

DEPARTMENT OF ECONOMICS
COLORADO STATE UNIVERSITY

ECON 792E: Natural Resources and Economic Development

Fall 2017, TR 12:30 PM – 13:45 PM, 110 Eddy

Professor Edward B. Barbier

Contact

Office: C315 Clark Building

Phone: 970-491-3321

Fax: 970-491-2925 (shared machine; please include my name and class number)

Email: edward.barbier@colostate.edu

Webpage: <http://www.edwardbbarbier.com/>

Office Hours

TR 10:00 AM – 11:30 AM, or by appointment

Course Website

Available at <http://canvas.colostate.edu>

Make sure that your email is set to receive announcements from this system. In the uncommon circumstances that I have to cancel regular class or office hours, I will announce this through the course website. University weather closures are announced via the University alert system.

Course Description

This course focuses on a key paradox of modern economic development: Why is it that, despite the importance of natural capital for sustainable economic development, increasing economic dependence on natural resource exploitation appears to be a hindrance to growth and development in today's low and middle-income economies? To address this paradox this course focuses on the role of natural resources in economic development of developing countries, covering both macro-economic and micro-economic aspects of this relationship. It is designed as a graduate-level seminar course, and aims to give students a sense of current theories, debates, historical perspectives and methodologies concerning natural resources and economic development.

Prerequisites

It is presumed that students taking the course have completed graduate-level micro and macro course sequence in economics, or equivalent.

Learning Objectives

The main aim of this course is to encourage graduate students to become familiar with recent advances in theoretical and empirical analyses of natural resources and economic development through learning to read, critically evaluate, and hopefully begin developing, analytical contributions to these areas. The first part of the course will involve the instructor introducing the students to the topics through selecting key articles and readings to critically evaluate. This will take place through both lectures and group discussion. The final part of the course will

involve student-led seminars based on the course topics. Each seminar will consist of both a paper presentation as well as a group discussion of the material presented.

Grading and Course Requirements

The academic requirements of this course consist of a final examination at the end of the semester and two seminar papers and presentations. **The exam will count for 40% of your final grade, and each seminar paper and presentation will count for 30%** (20% for the paper and 10% for the presentation). All grading will be done on a standard point system and not curved.

The final examination will be based on the required reading indicated under each topic, and in particular the material introduced in class during the first part of the course.

For the first seminar presentation and paper, each student will have to choose a published paper relevant to any one of the course topics, explain the methodology and results, critically evaluate the modelling approach of the paper, and finally, suggest briefly a possible extension or reformulation of the model. For the second seminar presentation and paper, the student will attempt to develop further the suggested extension or reformulation of the model into his or own paper on the selected topic, and explain the possible contribution of this approach to the literature.

The distribution of seminar topics among students will be agreed by **September 7**. Although not all topics need to be covered, a broad spectrum of seminar topics will be the aim.

On the day of the student's first seminar the student should hand out to the class a version of the first paper. However, the deadline for all students to submit a final version of the first seminar paper is **November 2**. The student should also be prepared to hand out a version of their second paper on the day of that seminar. However, the deadline for all students to submit a final version of the second seminar paper is **December 7**.

The final examination is scheduled to be held on **Wednesday December 13 6:20 pm to 8:20 pm** (See <http://registrar.colostate.edu/academic-resources/final-exams/>).

Contact Hours and Expectations for Work Outside of Instructional Time

To be successful, each week students are expected to spend approximately three hours in lecture, and at least six hours engaging in activities including reading the texts and journal references, reviewing class notes, and researching and preparing the two seminar assignments. Preparation for the final exam will involve additional review and studying of course material at the end of the semester.

Policy on Course Attendance

You are expected to be present in class and are responsible for the material covered whether or not it is also posted online. If you miss class, it is your responsibility to inform me in advance, or in case of an emergency, as soon as possible afterwards. You are also expected to find out from your classmates what you have missed and obtain relevant notes and any in-class materials from them. As per University policy, students are exempted from attending class for University

sanctioned activities with appropriate official documentation. In general, with evidence of sanctioned activity, you may be able to arrange to turn in materials early.

Other Course Policies

Disruptive behavior is not tolerated and is grounds for being asked to leave. This includes the use of cell phones, reading newspapers, and accessing any other unrelated material in class. Offensive or threatening treatment of an individual is especially not tolerated. Disruptive students will be referred to University officials. In general, I will expect that you be respectful of me and your classmates, and that you will take the course seriously.

Departmental Statement on Copyright

Please do not share material from this course in online, print or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in this course are also subject to copyright protection. Posting course materials on external online sites (commercial or not) violates both copyright law and the CSU Student Contact Code. Students who share course content without the instructor's express permission, including with online sites that post materials so sell to other students, could face disciplinary or legal action. This includes seminar papers and presentation, or any final exam questions and answers.

Academic Integrity

This course will adhere to the CSU Academic Integrity Policy as found on the Student Responsibilities page of the CSU General Catalog and in the Student Conduct Code. At a minimum, violations will result in a grading penalty in this course and a report to the Office of Conflict Resolution and Student Conduct Services.

As per University policy, "Any student found responsible for having engaged in academic misconduct will be subject to academic penalty and and/or University disciplinary action" (General Catalog, <http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/>). As such, any academic dishonesty in this course may result in a grade of "F" for the course and may be reported to the Office of Conflict Resolution and Student Conduct Services. Please be aware that the General Catalog specifically identifies the following examples of academic dishonesty: cheating, plagiarism, unauthorized possession or disposition of academic materials, falsification, and facilitation of cases of academic dishonesty. Plagiarism is defined as follows: "Plagiarism includes the copying of language, structure, images, ideas, or thoughts of another, and representing them as one's own without proper acknowledgement and is related only to work submitted for credit; the failure to cite sources properly; sources must always be appropriately referenced, whether the source is printed, electronic or spoken. Examples include a submission of purchased research papers or homework as one's own work; paraphrasing and/or quoting material without properly documenting the source" (General Catalog, <http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/>).

Accommodations

Students requesting special accommodations should contact Resources for Disabled Students (RDS) at 970-491-6385. Accommodations for exams will not be granted without pre-approval from RDS. If this applies to you, please make arrangements immediately.

Title IX

CSU's Discrimination, Harassment, Sexual Harassment, Sexual Misconduct, Domestic Violence, Dating Violence, Stalking, and Retaliation Policy designates faculty and employees of the University as "Responsible Employees". This designation is consistent with federal law and guidance, and requires faculty to report information regarding students who may have experienced any form of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation. This includes information shared with faculty in person, electronic communications or in class assignments. A "Responsible Employees", faculty may refer students to campus resources (see below), together with informing the Office of Support and Safety Assessment to help ensure student safety and welfare. Information regarding sexual harassment, sexual misconduct, relationship violence, stalking or retaliation is treated with greatest degree of confidentiality possible while also ensuring student and campus safety.

Any student who may be the victim of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation is encouraged to report to CSU through one or more of the following resources: Emergency Response 911, Deputy Title IX Coordinator/Office of Support and Safety Assessment 970-491-1350, CSU Police Department (non-emergency) 970-491-6425. For counseling support and assistance, please see the CSU Health Network, which includes a variety of counseling services that can be accessed at <http://www.health.colostate.edu/>. The Sexual Assault Victim Assistance Team is a confidential student resource that does not have a reporting requirement: <http://www.wgac.colostate.edu/need-help-support/>.

Course Readings

The course is organized around a set of key topics in natural resources and economic development. There is a single text for this course. In addition, each topic will contain a number of core readings selected from key journal articles and book chapters, which students are expected to read.

The required text for this course is:

Edward B. Barbier. 2007. *Natural Resources and Economic Development*. Cambridge University Press, New York.

For a long-run treatment of growth, natural resources and development, **but not a required text for this course**, see:

Edward B. Barbier. 2011. *Scarcity and Frontiers: How Economies Have Developed Through Natural Resource Exploitation*. Cambridge University Press, New York.

Course Outline

The following topics form the basis of the course. Under each topic is a list of **core readings** that each student is required to read. The lectures and group discussions in the first part of this course will be drawn from these readings. Students should have read these course readings in advance and be prepared to discuss them in class.

The **suggested readings** under each topic indicate the type of papers that each student might select for the first seminar paper and presentation. The student does not have to choose one of these papers, but is encouraged to pick a paper that is related to this literature. Any paper chosen for a student's seminar that is not on this list needs to be agreed in advance with the instructor.

Lecture and Seminar Topics

1. Natural Resources and Developing Countries: Overview and Historical Perspectives

Core readings:

Barbier, *op. cit.*, ch. 1-2

Findlay, R. and M. Lundahl. 1994. "Natural Resources, 'Vent-for-Surplus', and the Staples Theory." In G. Meier, ed. *From Classical Economics to Development Economics: Essays in Honor of Hla Myint*. St. Martin's Press, New York, pp. 68-93.

Suggested readings:

Ashraf, Q. and O. Galor. 2011. "Dynamics and Stagnation in the Malthusian Epoch." *American Economic Review* 101:2003-2041.

Baldwin, R.E. 2001. "Global Income Divergence, Trade, and Industrialization: The Geography of Growth Take-Offs." *Journal of Economic Growth* 6:5-37.

Desmet, K. and S.L. Parente. 2012. "The evolution of markets and the revolution of industry: a unified theory of growth." *Journal of Economic Growth* 17:205-234.

Drelichman, M. 2005. "All That Glitters: Precious Metals, Rent Seeking and the Decline of Spain." *European Review of Economic History* 9:313-336.

Findlay, R. 1993. "The 'Triangular Trade' and the Atlantic Economy of the Eighteenth Century: A Simple General-Equilibrium Model." In R. Findlay, ed. *Trade, Development and Political Economy: Essays of Ronald Findlay*. Edward Elgar, London, pp. 321-351.

Galor, O. and D.N. Weil. 2000. "Population, Technology and Growth: From Malthusian Stagnation to The Demographic Transition and Beyond." *American Economic Review* 90(4):806-828.

Galor, O. and O. Moav. 2002. "Natural Selection and the Origin of Economic Growth." *Quarterly Journal of Economics* 117(4):1133-1191.

- Galor, O. and Ö. Özak. 2016. "The Agricultural Origins of Time Preference." *American Economic Review* 100(10):3064-3103.
- Good, D.H. and R. Reuveny. 2009. "On the Collapse of Historical Civilizations." *American Journal of Agricultural Economics* 91:863-879.
- Hansen, B. 1979. "Colonial Economic Development with Unlimited Supply of Land: A Ricardian Case." *Economic Development and Cultural Change* 27:611-627.
- Hansen, G.D. and E.C. Prescott. 2002. "Malthus to Solow." *American Economic Review* 92(4):1205-1217.
- Iyigun, M. 2005. "Geography, Demography and Early Development." *Journal of Population Economics* 18:301-321.
- Kögel, T. and A. Prskawetz. 2001. "Agricultural Productivity, Growth and Escape from the Malthusian Trap." *Journal of Economic Growth* 6:337-357.
- Lagerlöf, N-P. 2009. "Slavery and Other Property Rights." *Review of Economic Studies* 76:319-342.
- Lagerlöf, N-P. 2014. "Population, technology and fragmentation: The European miracle revisited." *Journal of Development Economics* 108:87-105.
- Madsen, J.B., J.B. Ang and R. Banerjee. 2010. "Four centuries of British economic growth: the role of technology and population." *Journal of Economic Growth* 15:263-290.
- McDermott, J. 2002. "Development Dynamics: Economic Integration and the Demographic Transition." *Journal of Economic Growth* 7:371-409.
- Nunn, N. 2007. "Historical Legacies: A Model Linking Africa's Past to Its Current Underdevelopment." *Journal of Development Economics* 83:157-175.
- Ni, S. and P.H. Van. 2006. "High Corruption Income in Ming and Qing China." *Journal of Development Economics* 81:316-336.
- Olsson, O. and D.A. Hibbs, J. 2005. "Biogeography and Long-Run Economic Development." *European Economic Review* 49:909 - 938.
- O'Rourke, K.H., A.S. Rahman and A.M. Taylor. 2013. "Luddites, the industrial revolution, and the demographic transition." *Journal of Economic Growth* 18:373-409.

2. Dualism and Development: The Role of Natural Resources

Core readings:

Barbier, E.B. *op. cit.*, ch. 3-4

Krugman, P.R. 1981. "Trade, Accumulation, and Uneven Development." *Journal of Development Economics* 8:149-161.

Rune Skarstein. 1997. *Development Theory: A Guide to Some Unfashionable Perspectives*. Oxford University Press, New Delhi, ch. 6 and 7.

Barbier, E.B. 2014. "Land use and sustainable economic development: Developing World. Chapter 6 in J.M. Duke and J. Wu (eds.). *The Oxford Handbook of Land Economics*. Oxford University Press, Oxford and New York, pp. 139-159.

Suggested readings:

Alvarez-Cuadrado, F. and M. Poschke. 2011. "Structural Change out of Agriculture: Labor Push versus Labor Pull." *American Economic Journal: Macroeconomics* 3:127-158.

Banerjee, A.V. and A.F. Newman. 1998. "Information, the Dual Economy, and Development." *Review of Economic Studies* 65:631-653.

Barbier, E.B. 2014. "Structural change, marginal land and economic development in Latin America and the Caribbean" *Latin American Economic Review* 23(3):1-29, DOI 10.1007/s40503-014-0003-5.

Barbier, E.B. and M. Rauscher. 2007. "Trade and Development in a Labor-Surplus Economy" *The B.E. Journal of Economic Analysis & Policy*: Vol. 7: Issue 1 (Topics)
<http://www.bepress.com/bejeap/vol7/iss1/1>

Buffie, E.F. 1993. "Direct Foreign Investment, Crowding Out, and Underemployment in the Dualistic Economy." *Oxford Economic Papers* 45:639-667.

Burgstaller, A. and N. Saavedra Rivano. 1984. "Capital Mobility and Growth in a North-South Model." *Journal of Development Economics* 15:213-237.

Conning, J.H. and J.R. Robinson. 2007. "Property Rights and the Political Organization of Agriculture." *Journal of Development Economics* 82:416-447.

Feenstra, R.C. 1996. "Trade and Uneven Growth." *Journal of Development Economics* 49(1):229-256.

Findlay, R. 1993. "North-South Models and the Evolution of Global Interdependence." In Findlay, R. *Trade, Development and Political Economy: Selected Essays of Ronald Findlay*. Edward Elgar, Aldershot, UK, pp. 270-287.

Gollin, D. and R. Roberson. 2014. "Productivity, transport costs and subsistence agriculture." *Journal of Development Economics* 107:38-48.

Loayza, N.V. 1996. "The economics of the informal sector: a simple model and some empirical evidence from Latin America." *Carnegie-Rochester Conference Series on Public Policy*: 129-162.

Mourmouras, A. and P. Rangazas. 2009. "Reconciling Kuznets and Habbakuk in a unified growth theory." *Journal of Economic Growth* 14:149-181.

Pi, J. and Y. Zhou. "Rural Property Rights, Migration, and Welfare in Developing Countries." 2015. *B.E. Journal of Economic Analysis and Policy* 15(3): 997–1029.

Proto, E. "Land and the Transition from a Dual to a Modern Economy." *Journal of Development Economics* 83:88-108.

Shifa, A.B. 2013. "The dual policy in the dual economy – The political economy of urban bias in dictatorial regimes." *Journal of Development Economics* 105:77-85.

Temple, J. 2005. "Dual Economy Models: A Primer for Growth Economists." *The Manchester School* 73(4):435-478.

Vollrath, D. 2009. "The dual economy in long-run development." *Journal of Economic Growth* 14:287-312.

Vollrath, D. 2011. "The agricultural basis of comparative development." *Journal of Economic Growth* 16:343-370

Yuki, K. 2007. Urbanization, informal sector and development. *Journal of Development Economics* 84:76-103.

3. Explaining Land Use Change in Developing Countries

Core readings:

Barbier, *op. cit.*, ch. 5-6

Karras, G. 2010. "Land and population growth in the Solow model: Some empirical evidence." *Economics Letters* 109:66-68.

Suggested readings:

Abdulai, A., V. Owusu and R. Goetz. 2011. "Land Tenure Differences and Investment in Land Improvement: Theoretical and Empirical Analyses." *Journal of Development Economics* 96:66-78.

- Alix-Garcia, J. 2007. "A spatial analysis of common property deforestation," *Journal of Environmental Economics and Management* 53:141-157.
- Amacher, G.S., E. Koskela and M. Ollikainen. 2009. "Deforestation and Land Use under Insecure Property Rights." *Environment and Development Economics* 14(3):281-304.
- Amacher, G.S. M. Ollikainen and E. Koskela. 2012. "Corruption and forest concessions." *Journal of Environmental Economics and Management* 63:92-104.
- Barbier, E.B., P. Delacote and J. Wolfersberger. 2017. "The Economic Analysis of the Forest Transition: A Review." *Journal of Forest Economics* 27:10-17.
- Barbier, E.B. and A. Tesfaw. 2013. "Tenure Constraints and Carbon Forestry in Africa." *American Journal of Agricultural Economics* 95: 964-975.
- Besley, T. 1995. "Property Rights and Investment Incentives." *Journal of Political Economy* 103(5):903-937.
- Carter, M.R. and P. Olinto. 2003. "Getting Institutions 'Right' for Whom? Credit Constraints and the Impacts of Property Rights on the Quantity and Composition of Investment." *American Journal of Agricultural Economics* 85(1):173-186.
- Coxhead, I. G. Shively and X. Shuai. 2002. "Development Policies, Resource Constraints, and Agricultural Expansion on the Philippine Land Frontier." *Environment and Development Economics* 7(2):341-364.
- Eskander, S.M. and E.B. Barbier. 2017. "Tenure Security, Human Capital and Soil Conservation in an Overlapping Generation Rural Economy." *Ecological Economics* 135:176-185.
- Grepperud, S. 1997. "Soil Conservation as an Investment in Land." *Journal of Development Economics* 54:455-467.
- Hotte, L. 2001. "Conflicts over property rights and natural resource exploitation at the frontier." *Journal of Development Economics* 66:1-21.
- Hotte, L. 2005. "Natural-resource exploitation with costly enforcement of property rights." *Oxford Economic Papers* 57:497-521.
- Kuusela, O.-P. and G. Amacher. 2016. "Changing Political Regimes and Tropical Deforestation." *Environmental and Resource Economics* 64:445-463.
- López, R. 1998. "Agricultural Intensification, Common Property Resources and the Farm Household." *Environmental and Resource Economics* 11(3-4):443-458.

Ollivier, H. 2012. "Growth, Deforestation and the Efficiency of the REDD Mechanism." *Journal of Environmental Economics and Management* 64:312-327.

Pascual, U. and E.B. Barbier. 2006. "Deprived Land-Use Intensification in Shifting Cultivation: The Population Pressure Hypothesis Revisited." *Agricultural Economics* 34:155-165.

Pascual, U. and E.B. Barbier. 2007. "On Price Liberalization, Poverty and Shifting Cultivation: An Example from Mexico." *Land Economics* 83(2):192-216.

Place, F. and K. Ostuka. 2001. "Population, Tenure, and Natural Resource Management: The Case of Customary Land Area in Malawi." *Journal of Environmental Economics and Management* 41(1):13-32.

Robalino, J.A. 2007. "Land Conservation Policies and Income Distribution: Who Bears the Burden of Our Environmental Efforts?" *Environment and Development Economics* 12(4):521-534.

Shively, G.E. 2001. "Agricultural Change, Rural Labor Markets, and Forest Clearing: An Illustrative Case from the Philippines." *Land Economics* 77(2):268-284.

Tachibana, T., T.M. Nguyen and K. Otsuka. 2001. "Agricultural Intensification versus Extensification: A Case Study of Deforestation in the Northern-Hill Region of Vietnam." *Journal of Environmental Economics and Management* 41(1):44-69.

Takasaki, Y. 2007. "Dynamic Household Models of Forest Clearing under Distinct Land and Labor Market Institutions: Can Agricultural Policies Reduce Tropical Deforestation?" *Environment and Development Economics* 12(3):423-444.

4. Does Water Availability Constrain Economic Development?

Core readings:

Barbier, *op. cit.*, ch. 7

Barbier, E.B. 2015. "Water and Growth in Developing Countries." Chapter 25 in A. Dinar and K. Schwabe (eds.), *Handbook of Water Economics*, Edward Edgar Cheltenham, U.K., pp. 500-512.

Suggested readings:

Acharya, G. and Barbier, E.B. 2002. "Using Domestic Water Analysis to Value Groundwater Recharge in the Hadejia-Jama'are Floodplain, Northern Nigeria," *American Journal of Agricultural Economics*, 84(2):415-426.

Barbier, E.B. and A.M. Chaudhry. 2014. "Urban growth and water." *Water Resources and Economics* 6:1-17.

Barbier, E.B. 2003. "Upstream Dams and Downstream Water Allocation - The Case of the Hadejia-Jama'are Floodplain, Northern Nigeria," *Water Resources Research* 39(11):1311-1319.

Bekele, W. 2005. "Stochastic Dominance Analysis of Soil and Water Conservation in Subsistence Crop Production in the Eastern Ethiopian Highlands: The Case of the Hunde-Lafto Area." *Environmental and Resource Economics* 32(4):533-550.

Bhaduri, A. and Barbier, E.B. 2008. "Political Altruism of Transboundary Water Sharing." *The B.E. Journal of Economic Analysis & Policy* Vol. 8: Iss. 1 (Topics), Article 32.
<http://www.bepress.com/bejeap/vol8/iss1/art32>

Bhaduri, A. and Barbier, E.B. 2008. "International Water Transfer and Sharing: The Case of the Ganges River." *Environment and Development Economics* 13(1):29-52.

Bhaduri, A., Manna, U., Barbier, E.B. Liebe, J. 2011. "Climate Change and Cooperation in Transboundary Water Sharing: An Application of Stochastic Stackelberg Differential Games in Volta River Basin" *Natural Resource Modeling* 24(4):409-444.

El Khanji, S. and J. Hudson. 2016. "Water utilization and water quality in endogenous economic growth." *Environment and Development Economics* 21:626-648.

Esteban, E. and A. Dinar. 2016. "The Role of Groundwater-Dependent Ecosystems in Groundwater Management." *Natural Resource Modeling* 29:98-129.

Fernandez, L. 2009. "Wastewater Pollution Abatement across an International Border." *Environment and Development Economics* 14(1):67-88.

Fernandez, L. 2013. "Transboundary water institutions in action." *Water Resources and Economics* 1:20-35.

Reimer, J. 2012. "On the economics of virtual water trade." *Ecological Economics* 75:135-139.

5. Poverty-Environment Traps

Core readings:

Barbier, *op. cit.*, ch. 8

Barbier, Edward B. 2010. "Poverty, development and environment." *Environment and Development Economics* 15:635-660.

Kraay, Aart. and David McKenzie. 2014. "Do poverty traps exist? Assessing the evidence." *Journal of Economic Perspectives* 28:127-148.

Suggested readings:

Barbier, E.B., R.E. López and J.P. Hochard. 2016. "Debt, Poverty and Resource Management in a Rural Smallholder Economy." *Environmental and Resource Economics* 63:411-427.

Barrett, C.B. 2008. "Smallholder market participation: Concepts and evidence from eastern and southern Africa." *Food Policy* 33:299-317.

Battacharya, H. and R. Innes. 2013. "Income and the Environment in Rural India: Is There a Poverty Trap?" *American Journal of Agricultural Economics*. 95(1):42-69.

Carter, M.R. and C.B. Barrett. 2006. The economics of poverty traps and persistent poverty: an asset-based approach. *Journal of Development Studies* 42:178-199.

Carter, M.R., P.D. Little, T. Moguees and W. Negatu. 2007. Poverty traps and natural disasters in Ethiopia and Honduras. *World Development* 35:835-856.

Ghatak, M. 2015. "Theories of poverty traps and anti-poverty policies." *The World Bank Economic Review* 29 (suppl 1): S77-S105.

Jalan, J. and M. Ravallion. 2002. "Geographic Poverty Traps? A Micro Model of Consumption Growth in Rural China." *Journal of Applied Econometrics* 17:329-346.

Renkow, M., D.G. Hallstrom and D.D. Karanja. 2004. "Rural infrastructure, transaction costs and market participation in Kenya." *Journal of Development Economics* 73:349-367.

Steger, T. 2000. "Economic growth with subsistence consumption." *Journal of Development Economics* 62:343-361."

Strulik, H. 2012. "Poverty, voracity and growth." *Journal of Development Economics* 97:396-403.

6. Natural-Resource Based Development, Trade and Growth**Core readings:**

Barbier, *op. cit.*, ch. 3, 8 and 9

Matsuyama, K. 1992. "Agricultural Productivity, Comparative Advantage, and Economic Growth." *Journal of Economic Theory* 58:317-334.

Van der Ploeg, F., 2011. Natural resources: Curse or blessing?. *Journal of Economic Literature*, 49(2), pp.366-420.

Suggested readings:

Baland, J.-M. and P. Francois. 2000. "Rent-Seeking and Resource Booms." *Journal of Development Economics* 61:527-542.

Bahattacharyya, S. and R. Hodler. "Natural resources, democracy and corruption." *European Economic Review* 54:608-621.

Barbier, E.B., Damania, R. and Léonard, D. 2005. "Corruption, Trade and Resource Conversion" *Journal of Environmental Economics and Management* 50:276-299.

Barbier, E.B. 2010. "Corruption and the Political Economy of Resource-Based Development: A Comparison of Asia and Sub-Saharan Africa" *Environmental and Resource Economics* 46(4):511-537.

Bohn, H. and R. T. Deacon. 2000. "Ownership Risk, Investment, and the Use of Natural Resources." *American Economic Review* 90(3):526-549.

de V. Cavalcanti, T.V., K. Mohaddes and M. Raissi. 2011. "Growth, development and natural resources: New evidence using heterogeneous panel analysis. *The Quarterly Review of Economics and Finance* 51:305-318.

Dolores Guilló, M. and F. Perez-Sebastian. 2007. "The Curse and Blessing of Fixed Specific Factors in Small-Open Economies." *Journal of Development Economics* 82:58-78.

Eaton, J. 1988. "Foreign-Owned Land." *American Economic Review* 78(1):76-88.

Gylfason, T., T.T. Herbertsson and G. Zoega. 1999. "A Mixed Blessing: Natural Resources and Economic Growth." *Macroeconomic Dynamics* 3:204-225.

Long, N.V. and S. Wang. "Resource-grabbing by status-conscious agents." *Journal of Development Economics* 89:39-50.

López, R. 1997. "Environmental Externalities in Traditional Agriculture and the Impact of Trade Liberalization: The Case of Ghana." *Journal of Development Economics* 53:17-39.

López, R. and M. Schiff. 2013. "Interactive dynamics between natural and man-made assets: The impact of external shocks." *Journal of Development Economics* 104:1-15

Matsen, E., G.J. Natvik and R. Torvik. 2016. "Petro populism." *Journal of Development Economics* 118:1-12.

Mehlum, H., Moene, K. and R. Torvik. 2006. "Institutions and the Resource Curse." *Economic Journal* 116:1-20.

Morelli, M. and D. Rohner. 2015. "Resource concentration and civil war." *Journal of Development Economics*. 117:32-47.

Nugent, J.B. and J.A. Robinson. 2010. "Are Factor Endowments Fate?" *Journal of Iberian and Latin American History* 2845-82.

Peretto, P.F. 2012. "Resource abundance, growth and welfare: A Schumpeterian perspective." *Journal of Development Economics* 97:142-155.

Rodriguez, F. and Sachs, J.D. 1999. "Why Do Resource-Abundant Economies Grow More Slowly?" *Journal of Economic Growth* 4:277-303.

Schubert, S.F. and S.J. Turnovsky. 2011. "The impact of oil prices on an oil-importing developing economy." *Journal of Development Economics* 94:18-29

Strand, J. 1995. "Lending terms, debt concessions and developing countries' resource extraction." *Resource and Energy Economics* 17:99-117.

Strulik, H. 2008. "Geography, health, and the pace of demo-economic development." *Journal of Development Economics* 86:61-75.

Tornell, A. and P.R. Lane. 1998. "Are Windfalls a Curse? A Non-Representative Agent Model of the Current Account." *Journal of International Economics* 44:83-112.

Tornell, A. and P.R. Lane. 1999. "The Voracity Effect." *American Economic Review* 89:22-46.

Torvik, R. 2002. "Natural Resources, Rent Seeking and Welfare." *Journal of Development Economics* 67: 455-470.

van der Ploeg, F. 2010. "Why do many resource-rich developing countries have negative genuine saving? Anticipation of better times or rapacious rent seeking." *Resource and Energy Economics* 32:28-44.

van der Ploeg, F. and A.J. Venables. 2011. "Harnessing Windfall Revenues: Optimal Policies for Resource-Rich Developing Economies." *Economic Journal* 121:1-30.

Wood, A and C.l Ridao-Cano. 1999. "Skill, Trade and International Inequality." *Oxford Economic Papers* 51:89-119.

7. Can Natural-Resource Based Development Be Successful?

Core readings:

Barbier, *op. cit.*, ch. 10

Suggested readings:

Acemoglu, D., P. Aghion, L. Bursztyn, and D. Hemous. 2012. "The Environment and Directed Technical Change." *American Economic Review* 102(1): 131–66.

Agénor, P-R., N. Bayraktar and K. El Aynaoui. 2008. "Roads out of poverty? Assessing the links between aid, public investment, growth, and poverty reduction." *Journal of Development Economics* 86:277-295.

- Aidt., T. 2009. "Corruption, institutions, and economic development." *Oxford Review of Economic Policy*. 25(2):271-291.
- Aidt, T.S. and F. Alboranz. 2011. "Political regimes and foreign intervention." *Journal of Development Economics* 94:192-2011.
- Aidt, T., J. Dutta and V. Sena. 2008, "Governance regimes, corruption and growth: Theory and evidence." *Journal of Comparative Economics* 36:195-220.
- Auer, R.A. 2015. "Human capital and the dynamic effects of trade." *Journal of Development Economics* 117:107-118.
- Benhin, J.K.A. and Barbier, E.B. 2004. "Structural Adjustment Programme, Deforestation and Biodiversity Loss in Ghana." *Environmental and Resource Economics* 27:337-366.
- Cherniwchan, J. 2012. "Economic Growth, Industrialization, and the Environment." *Resource and Energy Economics* 34:442-467.
- Di Maria, C. and S. Valente. 2008. "Hicks Meets Hotelling: The Direction of Technical Change and Capital-Resource Economies." *Environment and Development Economics* 13(6):691-718.
- Frederiksen, E.H. 2008. "Spending Natural Resource Revenues in an Altruistic Growth Model." *Environment and Development Economics* 13(6):747-773.
- Hediger, W. 2009. "Sustainable Development with Stock Pollution." *Environment and Development Economics* 14:759-780.
- López, R. and S. Mitra. 2000. "Corruption, Pollution, and the Kuznets Environmental Curve." *Journal of Environmental Economics and Management* 40(2):137-150.
- López, R., G. Anríquez and S. Gulati. 2007., "Structural Change and Sustainable Development", *Journal of Environmental Economics and Management*, 53:307-322.
- Plante, M. 2014. "The long-run macroeconomic impacts of fuel subsidies." *Journal of Development Economics* 107:129-143.
- Robinson, J.A., R. Torvik and T. Verdier. 2006. "Political Foundations of the Resource Curse." *Journal of Development Economics* 79:447-468.
- Rodrik, D., A. Subramanian and F. Trebbi. 2004. "Institutions Rule: The Primacy of Institutions over Geography and Economic Integration in Economic Development." *Journal of Economic Growth* 9:131-165.
- Spilimbergo, A., J.L. Londoño, and M. Székely. 1999. "Income Distribution, Factor Endowments and Trade Openness." *Journal of Development Economics* 59:77-101.

Spinesi, L. 2009. Rent-seeking bureaucracies, inequality, and growth." *Journal of Development Economics* 90:244-257.

Torvik, R., 2002. Natural Resources Rent Seeking and Welfare, *Journal of Development Economics* 67:455-70.

van der Ploeg, F. 2011. "Rapacious Resource Depletion, Excessive Investment and Insecure Property Rights: A Puzzle." *Environmental and Resource Economics* 48:105-128.