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**SUSTAINABLE DEVELOPMENT
Theory & Policy**

Fall 2013

Professor Nazli Choucri
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Tuesdays from 1pm to 3pm
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OUTLINE

PART I CONTENT & CONTEXT

Week 1	Introduction—Debates, Definitions & Dilemmas	September 10
Week 2	Evolving Concepts: Growth vs. Sustainability	September 17
Week 3	Sustainability as a “Knowledge Domain”	September 24
Week 4	Cyberspace and Sustainability	October 1

PART II ACTORS, PROCESSES & INSTITUTIONS

Week 5	Critical Drivers—Social Mechanisms & Cognitive Factors	October 8
Week 6	Economic Activity—Production & Consumption	October 22
Week 7	Technology, Firms & Markets—Corporate Perspectives	October 29
Week 8	Climate Change & Sustainable Development	November 5
Week 9	From Sustainability “Problems” to “Solution” Strategies	November 12

PART III STRATEGIC ISSUES

Week 10	New International Institutional Contexts	November 19
Week 11	International Trade & Intellectual Property Rights	November 26
Week 12	International Processes	December 3
Week 13	Global Accord—Next Round	December 10

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

Fall 2013

List of Course Books

- MIT Coop (available for purchase)
- On Reserve at Dewey Library E53.

Choucri, Nazli. ed. 1995. *Global Accord: Environmental Challenges and International Responses*. Cambridge, Mass.: MIT Press.

Stavins, Robert N., ed. 2012. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company.

Tainter, Joseph A. 1988. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press.

Web Site Focusing on knowledge & representation of “sustainable development”. Site includes selective e-resources and materials, and recent research reports.

Global System for Sustainable Development
<http://gssd.mit.edu>

Required and Recommended Materials:

- Available on the Course Stellar-site
- **Please Note**
Chapters from the course books (listed above) are **not** reproduced on Course Stellar-site

Course Requirements:

- Class attendance participation 20%
 - Midterm (take home) 25%
 - Assignment 20%
 - Final (Take home) 35%
- or
Research paper on topic of your choice with approval of instructor

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(1) Introduction – Debates, Definitions, & Dilemmas

September 10, 2013

Required Reading

Solow, Robert M. 2012. "Sustainability: An Economist's Perspective," in Stavins, Robert N., ed. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 28.

Hardin, Garrett. 2005. "The Tragedy of the Commons," in Stavins, Robert N., ed. *Economics of the Environment*. 5th edition. New York: W. W. Norton & Company, Chapter 2.

Solow, Robert M. 1993. "The Economics of Resources or the Resources of Economics," in *The American Economic Review*, Vol 64, No. 2, Papers and Proceedings of the Eighty-sixth Annual Meeting of the American Economic Association, May 1974, 1-14.

Related Reading

Holdren, John P., Gretchen C. Daily, and Paul R. Ehrlich. 1995. "The Meaning of Sustainability: Biogeophysical Aspects," in Munasinghe, Mohan and Walter Shearer, eds, *Defining and Measuring Sustainability: The Biogeophysical Foundations*, Washington, D.C.: The World Bank, 3-17.

Goodland, Robert and George Ledec. 1987. "Neoclassical Economics and Principles of Sustainable Development." *Ecological Modeling* 38: 19-46.

Essential Reading

Tainter, Joseph A. 1988. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press, Chapter 1.

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(2) Evolving Concepts -- Growth vs. Sustainability

September 17, 2013

Required Reading

Choucri, Nazli. 1995. "Introduction: Theoretical, Empirical, and Policy Perspectives," in Choucri, Nazli ed. *Global Accord: Environmental Challenges and International Responses*. Cambridge, Mass.: MIT Press, 1-40.

Reboratti, Carlos E. 1999. "Territory, Scale and Sustainable Development," in Becker, Egon and Thomas Jahn, eds. 1999. *Sustainability and the Social Sciences: A Cross-Disciplinary Approach to Integrating Environmental Considerations into Theoretical Reorientation*. London: Zed Books. Chapter 11.

Pezzey, John C.V. and Michael A. Toman. 2002/2003. "Progress and problems in the economics of sustainability" in Tietenberg, Tom and Henk Folmers, eds. *The International Yearbook of Environmental and Resource Economics*. Edward Elgar: Northampton, Mass, USA. Chapter 4.

Related Reading

Hardin, Garrett. 1991. "Paramount Positions in Ecological Economics," in Robert Costanza, ed., *Ecological Economics: The Science and Management of Sustainability*, New York: Columbia University Press, 47-57.

Easterly, William. 2001. *The Elusive Quest for Growth*, Cambridge: The MIT Press. Chapter 8.

Essential Reading

Tainter, Joseph A. 1988. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press, Chapter 2.

Choucri, Nazli. 2007. "Mapping Sustainability: Logic and Framework." In Choucri, Nazli et al. eds. *Mapping Sustainability: Knowledge e-Networking and the Value Chain*. Cambridge: Springer Press, Chapter 1.

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(3) Sustainability as a “Knowledge Domain”

September 24, 2013

Required Reading

Allenby, Braden R. 1999. *Industrial Ecology: Policy Framework and Implementation*. New Jersey: Prentice-Hall, Chapter 3.

Christensen, Paul. 1991. “Driving Forces, Increasing Returns and Ecological Sustainability,” in Robert Costanza, ed., *Ecological Economics: The Science and Management of Sustainability*, New York: Columbia University Press, 75-87.

Simpson, R. David, 2005. “Economic Analysis and Ecosystems: Some Concepts and Issues,” in Stavins, Robert N., ed., *Economics of the Environment*, 5th edition, New York: W. W. Norton & Company, Chapter 25.

Choucri, Nazli, 2012. *Cyberpolitics in International Relations*. Cambridge, Mass.: MIT Press, Chapter 4.

Related Reading

Lofdahl, Corey L. 2002, *Environmental Impacts of Globalization and Trade*. Cambridge Mass.: MIT Press, Chapter 2.

Holling, C.S. 1995. “Sustainability: The Cross-Scale Dimension,” in Munasinghe, Mohan and Walter Shearer, eds., *Defining and Measuring Sustainability: The Biogeophysical Foundations*, Washington, D.C.: The World Bank, 65-75.

Sell, Susan K. 2013. “Revenge of the ‘Nerds’: Collective Action Against Intellectual Property Maximalism in the Global Information Age,” *International Studies Review* 15, 67-85.

Essential Reading

Tainter, Joseph A. 1988. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press, Chapter 3.

Sachs, Ignacy. 1999. “Social Sustainability and Whole Development: Exploring the Dimensions of Sustainable Development,” in Becker, Egon and Thomas Jahn, eds. *Sustainability and the Social Sciences: A Cross-Disciplinary Approach to Integrating Environmental Considerations into Theoretical Reorientation*. London: Zed Books. Chapter 2.

SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(4) Cyberspace & Sustainability

October 1, 2013

Required Reading

Drucker, Peter F. 1998. "From Capitalism to Knowledge Society" in Neef, Dale, ed. *The Knowledge Economy*. Butterworth-Heinemann, Chapter 2.

Choucri, Nazli, 2012. *Cyberpolitics in International Relations*. Cambridge, Mass.: MIT Press, Chapter 9.

Landes, David S. 1998. "Homo Faber, Homo Sapiens: Knowledge, Technology, Growth, and Development:" in Neef, Dale, ed. *The Knowledge Economy*. Butterworth-Heinemann, Chapter 5.

Ospina, Angelina Valeria and Heeks, Richard. 2010. *Unveiling the Links between ICTs & Climate Change in Developing Countries: A Scoping Study*", Center for Development Informatics, IDRC, Canada, 1-16.

Related Reading

Choucri, Nazli. 1999. "The Political Logic of Sustainability," in Becker, Egon and Thomas Jahn, eds. *Sustainability and the Social Sciences: A Cross-Disciplinary Approach to Integrating Environmental Considerations into Theoretical Reorientation*. London: Zed Books. Chapter 8.

Allenby, Braden R. 1999, *Industrial Ecology: Policy Framework and Implementation*. New Jersey: Prentice-Hall, Chapters 9.

Essential Reading

Tainter, Joseph A. 1988. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press, Chapter 4.

Choucri, Nazli. 2007. "Global Knowledge e-Networking: Identifying e-Barriers and Introducing GSSD," in Choucri, Nazli et al. eds. 2007. *Mapping Sustainability: Knowledge e-Networking and the Value Chain*. Cambridge: Springer Press, Chapter 2.

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(5) Critical Drivers, Social Mechanisms & Cognitive Factors

October 8, 2013

Required Reading

Engleman, Robert. et.al. 2005. "The Future is Not What it Used to Be," in Pirages, Dennis and Ken Cousins eds. *From Resource Scarcity to Ecological Security*. Cambridge, Mass.: MIT Press, 21-38.

Easterly, William. 2001. *The Elusive Quest for Growth*, Cambridge, Mass.: MIT Press, Chapter 11 and 12.

Related Reading

Choucri, Nazli. 1991. "Population and the Global Environment," in Tester, Jefferson W., David O. Wood, and Nancy A. Ferrari, eds., *Energy and the Environment in the 21st Century*, Cambridge, Mass.: MIT Press, 91-101.

Runci, Paul L. and Chester L. Cooper. 2005. "Reflections on an Aging Global Population", in Pirages, Dennis and Ken Cousins eds. *From Resource Scarcity to Ecological Security*. Cambridge: The MIT Press, 39-58.

Barzel, Yoram. 1997. *Economic Analysis of Property Rights*. 2nd ed. Cambridge: Cambridge University Press, Ch. 1 and 5

Essential Reading

Tester, Jefferson W. et. al. eds. 2005. *Sustainable Energy*. Cambridge MA.: The MIT Press. Chapters 1, 2, and 6.

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SUSTAINABLE DEVELOPMENT: THEORY POLICY

(6) Economic Performance – Production & Consumption

October 22, 2013

Required Reading

Gowdy, John. "Economic Concepts of Sustainability: Relocating Economic Activity within Society and Environment," in Becker, Egon and Thomas Jahn, eds. 1999. *Sustainability and the Social Sciences: A Cross-Disciplinary Approach to Integrating Environmental Considerations into Theoretical Reorientation*. London: Zed Books. Chapter 9.

Coase, Ronald. "The Problem of Social Cost," in Stavins, Robert N., ed. 2012. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 2.

Choucri, Nazli and Robert C. North. 1995. "Growth, Development, and Environmental Sustainability: Profile and Paradox," in Choucri, Nazli, ed. *Global Accord: Environmental Challenges and International Responses*, Cambridge, Mass.: MIT Press, 67-132.

Ashford, Nicholas A. and Ralph P. Hall. 2011. *Technology, Globalization and Sustainable Development: Transforming the Industrial State*, New Haven: Yale University Press, Chapter 3.

Related Reading

Lofdahl, Corey L. 2002. *Environmental Impacts of Globalization and Trade*, Cambridge MA, MIT Press, Chapter 5.

Allenby, Braden R. 1999. *Industrial Ecology: Policy Framework and Implementation*. New Jersey: Prentice-Hall, Ch. 6.

Essential Reading

Rothenberg, Jerome R. 1993. "Economic Perspectives on Time Comparisons: An Evaluation of Time Discounting," in Choucri, Nazli *Global Accord: Environmental Challenges and International Responses*. Cambridge, Mass.: MIT Press, 307-332

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SUSTAINABLE DEVELOPMENT: THEORY POLICY

(7) Technology Firms & Markets – Corporate Perspectives

October 29, 2013

Required Reading

Choucri, Nazli. 1995. "Multinational Corporations and the Global Environment," in Choucri, Nazli ed., *Global Accord: Environmental Challenges and International Responses*, Cambridge, Mass.: MIT Press, 205-254.

Porter, Michael E. and Claas van der Linde. 2012. "Toward a New Conception of the Environment-Competitiveness Relationship," in Stavins, Robert N., ed. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 5.

Reinhardt, Forest L., Robert N. Stavins and Richard H.K. Vietor. 2012. "Corporate Social Responsibility through an Economic Lens" in Stavins, Robert N., ed. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 22.

Portney, Paul R. 2012. "The (Not So) New Corporate Social Responsibility: An Empirical Perspective," in Stavins, Robert N., ed. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 23.

Related Reading

Choucri, Nazli. 1994. "Corporate Strategies toward Sustainability," in Lang, Winifred ed., *Sustainable Development and International Law*, Boston: Graham & Trotman/ Martinus Nijhoff, 189-201.

Allenby, Braden R. 1999. *Industrial Ecology: Policy Framework and Implementation*. New Jersey: Prentice-Hall. Ch. 16.

Lim, Shung Yar. 2007. "The Value of Knowledge for Extended Enterprises," in Choucri, Nazli et. Al, eds. 2007. *Mapping Sustainability: Knowledge e-Networking and the Value Chain*. Cambridge, Mass: Springer Press, Chapter 10.

Essential Reading

Arrow, Kenneth. J. et. al. 2012. "Is there a Role for Benefit-Cost Analysis in Environment, Health and Safety" in Stavins, Robert N., ed. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 11.

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(8) Climate Change & Sustainable Development

November 5, 2013

Required Reading

Fullerton, Don and Robert N. Stavins. 2012. "How Economists See the Environment", in Stavins, Robert N., ed. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 1.

Keohane, Nathaniel O., Richard L. Revesz, and Robert N. Stavins. 2005. "The Choice of Regulatory Instruments in Environmental Policy," in Stavins, Robert N., *Economics of the Environment*. 5th ed. New York: W. W. Norton & Company, Chapter 32.

Tietenberg, Tom H. 2005. "Economic Instruments for Environmental Regulation," in Stavins, Robert N., ed. 2005. *Economics of the Environment*, 5th ed. New York: W. W. Norton & Company, Chapter 15.

Related Reading

Palmer, Karen, Wallace E. Oates, and Paul R. Portney. 2012. "Tightening Environmental Standards: The Benefit-Cost or the No-Cost Paradigm?" in Stavins, Robert N., ed. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company. Chapter 6.

Dasgupta, Susmita et. al. 2005. "Confronting the Environmental Kuznets Curve", in Stavins, Robert N., ed. 2005 *Economics of the Environment*. 5th ed. New York: W. W. Norton & Company, Chapter 20.

Essential Reading

Choucri, Nazli. 2007. "Conclusion: Mapping Sustainability, Knowledge e-Networking, and the Value Chain, Synthesis, Insights, and Evidence," in Choucri, Nazli et. al. eds. 2007. *Mapping Sustainability: Knowledge e-Networking and the Value Chain*. Cambridge: Springer Press, Chapter 20.

Carraro, Carlo. 2002/2003. "Climate change policy: models, controversies and strategies" in Tietenberg, Tom and Henk Folmers, eds. *The International Yearbook of Environmental and Resource Economics* Edward Elgar: Northampton, Mass., 2003

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SUSTAINABLE DEVELOPMENT: THEORY & PUBLIC POLICY

(9) From Sustainability “Problems” to “Solution” Strategies

November 12, 2013

Required Reading

Pearce, David. 1993. “Sustainable Development and Developing Country Economies,” in Turner, R. Kerry ed., *Sustainable Environmental Economics and Management: Principles and Practice*, New York: Belhaven Press, 71-105.

Allenby, Braden R. 1999. *Industrial Ecology: Policy Framework and Implementation*. New Jersey: Prentice-Hall, Ch. 13.

Rothenberg, Jerome R. 1993. “Economic Perspectives on Time Comparisons: Alternative Approaches to Time Comparisons”, in Choucri, Nazli ed. *Global Accord: Environmental Challenges and International Responses*. Cambridge, Mass.: MIT Press., 355-398

Related Reading

Conca, Ken. 2005. “Global Water Prospects” in Pirages, Dennis and Ken Cousins eds. *From Resource Scarcity to Ecological Security*. Cambridge: The MIT Press, 59-87.

Cousins, Ken. 2005. “Twenty-Nine Days: Responding to a Finite World”, in Pirages, Dennis and Ken Cousins eds. *From Resource Scarcity to Ecological Security*. Cambridge: The MIT Press, 217-226.

Cohen, Marc C. 2005. “Food Policy: Underfed or Overfed?” in Pirages, Dennis and Ken Cousins eds. *From Resource Scarcity to Ecological Security*. Cambridge: The MIT Press, 83-104.

Essential Reading.

Tainter, Joseph A. 1988. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press, Chapters 5 and 6.

See *Global System for Sustainable Development*: <http://gssd.mit.edu> for specific ‘matching’ of ‘problems’ and ‘solutions’ by sector, issue, unit, level, context.

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(10) New International Institutional Contexts

November 19, 2013

Required Reading

Haas, Peter M. with Jan Sundgren. 1993. "Evolving International Environmental Law: Changing Practices of National Sovereignty," in Choucri, Nazli ed., *Global Accord: Environmental Challenges and International Responses*, Cambridge, Mass.: MIT Press, 401-429.

Metrick, Andrew and Martin L. Weitzman. 2005. "Conflicts and Choices in Biodiversity Preservation", " in Stavins, Robert N., ed. 2005 *Economics of the Environment*. 5th ed. New York: W. W. Norton & Company, Chapter 28.

Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press. Chapter 6.

Related Reading

Levy, David and Peter J. Newell eds. 2004. *The Business of Environmental Governance*. Cambridge, Mass.: The MIT Press, Chapters 1 and 4.

Sands, Philippe. 1995. "International Law in the Field of Sustainable Development: Emerging Legal Principles," in Lang, Winifred ed., *Sustainable Development and International Law*, Boston: Graham & Trotman/Martinus Nijhoff, 53-66.

Essential Reading

Ostrom, Elinor, Larry Schroeder, and Susan Wynne. 1993. *Institutional Incentives and Sustainable Development*. Boulder: Westview Press. Chapters 1, 3, 5, and 6.

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(11) International Trade and Intellectual Property Rights

November 26, 2013

Required Reading

Stevens, Candice. 1995. "Trade and Environment: The PPMs Debate," in Lang, Winifred ed., *Sustainable Development and International Law*, Boston: Graham & Trotman/Martinus Nijhoff, 239-247.

Røpke, Inge. 1994. "Trade, Development and Sustainability -- a Critical Assessment of the 'Free Trade Dogma'" *Ecological Economics* 9:13-22.

Wickboldt, Anne-Katrin. 2007. "Growing Clean: Property Rights, Economic Growth, and the Environment," in Choucri, Nazli et al (eds). *Mapping Sustainability: Knowledge e-Networking and the Value Chain*. Cambridge: Springer Press, Chapter 14.

Related Reading

Goldman, Patti A. 1994. "Resolving the Trade and Environment Debate: In Search of a Neutral Forum and Neutral Principles." *49 Washington & Lee Law Review* 1279.

Davis, Stan and Jim Botkin "The Coming of Knowledge-Based Business" in Neef, Dale, ed. 1998 *The Knowledge Economy*. Oxford: Butterworth-Heinemann, Chapter 11

See *United Nations Commission on Sustainable Development*, for information on problems and international responses. <http://www.un.org/esa/sustdev/csd.htm>

Essential Reading

Frankel, Jeffrey A. "The Environment and Globalization" in Stavins, Robert N., ed. 2012. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 31.

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(12) International Processes

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Required Reading

Sand, Peter H. 1995. "Trusts for the Earth: New International Financial Mechanisms for Sustainable Development," in Lang, Winifred ed., *Sustainable Development and International Law*, Boston: Graham & Trotman/Martinus Nijhoff, 167-184.

Ashford, Nicholas A. and Ralph P. Hall. 2011. *Technology, Globalization and Sustainable Development: Transforming the Industrial State*, New Haven: Yale University Press, 554-556.

Paehlke, Robert. 1999. "Towards Defining, Measuring and Achieving Sustainability: Tools and Strategies for Environmental Valuation," in Becker, Egon and Thomas Jahn, eds. *Sustainability and the Social Sciences: A Cross-Disciplinary Approach to Integrating Environmental Considerations into Theoretical Reorientation*. London: Zed Books. Chapter 13.

Related Reading

Bohn, Roger E. 1998. "Measuring and Managing Technological Knowledge" in Neef, Dale, ed. *The Knowledge Economy*. Oxford: Butterworth-Heinemann. Chapter 10.

Kelman, Steven. 2012. "Cost-Benefit Analysis: An Ethical Critique," in Stavins, Robert N., ed. *Economics of the Environment*. 6th ed. New York: W. W. Norton & Company, Chapter 14.

WSIS Website: <http://www.itu.int/wsis/index.html>

Essential Reading

Weiss, Edith Brown. 1995. "Intergenerational Equity: Toward an International Legal Framework," in Choucri, Nazli ed., *Global Accord: Environmental Challenges and International Responses*, Cambridge, Mass.: MIT Press, 333-53.

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SUSTAINABLE DEVELOPMENT: THEORY & POLICY

(13) Global Accord—Next Rounds

December 10, 2013

Required Reading

Allenby, Braden R. 1999. *Industrial Ecology: Policy Framework and Implementation*. New Jersey: Prentice-Hall,. Ch. 12.

Ashford, Nicholas A. and Ralph P. Hall. 2011. *Technology, Globalization and Sustainable Development: Transforming the Industrial State*, New Haven: Yale University Press, Chapter 10 and page 629 from Chapter 12.

Related Reading

Brewer, Garry, 1995. "Environmental Challenges and Managerial Responses", in Choucri, Nazli ed., *Global Accord: Environmental Challenges and International Responses*, Cambridge, Mass.: MIT Press, 281-303.

Essential Reading

Dolsak, Nives and Elinor Ostrom. 2003. *The Commons in the New Millenium*. Cambridge, Mass.: The MIT Press. Chapter 1.

September 3, 2013