to Ecological Economics

Date: 08/11/2011

Lecturer: Jeroen van den Bergh (JvdB)

van den Bergh, J.C.J.M. 2000. Ecological Economics: Themes, Approaches, and Differences with Environmental Economics. *Regional Environmental Change*, 3(1): 13-23.

Background reading: Martínez-Alier, J., Roca Jusmet, J. 2000. Economía Ecológica y Política Ambiental. PNUMA y Fondo de Cultura Económica.

2. Welfare, externalities and public goods

Date: 09/11/2011

Lecturer: JvdB

Kahn, J.R. 2004. *The Economic Approach to Environmental and Natural Resources*. 3rd edition, Thomson/South-Western, Fort Worth, Mason, Ohio. ch. 2; & ch. 4, section "What is Value".

Verhoef, E.T. 1999. Externalities. Chapter 13 in: J.C. J.M. van den Bergh (ed.). *Handbook of Environmental and Resource Economics*. Edward Elgar, Cheltenham, pp. 197-214.

3. Choice of environmental policy instruments

Date: 15/11/2011

Lecturer: JvdB

Russell, C.S., Powell, P.T. 1999. Practical considerations and comparison of instruments of environmental policy. Chapter 21 in: J.C.J.M. van den Bergh (ed.). *Handbook of Environmental and Resource Economics*. Edward Elgar, Cheltenham, pp. 307-328.

Background reading: Sterner, T. 2003. *Policy Instruments for Environmental and Natural Resource Management*. Resources for the Future (RFF Press), Washington D.C., USA, 504 pages.

4. Spatial sustainability and ecological footprint

Date: 16/11/2011

Lecturer: JvdB

Grazi, F., van den Bergh, J., Rietveld, P. 2007. Spatial welfare economics versus ecological footprint: Modeling agglomeration, externalities and trade. *Environmental and Resource Economics*, 38: 135-153.

van den Bergh, J., Verbruggen, H. 1999. Spatial sustainability, trade and indicators: an evaluation of the 'ecological footprint', *Ecological Economics* 29(1): 63-74.

5. Complexity and self-organisation: the evolution of societies

Date: 22/11/2011

Lecturer: Jesús Ramos-Martin

Schneider, E.D., Kay, J. J. 1994. Life as a manifestation of the second law of thermodynamics, *Mathematical and Computer Modelling*, 19(6-8): 25-48.

Tainter, J.A. 2011. Energy, complexity, and sustainability: A historical perspective, *Environmental Innovations and Societal Transitions*, 1(1): 89-95.

6. Multi-Scale Integrated Assessment of Societal and Ecosystem Metabolism

Date: 23/11/2011

Lecturer: Jesús Ramos-Martin

Giampietro, M., Mayumi, K., and Ramos-Martin, J. 2009. Multi-scale integrated analysis of societal and eco system metabolism (MuSIASEM): Theoretical concepts and basic rationale. *Energy*, 34(3): 313-322. <http://dx.doi.org/10.1016/j.energy.2008.07.020>

Ramos-Martín, J., Cañellas-Boltà, S., Giampietro, M., Gamboa, G. 2009. Catalonia's energy metabolism: using the MuSIASEM approach at different scales. *Energy Policy*, 37(11): 4658-4671.

7. Institutions for environmental governance

Date: 30/11/2011

Lecturer: Erik Gómez-Baggethun

Hardin, G., 1968. The tragedy of the commons. *Science*, 162: 1243-1248.

Aguilera-Klink, F. 1994. Some notes on the misuse of classic writings in economics on the subject of common property. *Ecological Economics*, 9 (3): 221-228.

8. Property regimes and access theory

Date: 01/12/2011

Lecturer: Esteve Corbera

Feeny, D., Berkes, F., McCay, B.J., Acheson, J.M. 1990. The tragedy of the commons - 22 years later. *Human Ecology*, 18: 1-19.

Ribot, J., Peluso, N. 2003. A Theory of Access. *Rural Sociology*, 68(2): 153-181.

9. Social metabolism, environmental conflicts and valuation languages

Date: 13/12/2011

Lecturer: Joan Martínez-Alier

Martinez-Alier, J. 2009. Social metabolism, Ecological Distribution Conflicts and Languages of Valuation, *Capitalism, Nature, Socialism* 20(1), 58-87.

Martinez-Alier, J., Kallis, G., Veuthey, S., Walter, M., Temper, L. 2010. Social Metabolism, Ecological Distribution Conflicts, and Valuation Languages. *Ecological Economics* 70(2), 153-158.

10. Integrated assessment of ecosystem services

Date: 14/12/2011

Lecturer: Erik Gómez-Baggethun

De Groot, R.S., Wilson, M., Boumans, R., 2002. A typology for the description, classification and valuation of ecosystem functions, goods and services. *Ecological Economics*, 41(3): 393-408.

Gómez-Baggethun, E., de Groot, R., Lomas, P., Montes, C., 2010. The history of ecosystem services in economic theory and practice: from early notions to markets and payment schemes. *Ecological Economics*, 69: 1209-1218.

11. Economic valuation and incommensurability of values

Date: 20/12/2011

Lecturer: Erik Gómez-Baggethun

Gómez-Baggethun, E., Ruiz-Pérez, M. 2011. Economic valuation and the commodification of ecosystem services. *Progress in Physical Geography*, 35: 617 - 632.

Martinez-Alier, J., Munda, J., O'Neill, J. 1998. Weak comparability of values as a foundation for ecological economics. *Ecological Economics*, 26: 277–286.

12. Payments for ecosystem services at multiple scales

Date: 21/12/2011

Lecturer: Esteve Corbera

Kosoy, N., Corbera, E. 2010. Payments for ecosystem services as commodity fetishism. *Ecological Economics* 69: 1228-1236.

Muradian, R., Corbera, E., Pascual, U., Kosoy, N., May, P. 2010. Reconciling theory and practice: An alternative conceptual framework for understanding payments for environmental services. *Ecological Economics* 69: 1202-1208.

13. Environmental liabilities

Date: 10/01/2012

Lecturer: Joan Martinez-Alier

Martinez-Alier, J. 2011 Environmental liabilities: the Chevron Texaco case in Ecuador, <http://webcolleges.uva.nl/mediasite/Viewer/?peid=a45f66d76ee44133bb4df640345642f11d>

Srinivasan, U., et al. 2008, The debt of nations and the distribution of ecological impacts from human activities. *Proceedings of the National Academy of Sciences*, 105(5): 1768–1773.

14. Climate policy economics

Date: 11/01/2012

Lecturer: JvdB

McKibbin, W.J., Wilcoxon, P.J. 2002. The role of economics in climate change policy. *Journal of Economic Perspectives* 16(2): 107-129.

Executive summary of The Stern review: *The Economics of Climate Change* (2006).
http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/30_10_06_exec_sum.pdf

Responses to / debate on the Stern review (<http://www.hm-treasury.gov.uk/6520.htm>).

15. Energy policy and the rebound effect

Date: 17/01/2012

Lecturer: JvdB

van den Bergh, J.C.J.M. 2011. Energy conservation more effective with rebound policy. *Environmental and Resource Economics* 48(1): 43-58.

Dimitropoulos, J. (2007). Energy productivity improvements and the rebound effect: An overview of the state of knowledge. *Energy Policy* 35(12): 6354-6363.

16. Environmental innovation and societal transitions

Date: 18/01/2012

Lecturer: JvdB

Opening issue (free access) of new journal with the same name (notably its first article).
<http://www.sciencedirect.com/science/journal/22104224/1/1>

Geels, F.W. 2002. Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study. *Research Policy*, 31: 1257-1274.

17. The growth debate

Date: 24/01/2012

Lecturer: JvdB

Beckerman, W. 1992. Economic growth and the environment. *World Development*, 20(4): 481-496.

Daly, H.E. 2005. Economics in a full world. *Scientific American* 293(3).

van den Bergh, J.C.J.M., de Mooij, R. 2002. Growth and the environment in Europe: a guide to the debate. *Empirica*, 29: 79-91.

18. Invited Guest Speaker (to be announced) and/or Open Discussion with all lecturers

Date: 25/01/2012

19. FINAL EXAM

Date: 31/01/2012