

Prof. Paul Steinberg
Social Science 180
Harvey Mudd College
Fall 2015

Mon/Wed 9:35-10:50
Room: Shanahan B450
Office hours by appointment in
Parsons 1280

TROPICAL FORESTS: POLICY AND PRACTICE



From the time that the plight of tropical forests first captured world attention in the late 1980s, countless citizens' groups, international initiatives, and national policies have been launched to address this global problem. These efforts have been accompanied by substantial research literatures in diverse academic fields. What have we learned? This course takes stock of these insights and experiences, examining the scale of deforestation, its causes and consequences, and the track record of attempted solutions. Special emphasis is placed on the values, institutions, and political-economic forces that shape the fate of the forests.

Required Texts

A collection of articles and chapters is available in the resources section of Sakai.

Course Requirements

Active Class Participation	10 %
In-class Presentations	15 %
Midterm	25 %
Conservation Systems Background Papers	25 %
Final Group Presentation	25 %

All required readings are in the Resources folder of Sakai unless otherwise noted. Recommended readings are purely optional and can be downloaded from Google Scholar. For electronic resources, page numbers refer to those of the original documents, not Adobe Acrobat pages.

Course Schedule

Letters in brackets {X} below indicate corresponding instructions posted on Sakai.

Sept 2 Wed

Introduction and Course Overview

Readings:

View on YouTube “Official Video of the International Year of Biodiversity 2010”

Dhani Forest case study, pp. 181-192 in United Nations Development Programme *et al.*, *World Resources 2000-2001: People and Ecosystems: The Fraying Web of Life*, World Resources Institute, 2000.

THE SCOPE AND SCALE OF THE PROBLEM

Sept 7 Mon

Patterns of Deforestation

Readings:

{A} UN Food and Agriculture Organization, *Global Forest Resources Assessment 2010*. (Available on Sakai as “FAO Assessment.”) Read executive summary and pp. 16-19 only. Note: The 2015 assessment – the first in 10 years – is due to be released in a few days.

Sept 9 Wed

Patterns of Production and Consumption

Readings:

International Tropical Timber Organization (ITTO), *Biennial Review and Assessment of the World Timber Situation*, 2013–14. Skim text in chapters 2 and 3 and study tables and figures to answer questions in {A}, which provides supplementary data sources.

FOUNDATIONS

Sept 14 Mon

The Role of Social Values

{B} Readings:

Susanna Hecht and Alexander Cockburn, *The Fate of the Forest: Developers, Destroyers and*

Defenders of the Amazon, University of Chicago Press, 2010. Chapter 1.

Section 4 only (pp. 232–34) of David Pearce, Francis E. Putz and Jerome K. Vanclay (2003) Sustainable Forestry in the Tropics: Panacea or Folly?, *Forest Ecology and Management* 172:229–247.

Recommended:

Robinson, John G. (2011) Ethical Pluralism, Pragmatism, and Sustainability in Conservation Practice, *Biological Conservation* 144(3): 958–965.

Sept 16 Wed

Ecology: The Global Extinction Crisis

{C} Readings:

Simon L. Lewis, David P. Edwards, and David Galbraith (2015) Increasing Human Dominance of Tropical Forests, *Science* 349(6250): 827–832.

Gerardo Ceballos et al. (2015) Accelerated Modern Human–induced Species Losses: Entering the Sixth Mass Extinction, *Science Advances* 1(5): e1400253.

Rodolfo Dirzo and Peter H. Raven (2003) Global State of Biodiversity and Loss, *Annual Review of Environment and Resources* 28:137–167. (See {C} regarding sections to skip.)

Norman Myers *et al.* (2000) Biodiversity Hotspots for Conservation Priorities, *Nature* 403:853–858.

Sept 21 Mon

Economic Perspectives

{D} Readings:

David Pearce, An Economic Approach to Saving the Tropical Forests, pp. 239–262 in Dieter Helm (ed.), *Economic Policy Towards the Environment*, Blackwell Publishers, 1991.

Paul F. Steinberg, A Perilous Journey, from *Who Rules the Earth? How Social Rules Shape Our Planet and Our Lives*, Oxford University Press, 2015.

Sept 23 Wed

Research Frontiers: Getting Ready for REDD+

Readings:

Common reading:

What Is REDD+ ?, online video (on Sakai) produced by theredddesk.org

⇒ Three-person teams present 5 minute summaries (including PowerPoint slides) of the following, which are in the REDD folder in Sakai/resources/readings:

Hermansen, Erlend (2015) Policy Window Entrepreneurship: The Backstage of the World's Largest REDD+ Initiative, *Environmental Politics* [ahead of print]: 1-19.

Holly K. Gibbs et al. (2007) Monitoring and Estimating Tropical Forest Carbon Stocks: Making REDD a Reality, *Environmental Research Letters* 2(4): 045023.

Michael Carlowicz, Seeing Forests for the Trees and the Carbon: Mapping the World's Forests in Three Dimensions, website of NASA Earth Observatory, January 2012.

Josil P. Murray et al. (2015) Spatial Patterns of Carbon, Biodiversity, Deforestation Threat, and REDD+ Projects in Indonesia, *Conservation Biology* 0(0): 1–12.

Pablo Reed (2011) REDD+ and the Indigenous Question: A Case Study from Ecuador, *Forests* 2(2): 525–49.

C. Schneider et al. (2015) Small-Scale Farmers' Needs to End Deforestation: Insights for REDD+ in São Felix do Xingu (Pará, Brazil), *International Forestry Review* 17(S1): 124-142.

William Sunderlin et al. (2014) How are REDD+ Proponents Addressing Tenure Problems? Evidence from Brazil, Cameroon, Tanzania, Indonesia, and Vietnam, *World Development* 55: 37–52.

Chris D. Thomas et al. (2013) Reconciling Biodiversity and Carbon Conservation, *Ecology Letters* 16(s1): 39–47.

Marjanneke J. Vijge (2015) Competing Discourses on REDD+: Global Debates versus the First Indian REDD+ Project, *Forest Policy and Economics* 56: 38–47.

Stefano Pagiola (2008) Payments for Environmental Services in Costa Rica, *Ecological Economics* 65(4): 712–24.

Sept 28 Mon

Politics and Institutions

{E} Readings:

Paul F. Steinberg, Strings Attached, chapter 2 in *Who Rules the Earth? How Social Rules Shape Our Planet and Our Lives*, Oxford University Press, 2015.

Paul F. Steinberg, Political Resources, chapter 5 in *Environmental Leadership in Developing Countries*, MIT Press, 2001.

Sept 30 Wed Conservation systems

In class we will form 3-person teams and begin research. Be sure to complete the readings in advance. Bring a laptop to class if you have access to one.

Readings:

Paul F. Steinberg (2009) Institutional Resilience amid Political Change: The Case of Biodiversity Conservation, *Global Environmental Politics* 9(3):61–81.

Online video (Sakai) with tips for finding high quality research. (Mac users, if it doesn't open use VLC software, downloadable from videoLAN.org/vlc.)

CAUSES OF FOREST DEGRADATION

Oct 5 Mon **Overview**

{F}Readings:

Arild Angelsen and David Kaimowitz (1999) Rethinking the Causes of Deforestation: Lessons from Economic Models, *The World Bank Research Observer* 14(1):73-98.

⇒ Groups present summaries of assigned sections from Angelsen and Kaimowitz.

Oct 7 Wed

Teams continue research and planning for conservation systems assignment.

Oct 12 Mon **Governance: The Impact of Public Policy**

In-class film: *The Timber Mafia*

Readings:

Hans P. Binswanger (1991) Brazilian Policies that Encourage Deforestation in the Amazon, *World Development* 19(7):821-829.

Paul F. Steinberg, The Chaos Factor, *Geographical*, May 2015.

Recommended:

Paul J. Ferraro et al. (2015) Estimating the Impacts of Conservation on Ecosystem Services and Poverty by Integrating Modeling and Evaluation, *Proceedings of the National Academy of Sciences* 112(24): 7420–25.

Daniel Kaufmann, *Myths and Realities of Governance and Corruption*, The Brookings Institution, Washington DC, November 2005.

Kathryn Hochstetler and Margaret E. Keck, *Greening Brazil: Environmental Activism in State and Society*, Duke University Press, 2007. (Available in library.)

⇒ **Oct 14 Wed** **Midterm I**

Oct 19 Mon *No class – fall break*

Oct 21 Wed **State and Society in Conflict**

Readings:

{G} Nancy Lee Peluso, *Rich Forests, Poor People: Resource Control and Resistance in Java*, University of California Press, 1992. Chapter 7.

Recommended:

Connor J. Cavanagh, et al. (2015) Securitizing REDD+? Problematizing the Emerging Illegal Timber Trade and Forest Carbon Interface in East Africa, *Geoforum* 60: 72-82.

⇒ *Conservation systems draft bibliography due on Sakai by Friday 5pm.*

Oct 26 Mon **More and Diverse Causes of Forest Degradation**

⇒ *Student teams present 5-minute summaries of readings:*

Richard T. Corlett (2011) Impacts of Warming on Tropical Lowland Rainforests, *Trends in Ecology & Evolution* 26(11): 606–13.

Fitzherbert, Emily B., et al. (2008) How Will Oil Palm Expansion Affect Biodiversity?, *Trends in Ecology & Evolution* 23 (10): 538–45.

Lian Pin Koh and David S. Wilcove (2008) Is Oil Palm Agriculture Really Destroying Tropical Biodiversity?, *Conservation Letters* 1(2): 60-64.

Robin R. Sears, Liliana M. Dávalos and Gonçalo Ferraz (2001) Missing the Forest for the Profits: The Role of Multinational Corporations in the International Forest Regime, *Journal of Environment & Development* 10(4):345–64.

Jennifer J. Swenson et al. (2011) Gold Mining in the Peruvian Amazon: Global Prices, Deforestation, and Mercury Imports, *PloS one* 6(4):e18875 (7pp.).

Craig Thorburn (2002) Regime Change - Prospects for Community-Based Resource Management in Post-New Order Indonesia, *Society and Natural Resources* 15:617-628.

William F. Laurance *et al.* (2006) Impacts of Roads and Hunting on Central African Rainforest Mammals, *Conservation Biology* 20 (4):1251–61.

Elizabeth Barona *et al.* (2010) The Role of Pasture and Soybean in Deforestation of the Brazilian Amazon, *Environmental Research Letters* 5(2):1–9.

Marcello M. Veiga and Jennifer J. Hinton (2002) Abandoned Artisanal Gold Mines in the Brazilian Amazon: a Legacy of Mercury Pollution, *Natural Resources Forum* 26:15–26.

Eduard T. Niessen *et al.*, eds, *Commodities and Conservation: The Need for Greater Habitat Protection in the Tropics*, Conservation International, Center for Applied Biodiversity Science, Washington, DC.

THE SEARCH FOR SOLUTIONS

Oct 28 Wed

Sustainable Forestry: Is It?

Readings {J}:

Ian A. Bowles *et al.* (1998) Logging and Tropical Forest Conservation, *Science* 280 (5371):1899–1900.

Search Google Scholar for <sustainable timber tropics> and limit the search to the past 10 years of publications. Choose one article to read and provide 1-3 sentences of take-home points on the Google doc we will create for this purpose. Come to class prepared to discuss your article.

Recommended:

David Pearce, Francis E. Putz and Jerome K. Vanclay (2003) Sustainable Forestry in the Tropics: Panacea or Folly?, *Forest Ecology and Management* 172:229–47.

F. E. Putz *et al.* (2001) Tropical Forest Management and Conservation of Biodiversity: An Overview, *Conservation Biology* 15:7–20.

Nov 2 Mon

Ecotourism

Guest speaker to be announced.

Nov 4 Wed Forest Certification

Ruth Nogueron and Anne Middleton, *Tuning In: Tracking Wood from Honduran Forests to U.S. Guitars*, World Resources Institute, Washington DC, 2013.

Graeme Auld, Lars H. Gulbrandsen, and Constance L. McDermott (2008) Certification Schemes and the Impacts on Forests and Forestry, *The Annual Review of Environment and Resources* 33:187–211.

Nov 9 Mon *No class – HMC advising week. Work on conservation systems*

Nov 11 Wed *No class – HMC advising week. Work on conservation systems*

Nov 16 Mon Protected Areas and Their Critics

Readings:

{H} Nigel Dudley et al. (2014) Where Now for Protected Areas? Setting the Stage for the 2014 World Parks Congress, *Oryx* 48(04): 496–503.

Daniel Brockington and James Igoe (2006) Eviction for Conservation: A Global Overview, *Conservation and Society* 4(3):424–70.

Recommended:

William F. Laurance et al. (2012) Averting Biodiversity Collapse in Tropical Forest Protected Areas, *Nature* 489 (7415): 290-294.

Nov 18 Wed Community-based Conservation

⇒ Conservation systems group presentations begin.

Readings:

David Western and R. Michael Wright, The Background to Community-based Conservation, pp. 1-12 in David Western et al. (eds.), *Natural Connections: Perspectives in Community-based Conservation*, Island Press, 1994.

Fred Nelson and Arun Agrawal (2008) Patronage or Participation? Community-based Natural Resource Management Reform in SubSaharan Africa, *Development and Change* 39 (4): 557-585.

Recommended:

Anne M. Larson and Fernanda Soto (2008) Decentralization of Natural Resource Governance Regimes, *Annual Review of Environment and Resources* 33(1): 213-239.

Nov 23 Mon

Managing the Commons

⇒ Play the videogame *Law of the Jungle*, available at rulechangers.org (Play time approx. one hour.)

Recommended:

Frederick W. Cubbage et al. (2015) Community Forestry Enterprises in Mexico: Sustainability and Competitiveness, *Journal of Sustainable Forestry* 34(6-7): 623–50.

WHAT CAN YOU DO?

Nov 25 Wed

Sustainable Purchasing Strategies

Guest speaker to be announced.

Nov 30 Mon

Transnational Advocacy Campaigns

⇒ *Student panel provides summary of research articles:*

Susan Park (2005) How Transnational Environmental Advocacy Networks Socialize International Financial Institutions: A Case Study of the International Finance Corporation, *Global Environmental Politics* 5(4): 95-119.

Erika N. Sasser et al. (2006) Direct Targeting as an NGO Political Strategy: Examining Private Authority Regimes in the Forestry Sector, *Business and Politics* 8(3): online.

Emily McAteer and Simone Pulver (2009) The Corporate Boomerang: Shareholder Transnational Advocacy Networks Targeting Oil Companies in the Ecuadorian Amazon, *Global Environmental Politics* 9(1): 1-30.

Sonja K. Pieck and Sandra A. Moog (2009) Competing Entanglements in the Struggle to Save the Amazon: The Shifting Terrain of Transnational Civil Society, *Political Geography* 28(7): 416-425.

Oliver Pye (2010) The Biofuel Connection—transnational Activism and the Palm Oil Boom, *The Journal of Peasant Studies* 37(4): 851–74.

Dec 2 Wed


The Impact of US Foreign Policy

Readings:

Paul G. Harris (ed.), *The Environment, International Relations, and U.S. Foreign Policy*, Georgetown University Press, 2002. Selections to be announced.

Dec 7 Mon**Conservation Starts at Home**

Field trip to the Rancho Santa Ana Botanic Garden

Dec 9 Wednesday**Wrap up** Background papers due.