**Anthro 166/266 Winter 2017**

**Political Ecology of Tropical Land Use Change:**

**Conservation, Natural Resource Extraction & Agribusiness**

Tuesdays & Thursdays @ 1:30-2:50 pm

Main Quad School of Education 200, Room 343

**Credit Hours:** **3-5**

**Instructor:** Lisa M. Curran [lmcurran@stanford.edu](mailto:lmcurran@stanford.edu)

**Offices:** Dept of Anthropology, Serra Mall Bldg 50 Room 52 K & Yang & Yamazaki Environment & Energy Building (Y2E2) Room 373, Cell: 203-606-4513; Please email or text whenever possible please.

**Lisa’s Office Hours:** Thursdays 3:30-5:30pm inY2E2 Room 373 , after class Tuesdays from 3:15-4:15 in Anthro Bldg 50 Room 52K; or by appointment.

**Course Description Bulletin:** The state, private sector, development agencies, and NGOs in development and conservation of tropical land use. Focus is on the socioeconomic and political drivers of resource extraction and agricultural production. Case studies used to examine the local-to-global context from many disciplines. Are maps and analyses used for gain, visibility, accountability, or contested terrain? How are power dynamics, land use history, state-private sector collusion, and neoliberal policies valued? What are the local and extra-local responses?

**CLASS OBJECTIVES**

The overarching objective is to develop a interdisciplinary critical assessment of tropical land and natural resource issues.

Through diverse readings from both the natural and social science literature, this course aims to provide students with a foundation in both political ecology and land change science. We explore these distinctive epistemologies and their convergence and divergence as well as synergies primarily focused on social-ecological studies in tropical ecosystems.

By examining the drivers and outcomes of land use change through a political ecology ‘lens’, we acquire not only different ‘ways of knowing/ways of seeing’, but gain an appreciation for the diverse perspectives, critical framing of questions addressed along with methods and models used to generate both scientific studies and applications to policies and environmental justice issues.

Topical areas include common property theory; interactions of the State, private sector, local to global markets and the environment; socio-legal and non-governmental approaches to natural resource policy; environmental discourses and land use history as well as central conceptual themes in land use change and political ecology.

Major conceptual (theoretical) frameworks are explored through seminal or foundational readings coupled with exemplary case studies where these approaches are applied.

Through their selected focal case study in their final paper, students will then apply these frameworks and methods. These cases serve to evaluate natural resource use, conservation, and land use change in dynamic and often contested arenas.

**CLASS REQUIREMENTS**

**1) Synthesis and critiques of weekly assigned readings as well as tasked with developing class discussion questions or topics based on these readings.**

Although all participants are required to read the assigned materials each week, each class member is assigned only two weeks for the required written submissions.

**These assignments require ~2-4 pages of text submitted per week (2 pg/class X 2 weeks = ~4 pg/ week): 30%**

**2) Class participation: 15%**

**3) Class presentation of final paper: 5%**

**4) Final paper: 50%**

**Final Paper Developed in Four Stages**

1) Please submit **exploratory paper topic interests** via Canvas dropbox. Only a few sentences required that indicate your interests, potential topic, focal area or resource of interest and regional/scale of analysis submit to Canvas dropbox by **8 Feb 2017.**

2) Please submit your **general outline & approach** with key issues and selected bibliography by **20 February 2017**. Submit to Canvas dropbox. These submissions will **\*\*not\*\*** be graded, but will provide Lisa with sufficient info to better assist and suggest options, readings and provide some specific individual advice.

3) Arrange to **meet with Lisa** for ~ 45 minutes to discuss paper direction, content, and critical literature for both final paper (3-5 credits) as well as book review if elected 4 or 5 credits. These individual meetings are scheduled from February through early March as needed.

3) **Prepare and present a brief presentation summary /synthesis** (~ 10 min) of your findings/approach/insights during our **final class meetings: 14/16 March 2017.** Then aim to receive questions, insights, and other comments from the class that may be incorporated into the final paper submission.

**4) Final Papers: Due on or before 20 March 2017 11:59 pm.**

*Please see detailed handouts distributed for the final paper and book review assignments.*

**If elected 4/5 credit units:** Additional reading monograph/recent book/several edited chapters and then a written 2-4 pg book review following book review guidelines distributed. Depending on your background and interests, I will offer potential suggestions for a suitable text. Please review the detailed book review guidelines provided for this assignment.

**5) Book review is due on or before the final paper deadline: 20 March 2017 11:59 pm.**

**GRADING POLICY**

**Grading Policy:** If you have any conflict with this date for final paper submission, please discuss potential arrangements with Lisa as soon as possible.

Please be forewarned your written commentaries and final paper grade will be reduced by **½ grade (i.e., B to B-)** every **24 hrs post deadline**. Of course, life does happen while we are busy making other plans – so please text/call/email me **\*as soon as\*** you encounter any unforeseen issue or conflict. I understand and can adjust to any major medical or personal crisis etc. Please note that my final grades must be submitted by **28 March 2017.**

**Students with Documented Disabilities**  
Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Office of Accessible Education (OAE).  Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations.  The OAE is located at 563 Salvatierra Walk (phone: 723-1066, URL: [http://oae.stanford.edu](https://oae.stanford.edu/)).

**CLASS STRUCTURE & ORGANIZATION**

**Weekly Format**

This combined lecture/ seminar course emphasizes critical reading, engaged discussion, and exploration of interdisciplinary approaches and methods used in both land use change science and political ecology.

Lisa will present an informal ~45-50 min topical overview followed by ~10 minute break. For weeks ~1-3, Lisa either leads a 30-45 minute class discussion or continues with another presentation. After week 3, assigned lead discussants will be responsible for preparing a synthesis and critique of the readings and lead class discussion (~30-45 minutes) following the initial lecture or presentation.

Presenters should not summarize the readings *per se*, but should address central concepts and comment on what they deem as the strengths and weaknesses of the material. Presenters should offer questions to provoke and stimulate class discussions. All participants will be responsible for two class presentations. Weekly reading discussion comments **must also be uploaded to the class website by late Sunday evening so Lisa will be able to read and comment on these assignments before class on Tuesday/Thursday**.

I prefer to receive any questions or requested input for class by Sunday evening before Tuesday’s class and then Wednesday evening before Thursday’s class.

**LECTURE SCHEDULE: TOPICS & READINGS**

**\*\* = Readings Required; Others Background**

**Week 1 January 10/12**

**Introductions, Course Mechanics & Overview: What is Political Ecology?**

\*\*Nygren, A. and Rikoon, S. 2008. Political ecology revisited: Integration of politics and ecology does matter. *Society & Natural Resources* 21: 767-782.

**Land Use Change, Political Ecology & ‘Sustainability Science’**

\*\*Turner, II B.L., P. Robbins 2008. Land use change science and political ecology: Some differences and implications for sustainability science. *Annual Review Environment & Resources* 33:295-316.

Turner II, B.L., E.F. Lambin, A. Reenberg. 2008. The emergence of land change science for global environmental change and sustainability. *Proc. Natl. Acad. Sci. USA* 104:20666–71.

Lestrelin, G., Castella, J. and J. Fox. 2013. Forest transitions in Southeast Asia: Synergies and shortcomings in land-change science and political ecology. Pp. 48-65. In: C. Braanstorm and J. Vadjunec editors. *Land change science, political ecology, and sustainability: Synergies and divergences.* Earthscan, London

**Lecture: Seeing the Landscape through PE Lens**

1. ***Co-opting the Masters’ Tools (GIS, remote sensing): Social Meanings & Power of Maps***

**The Pristine Myth**

\*\*Doolittle, A. 2010. Stories and maps, images and archives: Multi-method approach to the political ecology of Native property rights and natural resource management in Sabah, Malaysia. *Environmental Management* 45:67-81.

\*\*Heckenberger, M., et al. 2003. Amazonia 1492: Pristine forest or cultural parkland? *Science* 301:1710-1713.

\*\*Heckenberger, M.J., J. C. Russell, C. Fausto, J.R. Toney, M. J. Schmidt, E. Pereira, B. Franchetto, A. Kuikuro 2008. Pre-Columbian urbanism, anthropogenic landscapes, and the future of the Amazon. *Science* 321:1214-1217 DOI: 10.1126/science.1159769

\*\*Ellis, E.C., & R. Ramankutty. 2008. Putting people in the map: anthropogenic biomes of the world. *Frontiers in Ecology* 6: 439-447.

\*\*Ellis, E.C., Goldewijk, S. Siebert, D. Lightman, N. Ramankutty. 2010. Anthropogenic transformation of the biomes, 1700 to 2000. *Global Ecology & Biogeography* 19: 589-606.

**Week 2 January 17/19**

**Lecture: Conservation Protected Areas & Political Ecology**

**Conservation, Coercion & Control**

1. ***Critiquing Conservation: International Biodiversity Conservation NGOs***

\*\*Adams, W. M. & J. Hutton. 2007. People, parks and poverty: Political ecology of biological conservation. *Conservation and Society* 5: 147-183.

\*\*Brechin, S.R. et al. 2002. Beyond the square wheel: Toward a more comprehensive understanding of biodiversity conservation as social and political process. *Society & Natural Resources*. 15: 41-64.

\*\*Adams, W.M., et al. 2004. Biodiversity conservation and the eradication of poverty. *Science* 306:1146-1149.

\*\*Sandbrook, et al. 2013. Social research and biodiversity conservation. C*onservation Biology* 2013 27: 1487-1490.

\*\*Hirsch, P.D., W.M. Adams, J.P. Brosius, A. Zia, N. Bariola, J.L. Dammert. 2011. Acknowledging conservation trade-offs and embracing complexity. *Conservation Biology* 25: 259–264.

1. ***Political Ecology as ‘Hatchet’: Contesting Dominant Discourse***

**Land Degradation & Society**

\*\*Van Vliet, N., et al. 2012. Trends, drivers and impacts of changes in swidden cultivation in tropical forest-agricultural frontiers: A global assessment. *Global Environmental Change* 22: 418-429.

\*\*Fox, J., et al. 2009. Policies, political-economy, and swidden in Southeast Asia. *Human Ecology*: 37:305–322.

Lestrelin, G. 2010. Land degradation in the Lao PDR: Discourses and policy. *Land Use Policy* 27: 424-439.

**Vulnerability & Hazards**

\*\*Simon, G.L., and S. Dooling. 2013. Flame and fortune in California: the material and political dimensions of vulnerability. *Global Environmental Change* 23: 1410-1423.

**Week 3 January 24/26**

**Lecture: Markets & Property in a Globalized World**

1. ***‘Commodification’ of Nature: Accumulation by Dispossession & Marginalization***

\*\*McCarthy, J. and S. Prudham. 2004. Neoliberal nature and the nature of neoliberalism. *Geoforum* 35: 275-283.

\*\*Kremen C. et al. 2000. Economic incentives for rain forest conservation across scales. *Science* 288:1828-1832.

\*\*Leach, M., R. Mearns, and I. Scoones.1999. Environmental Entitlements: Dynamics and institutions in community-based natural resource management. *World Development 27:* 225-247.

Bebbington, A. 1999. Capitals and capabilities: A framework for analyzing Peasant viability, rural livelihoods and poverty. *World Development* 27:2021-2044.

1. ***‘Property Rights’ & Communal Forests, Common Pooled Resources, State & Privatization***

\*\*Ribot, J. & N. Peluso. 2003. Theory of access. *Rural Sociology* 68:153–181.

\*\*Adams, W.M., D. Brockington, J. Dyson, B. Vira. 2003. **Managing tragedies: Understanding conflict over common pool resources**. Science **302:** 1915-1917.

\*\*Agrawal, A., et al. 2008. Changing governance of the world’s forests. *Science* 320:1460-2.

\*\*Sikor, T., C. Lund. 2009. Access and property: A question of power & authority. *Development and Change* 40: 1-22.

Bebbington, A.J., S.P.J. Batterbury. 2001. Transnational livelihoods and landscapes: Political ecologies of globalization. *Ecumene* 8:369-380.

**Week 4 January 31/February 2**

**Lecture: Frontiers & Globalization**

1. ***Frontiers: Social, Political and LUC Dynamics***

***Grand Theory? LUC Transitions –Intensification Revisited***

\*\*Soares-Filho, B., D.C. Nepstad, L.M. Curran, et al. 2006. Modelling conservation in the Amazon basin. *Nature* 440:520-523.

(context, overview, background)

\*\*Rodrigues, A.S.L., et al. 2009. Boom-and-bust development patterns across the Amazon deforestation frontier. *Science* 324:1435-1437.

\*\*Pacheco, P. 2012. Actor and frontier types in the Brazilian Amazon: Assessing interactions and outcomes associated with frontier expansion. *Geoforum* 43: 864-874.

\*\*Rudel, T.K., et al. 2009. Agricultural intensification and changes in cultivated areas. *PNAS* 106: 20675-20680.

1. ***Transnational ‘Land Grabs’ & the State with Globalization***

\*\*Zoomers A. 2010. Globalisation and the foreignisation of space: Seven processes driving the current land grab. *J. of Peasant Studies* 37:429-447.

\*\*Lambin, E.F., P. Meyfroit. 2011. Global land use change, economic globalization, and the looming land scarcity. *PNAS* 108:19127-29.

\*\* Seto, K., et al. 2012. Urban land teleconnections and sustainability. *PNAS* 109:7687–7692.

\*\*Meyfroidt, P. 2016. Approaches and terminology for causal analysis in land systems science*. Journal of Land Use Science*. 11: 501–522. doi:10.1080/1747423X.2015.1117530

Friis, C., J. Ø. Nielsen, I. Otero, H. Haberl, J. Niewöhner & P. Hostert. 2016. From teleconnection to telecoupling: taking stock of an emerging framework in land system science. *Journal of Land Use Science*. 11:131-153, DOI: 10.1080/1747423X.2015.1096423

**Week 5 Feb 7/9**

**Case Study 1: INDONESIA part I**

**Indonesian Resource and Land Use: Logging, Mining & Transmigration**

***Government and Private Sector Collusion***

***Tuesday***

Runyon, C. 1999. An Unfinished Revolution*. World Watch* 12 (January/February): 34-8. (context, overview)

\*\*Ascher, W. 2000. Understanding why governments in developing countries waste natural resources. *Environment* 42: 8-18.

\*\* Gellert, P.K. 2003. Renegotiating a timber commodity chain: Lessons from Indonesia on the political construction of global commodity chains. *Sociological Forum* 18:53-84.

Ross, M. L. 2001. “Conclusion: Rent seeking and rent seizing” pp. 190-203. In: *Timber Booms and Institutional Breakdown in Southeast Asia.* Ross, M.L. Cambridge University Press.

Robbins, P. 2000. The rotten institution: corruption in resource managemen.t *Political Geography* 19:423–443.

\*\*Sunderlin, W. et al. 2001. Economic crisis, small-farmer well-being and forest cover change in Indonesia. *World Development* 29: 767-782.

\*\*Kolstad, I., T. Søreide. 2009. Corruption in natural resource management: Implications for policy makers. *Resources Policy* 34:214–226.

***Logging & Fire: No Ranching***

Siegert, F., et al. 2001. Increased damage from fires in logged forests during droughts caused by El Niño. *Nature:* 414:437-440.

\*\*Curran, L.M., et al.2004.Lowland forest loss in protected areas of Indonesian Borneo. *Science* 303: 1000-1003. Plus SOM.

**Case Study 1: INDONESIA part II**

**Indonesia & Malaysia Oil Palm Plantations:**

***Agribusiness & Smallholders***

***Thursday***

\*\*Carlson, K.M.,L.M. Curran, G.P. Asner*,*A.M. Pittman, S.N. Trigg, J.M. Adeney.2013. Carbon emissions from forest conversion by Kalimantan oil palm plantations, 1990-2020**.** *Nature Climate Change* 3:283-287.

\*\*Carlson, K.M.,L.M. Curran, D. Ratnasari, A.M. Pittman, B.S. Soares-Filho, G.P. Asner, S.N. Trigg, D.L.A. Gaveau, D. Lawrence, H.O. Rodrigues. 2012. Committed C emissions, deforestation, and community land conversion from oil palm plantation expansion in West Kalimantan, Indonesia. *Proc. of Nat. Acad. Sci*. 109:7559-7564.

\*\*McCarthy, J., et al. 2012. Swimming upstream: Local Indonesian production networks in “globalized” palm oil production. *World Development* 40:555-569.

\*\*Margono, B., et al. 2014. Primary forest cover loss in Indonesia over 2000–2012.*Nature Climate Change* 4: 730-735.

**Week 6 Feb 14/16**

**CASE STUDY 2: BRAZIL part I**

***Tuesday***

**Land Use Change & Deforestation**

\*\*Lapola, D.M., et al. 2014. Pervasive transition of the Brazilian land-use system (Review). *Nature Climate Change* 4:27-35.

Davidson, E.A., et al. 2012. The Amazon Basin in transition. *Nature* 481:321-328. (context, overview)

\*\*Hecht, S. 2012. From eco-catastrophe to zero deforestation? Interdisciplinarities, politics, environmentalisms and the decline of clearing in Amazonia. *Environmental Conservation* 39:4-19.

***Thursday***

**Logging, Fire & Cattle Ranching**

\*\*Nepstad et al. 1999. Large-scale impovishment of Amazonian forests by logging and fire. *Nature* 398:505-508.

Asner, G.P. et al. 2006. Condition and fate of logged forests in the Brazilian Amazon. *PNAS* 103:12947-12950.

Curran, L.M., S. D. Trigg. 2006. Sustainability science from space: Quantifying forest disturbance and land use in the Amazon. *Proc. of Nat. Acad. Sci.* 103:12663-12664.

\*\*Pachero, P., R. Poccard-Chapius. 2012. The complex evolution of cattle ranching development amid market integration and policy shifts in the Brazilian Amazon. *Annals of the Assoc of American Geographers* 102:1366-1390.

\*\*Bowman, M.S., et al. 2012. Persistence of cattle ranching in the Brazilian Amazon: A spatial analysis of the rationale for beef production. *Land Use Policy* 29:558-568.

**Week 7: Feb 21/23**

**CASE STUDY 2: BRAZIL part II**

***Tuesday***

**Agribusiness & Policies**

**Ag & LU Policies**

Chaddad, I.R. and M.S. Junk 2006. Evolution of agricultural policies and agribusiness development in Brazil. *Choices* 21:85-91.

\*\*Angelsen, A. 2010. Policies for reduced deforestation and their impact on

agricultural production. *PNAS* 107: 19639-19644.

\*\*Macedo, M.N. R.S. DeFries, D.C. Morton, C.M. Stickler, G.L. Galford, Y.E. Shimabukuro. 2012. Decoupling of deforestation and soy production in the southern Amazon during the late 2000s. *Proceedings of the National Academy of Sciences*: 109: 1341–1346.

Brown, J.C. and M. Purcell. 2004. There’s nothing inherent about scale: Political ecology, the local trap, and the politics of development in the Brazilian Amazon. *Geoforum* 36: 607-624.

\*\*Nepstad, D.C., et al. 2014. Slowing Amazon deforestation through public policy and interventions in beef and soy supply chains. *Science* 344*:*1118-1123*.*

\*\*Arima, E.Y., P. Barreto, E. Araujo, B. Soares-Filho. 2014. Public policies can reduce tropical deforestation: Lessons and challenges from Brazil. *Land Use Policy 41: 465-473*

***Thursday***

**Land Use and Market-based Financial Incentives: Carbon Trading & Reducing Emissions from Deforestation and Degradation (REDD)**

Gullison, R.E, P. Frumhoff, J. Canadell, C. B. Field, D.C. Nepstad, K. Hayhoe, R. Avissar, L.M. Curran, P. Friedlingsten, C.D. Jones and C. Nobre. 2007.Tropical forests and climate policy. *Science* 316:985-986.

(context, overview)

Phelps, J. et al. 2010. Does REDD+ threaten to recentralize forest governance?

*Science* 328:312-313.

\*\*Stickler, C.M., et al. 2009. The potential ecological costs and co-benefits of REDD: a critical review and case study from the Amazon region. *Global Change Biology* 15:2803-24.

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

\*\*Luttrell, C., et al. 2014. The political context of REDD in Indonesia: Constituencies for change. *Environmental Science & Policy* 35:67-75.

\*\*Naughton-Treves and K. Wendland. 2014. Land tenure and tropical forest management. *World Development* 55:1-6 (Special volume intro)

\*\*Brockhaus, M., M. Di Gregorio, R. Carmenta. 2014.REDD+ policy networks: exploring actors and power structures in an emerging policy domain. *Ecology and Society* **19**(4): 29. http://dx.doi.org/10.5751/ES-07098-190429

**Week 8 Feb 28/March 2**

***Tuesday***

**‘Sustainable’ Global Agribusiness Practices & Multi-stakeholder Governance (Roundtables of Sustainable Soybeans and Oil Palm - RSPO)**

\*\*Schouten, G., P. Leroy, P. Glasbergen. 2012. On the deliberative capacity of private multi-stakeholder governance: The Roundtables on Responsible Soy and Sustainable Palm Oil. *Ecological Economics* 83:42-50.

\*\*Newton, P., A. Agrawal, L. Wollenberg. 2013. Enhancing the sustainability of commodity supply chains in tropical forest and agricultural landscapes. *Global Environmental Management* 23:1761-1772.

\*\*Bryant, R.L., M. K. Goodman. 2004. Consuming narratives: the political ecology of ‘alternative’ consumption. *Trans. of the Institute of British Geographers* 29:

\*\*Dauvergne, P., J. Lister. 2010. The prospects and limits of ecoconsumerism: Shopping our way to less deforestation? *Organization & Environment* 23:132-154.

***Thursday***

**Social Movements & Civil Society**

\*\*Peluso, N., S. Afiff, N.F. Rachman. 2008. Claiming the grounds for reform: Agrarian and environmental movements in Indonesia. *Journal of Agrarian Change.* 8:377–407.

Fearnside, P. M. 2008. The roles and movements of actors in the deforestation of Brazilian Amazonia. *Ecology and Society* **13**(1): 23. [online] URL: <http://www.ecologyandsociety.org/vol13/iss1/art23/>

\*\*Simmons, C., Walker, R., Perz, S., Aldrich, S., Caldas, M., Pereira, R., Leite, F., Fernandes, L.C., Arima, E., 2010. Doing it for themselves: direct action land reform in the Brazilian Amazon. *World Development* 38: 429–444.

\*\*Schwartzmann, S. et al. 2010. Social movements and large-scale tropical forest protection on the Amazon frontier: Conservation from chaos. *Journal of Environment & Development* 19: 274-299.

**Week 9 Mar 7/9**

**Synthesis & Discussions**

***Tuesday***

\*\*Muller, D., Z. Sun, T. Vongvisouk, D. Pflugmacher, J. Xu, O. Mertz. 2014. Regime shifts limit the predictability of land-system change. *Global Environmental Change* 28:75-83.

\*\*Muller, D. 2016. Research frontiers in land use science. *Journal of Land Use Science* 11: 619-622.

\*\*Fabinyi, M., L. Evans, and S. J. Foale. 2014. Social-ecological systems, social diversity, and power: Insights from anthropology and political ecology. *Ecology and Society* **19**(4): 28. http://dx.doi.org/10.5751/ES-07029-190428

\*\*Wisner, B. 2015. Speaking truth to power: A personal account of activist political ecology. Pp 53-63. IN: Th*e Routledge Handbook of Political Ecology.* Editors: G. Bridge, J. McCarthy. Routledge, New York.

***Thursday***

***TBD or presentations?***

**Week 10 Mar 14/16 Class Presentations & Discussions**