

**NRES 423/GEOG 423
POLITICS OF INTERNATIONAL
CONSERVATION AND DEVELOPMENT**

**Syllabus
Spring 2018**

Instructor

Professor Daniel C. Miller
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Office Hours: Thursday 2-4:00 pm or by appt.

Course Meeting Time

Tuesday & Thursday 12:30-1:50 pm
N-527 Turner Hall
(3 credit hours)

Course Overview

How might we conserve the earth's rich biological heritage while enhancing the well-being of some of the world's poorest people? This question lies at the heart of this course. To address it we will draw primarily from political science and related cross-cutting fields such as conservation biology, political ecology, and development studies. The course will demonstrate how insights and approaches from these areas of scholarship can help understand and address the twin problems of biodiversity loss and human poverty in the countries of Africa, Asia, and Latin America. Examples will be drawn from these regions focusing on forest and wildlife conservation and management.

The course is divided into three sections. The first section introduces the logic and difficulty of linking conservation with development. The core of the course focuses on key concepts, theories, and approaches relating to the political dimensions of this challenge. It emphasizes environmental governance at multiple geographic and institutional scales. The third section explores how these concepts and approaches may help understand and address the synergies and trade-offs between biodiversity conservation and poverty alleviation. This course is designed for graduate and advanced undergraduate students who are interested in conservation, sustainable development, and international affairs.

Course Goals

Through this course students will be able to:

- **Describe and discuss** why biodiversity is an important issue in the tropical world and how development matters to biodiversity conservation policy in that context;
- **Define and use concepts and approaches** from political science and related cross-cutting fields to analyze the key issues involved in efforts to combine biodiversity conservation and human development goals in tropical countries;
- **Evaluate and debate** the synergies and trade-offs between these two goals;
- **Build critical thinking and collaboration capacity** necessary to grapple with complex social-ecological problems;
- **Strengthen research, writing, and public speaking skills** through written assignments and in-class presentations and discussion.

As a result of this course I hope that students will also:

- Appreciate the value of political science and related social science fields for understanding and developing solutions to complex social-ecological problems; and
- Consider pursuing further academic, personal, and professional engagement with biodiversity conservation and human development in their local community, elsewhere in the United States, and abroad.

Instructional Methods and Assignments

Class Participation: Active participation is essential to realizing course learning objectives. In-class reflection on and discussion of readings will enhance comprehension and ability to apply concepts, theories, and information from the readings to complex “real world” contexts. *I expect that students will have read the materials and be adequately prepared for each class.* During our meetings, you are expected to participate actively and thoughtfully. Debate is encouraged, but must be respectful others’ views and opinions. The class will consist of a mix of presentations by the instructor and members of the class as well as full group discussion and small group activity. You will be graded based on your participation in these activities and the respect shown to your peers. Students may have two unexcused absences and still receive full credit for participation.

The syllabus includes several recommended readings. These are meant to provide additional context, depth, and, often, specific case studies relating to the topic at hand. They are not required, but you may wish to explore them according to your interest and especially as you develop research paper ideas or in-class presentations (see below). Graduate students, in particular, may wish to delve into these readings. Generally, the reading load is heavier in the first couple months of the semester to help you gain familiarity with the literature and inform class assignments. The volume of readings then tapers off to enable more time for individual research and writing for the final paper.

Leading Discussion: Students will be required to lead discussion for one class meeting during the semester. Graduate students should lead discussion individually while undergraduates may work in pairs if desired. You should *not merely summarize the readings* (everyone should have read them already), but rather establish the context for our discussion, either by presenting further background theoretical literature, or by introducing an empirical case to illustrate and motivate the discussion. Your presentation should last 10-15 minutes, and you should have discussion questions at hand to help guide this discussion. You may use the projector, though detailed PowerPoints are discouraged. Handouts are suggested as a helpful way to summarize information and raise questions.

Reading questions: To help guide in-class discussion and develop potential research topics, students will be required to write 10 short comments on the relevant class readings. Each comment should include at least one question based on the readings and should be about 50-100 words in length. To ensure that these assignments are spread out through the semester, students should submit no more than one question per week the course meets. Ideally, students should submit about six comments/questions *before spring break* and four after. Each of these should include a brief statement of motivation and should clearly state the question being asked. Questions should move beyond inquiring about specific facts. Instead, they may relate to:

- why a particular reading or group of readings was selected and fits with previous readings or the broader literature;
- whether and how a key concept or theory has been applied to specific cases;
- strengths or weaknesses of the readings and arguments they advance;
- ideas, concepts, or cases that were unclear; or
- other topics of interest.

Questions should be **submitted via the course discussion board on Compass by noon the day of our class meeting**. You may receive extra credit for submitting *one additional question* beyond the 10 required.

Editorial: Students will be required to write an editorial or article intended for a lay audience on a topic covered in the course. This writing assignment will be due at mid-term. Please refer to the editorial pages of the New York Times or other major newspaper for a model of such editorials. A list of potential topics and details of the assignment will be made available by the end of the first month of the course or you can discuss with the professor an issue of particular interest to you.

Research paper: A research paper is a central component of this class. It is key to reaching course learning objectives and will provide first-hand experience with the scholarly publication process, one of the most important aspects of academic life.

The research paper will be completed in stages, each graded separately. First, students will prepare a short (500-750 words) sketch of a research idea relating to the challenge of linking conservation with development in tropical or sub-tropical countries (due by February 20). A list of potential topics will be provided by the third week of class. The topics will provide considerable latitude so that students can pursue research squarely in their area of interest. Next, you will submit a working bibliography and a summary of the main argument and preliminary findings for the final paper (by April 12). The last two sessions of the course will be used for oral presentations of the paper to the class. Each presentation should be about 10 minutes. The final research paper should be *12-15 double-spaced pages in length for undergraduate students* and *20-25 double-spaced pages for graduate students*. It will be due May 10.

Grading

Assignments	Points	Percent of Final Grade
Class participation	75 points	15%
Leading discussion	25 points	5%
Reading questions	50 points	10%
Editorial	75 points	15%
Research paper		
Sketch	25 points	5%
Bibliography, argument & findings	75 points	15%
Presentation	25 points	5%
Final paper	150 points	30%
Total =	500 points	100%

Your final course grade will be determined by the total number of points you earn during the semester based on the requirements listed above. We will use the +/- system. For example, generally, an A- will be 90 to 92%, an A will be 93-96%, and an A+ 97 to 100%.

Course Materials

Course documents, including required readings, will be posted on the course website (located at: <https://compass2g.illinois.edu>) throughout the semester, and you should frequently check this site for updates. All readings will be accessible through the Illinois library, the course Compass site, or otherwise on-line. Readings will include peer-reviewed journal articles, book chapters, mainstream media articles, and grey literature.

Writing resources

Several resources are available to help strengthen your writing. The College of ACES provides a license for *Grammarly@edu*, which all students taking this course can use. Grammarly@edu is an online computerized program that scans writing and provides an in-depth, extensive grammar review (complete with explanations) on more than 150 types of potential writing errors. *This use of this program is highly encouraged for the main written assignments in this course.* To set up your Grammarly account:

- 1) Go to <https://www.grammarly.com/edu/signup>
- 2) Enter your name, email (netid@illinois.edu), and preferred password. Click "sign up".
- 3) Please check your email (inbox and spam) for an activation email.

You may also find it useful to consult the *Grammarly Handbook*, for help with grammar, punctuation and mechanics, style and word uses: <http://www.grammarly.com/handbook/>.

Finally, the *University of Illinois Writers Workshop* (<http://www.cws.illinois.edu/workshop/>) is a valuable resource that offers scheduled individual appointments for students with a writing consultant to review coursework and other written work.

Books

Required:

Ostrom, E. 2015 [1990]. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.

Recommended:

Gibson, C. (1999). *Politicians and Poachers: The Political Economy of Wildlife Policy in Africa*. Cambridge, MA: Cambridge University Press.

Scott, J.C. (1998). *Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven, CT: Yale University Press.

CLASSROOM POLICIES

Assignments format: Written assignments must be typed using 12-point, Times New Roman font, with double-spaced lines, using normal (1") margins, and saved as a Word (.doc or .docx) document.

Late Submission Policy: Assignments must be turned in at the beginning of class on the due date. 10% of the total score will be deducted for each day (or part thereof) past the deadline.

Email policy

Urgent queries and problems should be emailed to me, **with the subject line “NRES 423 <fill in specific query>”**. Please write clearly and succinctly and allow up to 72 hours for a response.

Electronic devices: Laptop computers and other electronic devices are allowed in the classroom, but these should be limited to specific tasks (e.g. group work and presentations). They are not recommended for note-taking. Research increasingly shows that screens can be distracting to you and to those around you, impeding student learning (see, e.g., <http://chronicle.com/article/article-content/228089/>). Cell phones may not be used during class time, and should be silenced or turned off.

Special Needs: Please let me know (either in-person or via email) if you require special accommodations due to learning disabilities, physical requirements, medical needs or any other reason. See also “Students with Disabilities” below.

University Policies

Academic Integrity: The University of Illinois at Urbana-Champaign *Student Code* should also be considered as a part of this syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: <http://studentcode.illinois.edu/>. Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policy. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask me if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

Students with Disabilities: To ensure that disability-related concerns are properly addressed from the beginning, students with disabilities who require assistance to participate in this class should contact Disability Resources and Educational Services (DRES) and see the instructor as soon as possible. If you need accommodations for any sort of disability, please speak to me after class, or make an appointment to see me, or see me during my office hours. DRES provides students with academic accommodations, access, and support services. To contact DRES you may visit 1207 S. Oak St., Champaign, call 333-4603 (V/TDD), or e-mail a message to disability@uiuc.edu. <http://www.disability.illinois.edu/>.

Emergency Response Recommendations: Emergency response recommendations can be found at the following website: <http://police.illinois.edu/emergency/>. I encourage you to review this website and the campus building floor plans website within the first 10 days of class (see: <http://police.illinois.edu/emergency/floorplans/>).

Family Educational Rights and Privacy Act (FERPA):

Any student who has suppressed their directory information pursuant to *Family Educational Rights and Privacy Act* (FERPA) should self-identify to the instructor to ensure protection of

the privacy of their attendance in this course. See <http://registrar.illinois.edu/ferpa> for more information on FERPA.

Sexual Misconduct Policy and Reporting: The University of Illinois is committed to combating sexual misconduct. As such, you should know that faculty and staff members are required to report any instances of sexual misconduct—which also includes dating violence, domestic violence, and stalking—to the University’s Title IX and Disability Office. What this means is that as your instructor, I am required to report any incidents of sexual misconduct that are directly reported to me, or of which I am somehow made aware. When a report is received, an individual with the Title IX and Disability Office reaches out to provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options. There is an exception to this reporting requirement about which you should be aware. A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: wecare.illinois.edu/resources/students/#confidential. Other information about resources and reporting is available here: wecare.illinois.edu.

Course Schedule

PART I. THE PROBLEM: LINKING CONSERVATION AND DEVELOPMENT

Week 1

Class 1: Overview of the Course [Tu: 1/16]

Nzouaug, Goodwell. (2015). “[In Zimbabwe, We Don’t Cry for Lions.](#)” New York Times. Aug. 4

Coonie, Rosie. (2015). “[RIP Cecil the lion – what will be his legacy? And who should decide?](#)” IIED Blog post, July 31.

Class 2: Conservation, Poverty, and Sustainable Development [Th: 1/18]

Adams, W.M. (2009). “The Dilemma of Sustainable Development,” pp. 1-25 in *Green Development: Environment and Sustainability in a Developing World*. 3rd Ed. London: Routledge. [26 p.]

United Nations. (2015). Transforming our World: The 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015. [35 p.]

Recommended readings:

Francis. (2015). [Encyclical Letter Laudato Si’ of the Holy Father Francis on Care for our Common Home](#). The Vatican. pp. 1-44. [44p.]

Millennium Ecosystem Assessment. (2005). Summary for decision-makers. Ecosystems and Human Wellbeing: Biodiversity Synthesis. Washington: World Resources Institute, 1-16. <http://www.millenniumassessment.org/en/products.aspx>. [16 p.]

McKinnon, Madeleine C., et al. (2016). “What are the effects of nature conservation on human well-being? A systematic map of empirical evidence from developing countries.” *Environmental Evidence* 5.1

Week 2

Class 3: The Importance and Status of Global Biodiversity [Tu: 1/23]

- Johnson, C. N., Balmford, A., Brook, B. W., Buettel, J. C., Galetti, M., Guangchun, L., & Wilmschurst, J. M. (2017). Biodiversity losses and conservation responses in the Anthropocene. *Science*, 356(6335), 270–275. [6 p.]
- Cardinale B.J., Duffy J.E., Gonzalez A. *et al.* (2012) Biodiversity loss and its impact on humanity. *Nature* 486, 59-67. [9 p.]
- Rockström, J., Steffen, W., Noone, et al. (2009). A safe operating space for humanity. *Nature*, 461(7263), 472-475. [4 p.]
- USAID. (2014). USAID Biodiversity Policy. Washington: USAID. Skim, esp. pp. 1-20. <https://www.usaid.gov/sites/default/files/documents/1865/USAID%20Biodiversity%20Policy%20-%20June%202015.pdf> [20 p.]

Recommended Readings:

- Isbell, F., Gonzalez, A. et al. (2017). Linking the influence and dependence of people on biodiversity across scales. *Nature*, 546: 65-72 [8p.]
- Tittensor, Derek P. *et al.* (2014) "A mid-term analysis of progress toward international biodiversity targets." *Science* 346: 241-244. [4 p.]
- Shepherd, E., Milner-Gulland, E.J., Knight, A. T., Ling, M. A., Darrah, S., van Soesbergen, A. and Burgess, N. D. (2016), Status and Trends in Global Ecosystem Services and Natural Capital: Assessing Progress Toward Aichi Biodiversity Target 14. *Conservation Letters*, 9: 429–437.
- Kolbert, E. (2014). *The sixth extinction: an unnatural history*. New York: Henry Holt & Co. (esp. prologue and chs. 1-2, 8).

Class 4: The Importance and Status of Global Poverty [Th: 1/25]

- Krishna, A. (2004). Escaping poverty and becoming poor: who gains, who loses, and why? *World Development*, 32(1) 121-136. [16 p.]
- United Nations. (2015). “Goal 1: End poverty in all its forms everywhere.” <http://www.un.org/sustainabledevelopment/poverty/>
- World Bank Group. (2013). The World Bank Group Goals: End Extreme Poverty and Promote Shared Prosperity. Washington: World Bank. <http://www.worldbank.org/content/dam/Worldbank/document/WB-goals2013.pdf> [36 p. -- skim]

Recommended Readings:

- Francis. (2015). Encyclical Letter *Laudato Si'* of the Holy Father Francis on Care for our Common Home. The Vatican. see esp. 9-14 and pp. 33-39. http://w2.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si_en.pdf [11p.]

Krishna, A. (2011). *One illness way: Why people become poor and how they escape poverty*. Oxford University Press.

Turner, W. R., K. Brandon, T.M. Brooks, C. Gascon, H.K. Gibbs, K.S. Lawrence, R.A. Mittermeier, and E.R. Selig. (2012). "Global Biodiversity Conservation and the Alleviation of Poverty." *BioScience*, Vol. 62, No. 1 (January 2012), pp. 85-92 [8 p.]

Week 3

Class 5: Conservation and Development in a Warming World [Tu: 1/30]

Xu, J., et al. (2009), The Melting Himalayas: Cascading Effects of Climate Change on Water, Biodiversity, and Livelihoods. *Conservation Biology*, 23: 520–530 [11 p.]

Pecl, G.T., Araújo, M.B., Bell, et al., (2017). Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being. *Science* 355, eaai9214. [9 p.]

Recommended Readings:

Heller N.E. & Zavaleta E.S. (2009) Biodiversity management in the face of climate change: A review of 22 years of recommendations. *Biological Conservation* 142, 14-32. [19 p.]

Urban, Mark C. (2015) Accelerating extinction risk from climate change. *Science* 348: 571-573. [3 p.]

Watson, J. E. (2014). Human responses to climate change will seriously impact biodiversity conservation: it's time we start planning for them. *Conservation Letters*, 7(1), 1-2. [2 p.]

World Bank. (2010). "Understanding the Links between Climate Change and Development." *World Development Report 2010: Development and Climate Change*. Washington: World Bank. Ch. 1 pp. 37-69. [33 p.]

***Note: List of potential research paper topics to be provided today.*

Class 6: Conceptual Issues in Combining Conservation with Development [Th: 2/1]

Brandon, Katrina and Michael Wells (1992). "Planning for People and Parks: Design Dilemmas," *World Development*, 20(4): 557-570. [14 p.]

Agrawal, A., & Redford, K. (2006). Poverty, Development, and Biodiversity Conservation: Shooting in the Dark. *Wildlife Conservation Society Working Paper No. 26*. [34 p.]

Recommended Readings:

Adams, W.M., R. Aveling, D. Brockington, et al. (2004). Biodiversity Conservation and the Eradication of Poverty. *Science* Vol. 36: 1146-1149. [4 p.]

Roe, D., Fancourt, M., Sandbrook, C., Sibanda, M., Giuliani, A., & Gordon-Maclean, A. (2014). Which components or attributes of biodiversity influence which dimensions of poverty. *Environmental Evidence*, 3(3). [15 p.]

PART II. GOVERNING THE ENVIRONMENT: CONCEPTS, THEORIES, AND APPROACHES

Week 4

Class 7: Overview of Political Science and Conservation [Tu: 2/6]

Miller, D.C. and A. Agrawal, A. Forthcoming (2018). Political Science. Chapter 5 in M. Mascia (Ed.) *Understanding people and the conservation of biodiversity*. Malden, MA: Wiley-Blackwell. [52 p.]

Recommended Readings:

Adams, W.M. (2009). "The Politics of Preservation," pp. 275-298 in *Green Development: Environment and Sustainability in a Developing World*. 3rd Ed. London: Routledge.

Wilshusen, Peter. R. (2003). "Exploring the Political Contours of Conservation: A Conceptual View of Power in Practice" in *Contested Nature: Promoting International Biodiversity Conservation with Social Justice in the Twenty-first Century*. Steven R. Brechin, Peter R. Wilshusen, Crystal L. Fortwangler and Patrick C. West Eds. Albany, NY: State University of New York Press. Pp. 41-57.

Note: List of potential editorial topics to be provided today

Class 8: Environmental Governance [Th: 2/8]

Lemos, M. C., & Agrawal, A. (2006). Environmental Governance. *Annual Review of Environment and Resources*, 31(1), 297-325. [28 p.]

Recommended Reading:

Brondizio, E. S., & Le Tourneau, F. M. (2016). Environmental governance for all. *Science*, 352(6291), 1272-1273.

Paavola, J., 2007. Institutions and environmental governance: A reconceptualization. *Ecological Economics* 63, 93-103.

Armitage, D. et al. (2012). Environmental governance and its implications for conservation practice. *Conservation Letters*.

Cox, Michael, et al. (2016). Synthesizing theories of natural resource management and governance. *Global Environmental Change* 39: 45-56.

Week 5

Class 9: Common Property (1) [Tu: 2/13]

Ostrom, E. (1990). Chapters 1-2 in *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press. [57 p.]

Class 10: Common Property (2) [Th: 2/15]

Ostrom, E. (1990). Chapter 3 (pp. 58-102) in *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press. [44 p.]

Recommended Reading:

McKean, M. (2000). Common Property: What is it, what is it good for, and what makes it work? pp. 27-55. In C. Gibson, M. McKean & E. Ostrom (Eds.), *People and Forests: Communities, Institutions, and Governance*. Cambridge, MA: MIT Press.

Week 6

Class 11: Common Property (3) [Tu: 2/20]

Ostrom, E., & Cox, M. (2010). Moving beyond panaceas: a multi-tiered diagnostic approach for social-ecological analysis. *Environmental Conservation*, 37(04), 451-463. [13 p. - focus reading here]

Ostrom, E. (1990). Chapters 5-6 (pp. 143-216) in *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press. [74 p. – skim & read according to interest]

Recommended Readings:

Agrawal, 2001. Common property institutions and sustainable governance of resources, *World Development* 29 (2001) (10), pp. 1649–1672. [23 p.]

Dietz, T., Ostrom, E., & Stern, P. C. (2003). The Struggle to Govern the Commons. *Science*, 302(5652), 1907-1912. [5 p.]

Ostrom, E. (2007). A diagnostic approach for going beyond panaceas. *Proceedings of the National Academy of sciences*, 104(39), 15181-15187. [7 p.]

****RESEARCH SKETCH DUE****

Class 12: The State (1) [Th: 2/22]

Gibson, C. (1999). Chapters 1-2 (1-47). *Politicians and Poachers: The Political Economy of Wildlife Policy in Africa*. Cambridge, MA: Cambridge University Press. [47 p.]

Week 7

Class 13: The State (2) [Tu 2/27]

Gibson, C. (1999). Chapters 4-6 (119-164) *Politicians and Poachers: The Political Economy of Wildlife Policy in Africa*. Cambridge, MA: Cambridge University Press. [45 p.]

Recommended Readings:

Remaining chapters in Gibson, C. (1999). *Politicians and Poachers*.

Peluso, N.L. (1993). Coercing conservation? The politics of state resource control. *Global Environmental Change* 3(2): 199-217. [18 p.]

Class 14: The State (3) [Th 3/1]

Scott, James C. (1998). “Introduction,” “Nature and Space,” and “Authoritarian High Modernism” pp. 1-53 and 87-102 In *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Yale University Press. [69 p.]

Recommended Reading:

Other chapters in Scott, J.C. (1998). *Seeing Like a State*.

Li, T. M. (2005). Beyond" the state" and failed schemes. *American anthropologist*, 383-394.

Burgess, R., Hansen, M., Olken, B. A., Potapov, P., & Sieber, S. (2012). The Political Economy of Deforestation in the Tropics. *The Quarterly Journal of Economics*, 127(4), 1707-1754.

Week 8

Class 15: Decentralizing Environmental Governance [Tu 3/6]

- Nelson, F., & Agrawal, A. (2008). Patronage or participation? Community-based natural resource management reform in sub-Saharan Africa. *Development and Change*, 39(4), 557-585. [29 p.]
- Mohammed, A.J., Inoue, M. (2014). A Modified Actor-Power-Accountability Framework (MAPAF) for analyzing decentralized forest governance: Case study from Ethiopia. *Journal of Environmental Management* 139, 188-199. [12 p.]

Recommended Readings:

- Agrawal, A., & Ribot, J. (1999). Accountability in Decentralization: A Framework with South Asian and West African Cases. *Journal of Developing Areas*, 33(4), 473-502. [30 p.]
- Ribot, J. C., Lund, J. F., & Treue, T. (2010). Democratic decentralization in sub-Saharan Africa: its contribution to forest management, livelihoods, and enfranchisement. *Environmental Conservation*, 37(01), 35-44. [10 p.]

Class 16: Communities and Conservation (1) [Th: 3/8]

Film – “Milking the Rhino.” (2008).

****EDITORIAL ASSIGNMENT DUE****

Week 9

Class 17: Communities and Conservation (2) [Tu: 3/13]

Discussion of “Milking the Rhino” and Community Conservation role-playing exercise.

Required Reading:

- Agrawal, Arun and Clark C. Gibson (1999). “Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation” *World Development* 27(4): 629-649. [20 p.]

Recommended Readings:

- Western, D. and R.M. Wright. (1994). *Natural Connections: Perspectives in Community-based Conservation*. Washington: Island Press. (Ch 1 and concluding chs. (23-26) and ch. by Murphree (18) of particular interest. See also case studies (chs. 2-13) as interested).
- Berkes, F. (2004). Rethinking community-based conservation. *Conservation biology*, 18(3), 621-630. [11 p.]
- Berkes, F. (2007). Community-based conservation in a globalized world. *Proceedings of the National academy of sciences*, 104(39), 15188-15193. [6 p.]

Class 18: The Private Sector (1): Market Mechanisms for Sustainability [Th: 3/15]

Cashore, B., Elliott, C., Pohnan, E., Stone, M., Jodoin, S., 2016. Achieving sustainability through market mechanisms, in: Panwar, R., Kozak, R., Hansen, E. (Eds.), *Forests, Business and Sustainability*. Routledge, Milton Park, UK, pp. 45-69. [25 p.]

Recommended Readings:

Alvarado-Quesada, I., Hein, L., Weikard, H.-P., (2014). Market-based mechanisms for biodiversity conservation: a review of existing schemes and an outline for a global mechanism. *Biodiversity and Conservation* 23, 1-21. [22 p.]

Cashore, B., 2002. Legitimacy and the Privatization of Environmental Governance: How non-state Market Driven Governance Systems Gain Rule Making Authority. *Governance* 15, 503-529. [27 p.]

Week 10

****SPRING BREAK – NO CLASS MARCH 20 & 22****

Week 11

Class 19: The Private Sector (2): Payments for Ecosystem Services [Tu: 3/27]

Ferraro, P.J. and A. Kiss. (2002). “Direct payments to conservation biodiversity.” *Science* 298: 1718-1719. [2 p.]

Liu, J., Li, S., Ouyang, Z., Tam, C., & Chen, X. (2008). Ecological and socioeconomic effects of China's policies for ecosystem services. *Proceedings of the National Academy of Sciences*, 105(28), 9477-9482. [6 p.]

Guerry, A. D., Polasky, S., Lubchenco, J., et al. (2015). Natural capital and ecosystem services informing decisions: From promise to practice. *Proceedings of the National Academy of Sciences*, 112(24), 7348-7355. [8 p.]

Recommended Readings:

Pagiola, S., Arcenas, A., & Platais, G. (2005). Can payments for environmental services help reduce poverty? An exploration of the issues and the evidence to date from Latin America. *World development*, 33(2), 237-253. [17 p.]

Pagiola, S. (2008). Payments for environmental services in Costa Rica. *Ecological economics*, 65(4), 712-724.

Lele, S., et al. (2013). Ecosystem services: origins, contributions, pitfalls, and alternatives. *Conservation and Society*, 11(4), 343.

Redford, K. H., & Adams, W. M. (2009). “Payment for Ecosystem Services and the Challenge of Saving Nature.” *Conservation Biology*, 23(4), 785-787. [3 p.]

Calvet-Mir, L., Corbera, E., Martin, A., Fisher, J., & Gross-Camp, N. (2015). Payments for ecosystem services in the tropics: a closer look at effectiveness and equity. *Current Opinion in Environmental Sustainability*, 14, 150–162.

Class 20: Financing Global Conservation and Development [Th: 3/29]

Clapp, J. and P. Dauvergne. (2011). “Global Financing and the Environment” (pp. 193-225 + p. 16-17, ch. 1 on “environmental perspectives.” In *Paths to a Green World: The Political Economy of the Global Environment*. Cambridge, MA: The MIT Press. [35 p.]

- Waldron, A., Miller, D.C., Redding, D., Mooers, A., Kuhn, T.S., Nibbelink, N., Roberts, J.T., Tobias, J.A., Gittleman, J.L. (2017). Reductions in global biodiversity loss predicted from conservation spending. *Nature* 551, 364-367 [4 p.]
- Lindsey, P. A., Balme, G. A., Funston, P. J., Henschel, P. H. and Hunter, L. T.B. (2016), Life after Cecil: channeling global outrage into funding for conservation in Africa. *Conservation Letters* (9): 296–301. [6 p.]

Recommended Reading:

- Hein, L., Miller, D. C., & de Groot, R. (2013). Payments for ecosystem services and the financing of global biodiversity conservation. *Current Opinion in Environmental Sustainability*, 5(1), 87-93. [7p.]
- McCarthy, D. P., et al. (2012). Financial costs of meeting global biodiversity conservation targets: current spending and unmet needs. *Science*, 338 (6109), 946-949. [4 p.]
- Miller, D. C., Agrawal, A., & Roberts, J. T. (2013). Biodiversity, governance, and the allocation of international aid for conservation. *Conservation Letters*, 6(1), 12-20. [9 p.]
- Gill, D.A., Mascia, M.B., Ahmadi, G.N., Glew, L., Lester, S.E., Barnes, M., Craigie, I., Darling, E.S., Free, C.M., Geldmann, J., et al. (2017). Capacity shortfalls hinder the performance of marine protected areas globally. *Nature* 543, 665–669.

PART III. ANALYZING CONSERVATION AND DEVELOPMENT SYNERGIES AND TRADE-OFFS

Week 12

Class 21: Parks and Poverty [Tu: 4/3]

- Naughton-Treves, L., Holland, M. B., & Brandon, K. (2005). “The Role of Protected Areas in Conserving Biodiversity and Sustaining Local Livelihoods.” *Annual Review of Environment and Resources*, 30(1): 219-252. [33 p.]
- Andam, K. S., Ferraro, P. J., Sims, K. R., Healy, A., & Holland, M. B. (2010). Protected areas reduced poverty in Costa Rica and Thailand. *Proceedings of the National Academy of Sciences*, 107(22), 9996-10001. [6 p.]

Recommended Reading:

- Naughton-Treves, L., Alix-Garcia, J., & Chapman, C. A. (2011). “Lessons about parks and poverty from a decade of forest loss and economic growth around Kibale National Park, Uganda.” *Proceedings of the National Academy of Sciences*, 108(34), 13919-13924.

Class 22: Analyzing Protected Area Impacts [Th: 4/5]

- Petursson, J.G., Vedeld, P. (2015). The “nine lives” of protected areas. A historical-institutional analysis from the transboundary Mt Elgon, Uganda and Kenya. *Land Use Policy* 42, 251-263. [13 p.]
- Cumming, G. S., et al. (2015). Understanding protected area resilience: a multi-scale, social-ecological approach. *Ecological Applications*, 25(2), 299-319. [21 p.]

Recommended Reading:

- Ferraro, Paul J., Merlin M. Hanauer, and Katharine RE Sims. "Conditions associated with protected area success in conservation and poverty reduction." *Proceedings of the National Academy of Sciences* 108.34 (2011): 13913-13918. [6 p.]
- Oldekop, J. A., G. Holmes, W. E. Harris and K. L. Evans (2016). "A global assessment of the social and conservation outcomes of protected areas." *Conservation Biology*
- Woodhouse, E., Homewood, K.M., Beauchamp, E., Clements, T., McCabe, J.T., Wilkie, D., Milner-Gulland, E.J., 2015. Guiding principles for evaluating the impacts of conservation interventions on human well-being. *Philosophical Transactions of the Royal Society B: Biological Sciences* 370.

Week 13

Class 23: Analyzing Multiple Outcomes [Tu: 4/10]

- Agrawal, A., and Chhatre, A. (2011). "Against mono-consequentialism: Multiple outcomes and their drivers in social-ecological systems." *Global Environmental Change*, 21(1), 1-3.
- Miranda JJ, Corral L, Blackman A, Asner G, and Lima, E. (2016). Effects of Protected Areas on Forest Cover Change and Local Communities: Evidence from the Peruvian Amazon. *World Development* 78: 288-307. [20 p.]

Recommended Reading:

- Persha, L., Agrawal, A., & Chhatre, A. (2011). "Social and Ecological Synergy: Local Rulemaking, Forest Livelihoods, and Biodiversity Conservation." *Science*, 331(6024), 1606-1608. [3 p.]
- Agrawal, A., & Benson, C. S. (2011). Common property theory and resource governance institutions: strengthening explanations of multiple outcomes. *Environmental Conservation*, 38(02), 199-210. [22 p.]

Class 24: No class meeting. [Th: 4/12]

****No class meeting, but RESEARCH PAPER BIBLIOGRAPHY, ARGUMENT AND PRELIMINARY FINDINGS DUE BY 5:00pm today via Compass ****

Week 14

Class 25: Landscape Approaches (1) [Tu: 4/17]

- Sayer, J., Sunderland, T., Ghazoul, J., Pfund, J. L., Sheil, D., Meijaard, E., ... & Buck, L. E. (2013). Ten principles for a landscape approach to reconciling agriculture, conservation, and other competing land uses. *Proceedings of the national academy of sciences*, 110(21), 8349-8356. [8 p.]
- Milder, J. C., A. K. Hart, P. Dobie, J. Minai, and C. Zaleski. (2014). Integrated landscape initiatives for African agriculture, development, and conservation: a region-wide assessment. *World Development*. 54:68-80. [13 p.]

Recommended Readings:

- Adams, W. M. (2013). "Conservation in the anthropocene: biodiversity, poverty and sustainability." In Roe et al. Eds. *Biodiversity conservation and poverty alleviation: exploring the evidence for a link*, 304-315. [12p.]

Class 26: Landscape Approaches (2) [Th: 4/19]

Reed, J., van Vianen, J., Barlow, J., Sunderland, T. (2017). Have integrated landscape approaches reconciled societal and environmental issues in the tropics? *Land Use Policy* 63, 481-492. [12 p.]

Recommended Readings:

Freeman, O. E., Duguma, L. A., and Minang, P. A. (2015). Operationalizing the integrated landscape approach in practice. *Ecology and Society*, 20(1) [24 p.]

Harvey, C. A., et al. (2014). Climate-Smart Landscapes: Opportunities and Challenges for Integrating Adaptation and Mitigation in Tropical Agriculture. *Conservation Letters*, 7(2), 77-90. [14 p.]

Lambin, E. F., et al. (2014). Effectiveness and synergies of policy instruments for land use governance in tropical regions. *Global Environmental Change*, 28, 129-140. [11p.]

Week 15

Class 27 & 28: Student Research Presentations [Tu: 4/24 & Th: 4/26]

*****No readings. Class time will be devoted to in-class presentations of student research papers.***

Week 16:

Class 29: Student Research Presentations and Class Wrap Up [Tu: 5/1]

*****No readings. Class time will be devoted to in-class presentations of student research papers (as needed) and class wrap up.***

*****FINAL RESEARCH PAPERS MUST SUBMITTED IN HARD COPY AND ELECTRONICALLY BY THURSDAY, MAY 10 AT 5:00 PM CDT*****