GLOBAL FORESTS
FOR 4060
Spring 2019

Instructor: Dr. Karen A. Kainer
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210 Newins-Ziegler

Course credits: 3

Meeting periods: Tuesday: Periods 3 & 4; 9:35-11:30 (NZ 219)
Thursday: Period 8; 3:00-3:50 (NZ 222)

Prerequisites: None

Course readings:
Select articles, book chapters and videos: See readings list below.

Course description:
Since humans began migrating out of Africa some 50,000 years ago, the extent of global forests has been reduced by about half. Is this trend continuing across our planet? How are these remaining forests (and new ones that have regenerated) used? conserved? managed? and by whom? What role do *you* play in these dynamics?

This course examines major global trends in forest extent, use and conservation. One module highlights the Amazon as a case study for exploring the complexity of forest interests (from multinational corporations to local rubber tappers) and how these interests have driven tropical forest use, conversion, and conservation over time. Another explores ongoing strategies to sustain forests through markets and other mechanisms. Students will examine forest products found in Gainesville and the road they travelled to get here - to illuminate global linkages and differences in global contexts (environmental, socioeconomic and political) under which forest products are harvested and transformed. Teaching methods will emphasize experiential learning.

Learning objectives:
Upon completion of this course, students will have:

- Examined the historical and current status of forests and forest resources on a global scale;
- Evaluated major global trends in forest ownership, resource use, and conservation and management strategies;
- Researched and presented information on a forest biome and representative country;
- Examined the Amazon as a case study for exploring the complexity of forest use and conservation;
- Explored in depth one Amazonian land use;
- Developed and presented a value chain analysis of one imported forest product.
- Attended and reviewed at least 2 current events related to global forests

Student Evaluation:

(1)	***Readings comments***		20%
(2)	***In-class participation***		5%
(3)	***2-minute presentation***		5%
(4)	***Country report***		
	a. In-class presentation	15%	
	b. Executive summary	5%	
			20%
(5)	***Amazonian land uses***		
	a. Essay	15%	
	b. Lightening presentation	5%	
			20%
(6)	***Value chain analysis***		25%
(7)	***Event participation***		5%
	TOTAL		**100%**

Grading

94 – 100% = A
90 – 93% = A-
87 – 89% = B+
80 – 86% = B
77 – 79% = C+
70 – 76% = C
60 – 69% = D
< 60% = E

SCHEDULE OVERVIEW

	Topic	**Assignment due**
Jan 8	***Introduction***	
10	***Who are we? How did we get here?***	2-min presentation
THE BIG PICTURE		
15	***Where are the forests? What types are out there? And how is this changing?***	Reading comments
17	***Protected forests***	Reading comments Team agreements - country reports
22	***Forests threats & opportunities***	Reading comments
24	***Global forest governance***	Reading comments
29	***Global Forest Watch: Applications in Peru*** ***Sustainable forest management***	Reading comments
31	***An example: Japan***	
Feb 5	***Country reports***	Team presentations
7	***Country reports***	Team presentations
12	***Cross-country analyses***	Reading comments

AN AMAZONIAN CASE

14	***Rubber tapper culture***	Reading comments
19	***Chico Mendes and the rubber tapper social movement*** ***Stakeholders & power***	Reading comments
21	***Change over time in Acre***	Reading comments
24	*Note: This is a Sunday (midnight)*	Land use essays
26	***Beyond rubber***	Lightening Presentations
28	***Intro to value chains***	Reading comments

Mar 4 - Mar 8 **SPRING BREAK!**

SEEKING SUSTAINABILITY

Mar	12	***The promise of community-based forest management***	Reading comments
	14	***Sacred forests of Ethiopia***	Reading comments Team agreements-value chain
	19	***Tropical timber management (big & small)***	Reading comments
	21	***Grounded global forest monitoring (ForestGEO)***	Reading comments
	26	***The case of the Ashaninka in Peru*** ***Reforestation in China***	Reading comments
	28	***Human-panda interactions***	Reading comments
April	2	***Forests and their management in Mexico***	Reading comments
	4	***New Caledonia and global forest health***	Reading comments
	9	***Corridors and restoration in Brazil's Atlantic Forest***	Reading comments
	11	***Paraguay: Tereré is only the beginning***	Reading comments
	16	***Value chain presentations***	Team presentations

18	***Value chain presentations***	Team presentations
23	***Class wrap-up & evaluation***	Reading comments

READINGS
We will be using UF's Canvas system (or e-Learning) to facilitate course communication and to access readings: https://elearning.ufl.edu/

All articles listed below are **required** reading for the course, unless "***Recommended***" precedes the citation. To access the readings, go to the Discussion tab on the left panel of the main course site, readings for each class will be found by date and topic. For example, to access the two readings for January 15, you will click on "Jan 15: Where are the forests? What types are out there? And how is this changing?"

Jan 8 ***Introduction***
No readings

Jan 10 ***Who are we and how did we get here?***
No readings

THE BIG PICTURE
Jan 15 ***Where are the forests? What types are out there? And how is this changing?***
Perry, D.A., R. Oren and S.C. Hart. 2008. Major forest types and their climatic controls. Chapter 4, Major forest types and their climatic controls (pp. 41-50 only). The Johns Hopkins University Press.

FAO. Global Forest Resources Assessment 2015: How are the world's forests changing? 1990-2015: Twenty-five years in review (pp 2-5 only). Online at: http://www.fao.org/3/a-i4793e.pdf

Recommended
Achard, Frédéric et al. 2008. Vital Forest Graphics: Stopping the downswing? Pages 4-13 only. UNEP (The United Nations Environmental Program), FAO (The Food and Agricultural Organization of the United Nations) & UNFF (The United Nations Forum on Forests Secretariat). Online at: http://www.grida.no/_res/site/file/publications/vital_forest_graphics.pdf

Keenen, R.J., G.A. Reams, F. Achard, J.V. de Freitas, A. Grainger and E. Lindquist. 2015. Dynamics of global forest area: Results from the FAO Global Forest Resources Assessment 2015. Forest Ecology and Management 352:9-20.

Kuappi, P.E., J.H. Ausubel, J. Fang, A.S. Mather, R.A. Sedjo, and P.E. Waggoner. 2006. Returning forests analyzed with the forest identity. Proceedings of the National Academy of Sciences 103(46): 17574-17579.

Jan 17 ***Protected forests***

Mulder, M. B. and P. Coppolillo. 2005. The evolution of policy. Pages 27-52 (Chpt 2), *In:* Mulder, M. B. and P. Coppolillo. Conservation: Linking ecology, economics, and culture. Princeton University Press, Princeton, New Jersey.

Recommended

Schmitt, C.B., N.D. Burgess, L. Coad, A. Belokurov, C. Besançon, L. Boisrobert, A. Campbell, L. Fish, D. Gliddon, K. Humphries, V. Kapos, C. Loucks, I. Lysenko. L. Miles, C. Miles, S. Minnemeyer, T. Pistorius, C. Ravilious, M. Steininger, and G. Winkel. 2009. Global analysis of the protection status of the world's forests. Biological Conservation 142:2122-2130.

Jan 22 ***Forests threats & opportunities***

Curtis, P., C.M. Slay, N.L. Harris, A. Tyukavina, and M.C. Hansen. 2018. Classifying drivers of global forest loss. Science 361:1108-1111.

Recommended

Chomitz, K.M., with P. Buys, G. De Luca, T. S. Thomas, and S. Wertz-Kanounnikoff. 2007. Incentives and constraints shape forest outcomes. Pages 53-79 (Chapter 2), In: At loggerheads? Agricultural expansion, poverty reduction and environment in tropical forests. The World Bank, Washington, DC. Available at: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2006/10/19/000112742_20061019150049/Rendered/PDF/367890Loggerheads0Report.pdf

Achard, Frédéric et al. 2008. Vital Forest Graphics: Stopping the downswing? Pages 20-23 only. UNEP (The United Nations Environmental Program), FAO (The Food and Agricultural Organization of the United Nations) & UNFF (The United Nations Forum on Forests Secretariat). Online at: http://www.grida.no/_res/site/file/publications/vital_forest_graphics.pdf

Jan 24 ***Global forest governance***

McDermott, C.L. 2014. REDDuced: From sustainability to legality to units of carbon – The search for common interests in international forest governance. Environmental Science and Policy 15:12-19.

Recommended

Cashore, B., S. Leipold and P.O. Cerutti. 2016. Pages 119-131 (Chapter 7), Global governance approaches to address illegal logging: Uptake and lessons learnt. In: Kleinschmit, D., S. Mansourian, C. Wildburger and A. Purret (eds.), Illegal logging and related timber trade – dimensions, drivers, impacts and responses. IUFRO World Series Volume 35. Vienna.

Agrawal, A., A. Chhatre, and R. Hardin. 2008. Changing governance of the world's forests. Science 320:1460-1462.

Overdevest, C. and J. Zeitlin. 2014. Constructing a transnational timber legality assurance regime: Architecture, accomplishments, challenges. Forest Policy and Economics 48:6-15.

Jan 29 ***Global Forest Watch: Applications in Peru***
Sustainable forest management

Please read the abstracts from both papers (MacDicken et al. & Sletto and Rodriguez) and fully read one of your choice.
MacDicken, K.G., P. Sola, J.E. Hall, C. Sabogal, M. Tadoum, and C. de Wasseige. 2015. Global progress toward sustainable forest management. Forest Ecology and Management 352:47-56.

Sletto, B. and I. Rodriguez. 2013. Burning, fire prevention and landscape productions among the Pemon, Gran Sabana, Venezuela: Toward an intercultural approach to wildland fire management in Neotropical Savannas. Journal of Environmental Management 115:155-166.

Recommended
FAO (Food and Agricultural Organization of the United Nations). 2014. State of the World's Forests: Enhancing the socioeconomic benefits from forests. Executive Summary (Pages xi-xii only). FAO, Rome. Online at: http://www.fao.org/3/a-i3710e.pdf

Jan 31 ***An example: Japan***
No readings

Feb 5 ***Country reports***
No readings

Feb 7 ***Country reports (cont.)***
No readings

Feb 12 ***Cross-country analysis***
Executive summaries produced by each country team. See Canvas for specific instructions on reading comments.

AN AMAZONIAN CASE
Feb 14 ***Rubber tapper culture***
Hecht, S. and A. Cockburn. 1989. The realm of nature. Pages 15-32 (Chapter 2), In: Hecht S. and A. Cockburn. The fate of the forest: Developers, destroyers and defenders of the Amazon. Verso, New York

Feb 19 ***Chico Mendes and the rubber tapper social movement***
Stakeholders & power
Oxfam. No Date (nd). Quick guide to power analysis.

View "Voice of the Amazon" – 56:10 min
https://www.youtube.com/watch?v=Ii0ypePaZ1o

It is critically important that you view this video prior to class. See Canvas for specific instructions on listening exercise and comments on this video.

Recommended:
See Section 3.2 of reading below for your individual Amazonian land use essay.
Reed, M.S., A. Graves, N. Dandy, H. Posthumus, K. Hubacek, J. Morris, C. Prell, C.H. Quinn and L.C. Stringer. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resource management. Journal of Environmental Management 90:1933-1949.

Wells, M. 1992. Biodiversity conservation, affluence and poverty: Mismatched costs and benefits and efforts to remedy them. Ambio 21:237-242

Feb 21 ***Change over time in Acre***
Vadjuenec, J.M., M. Schmink, and C.V.A. Gomes. 2011. Rubber tapper citizens: emerging places, policies, and shifting rural-urban identities in Acre, Brazil. Journal of Cultural Geography 28(1):73-98.

Recommended
Kainer, K.A., M. Schmink, A.C.P. Leite, and M.J. da Fadell Silva. 2003. Experiments in forest-based development in Western Amazonia. Society and Natural Resources 16(10):869-886.

Shanley, P., F.C da Silva, T. MacDonald, and M. da Serra Silva. 2018. Women in the wake: expanding the legacy of Chico Mendes in Brazil's environmental movement. Desenvolvimento e Meio Ambiente 48:140-163.

Feb 26 ***Beyond rubber***
Cooper, N.A. and K.A. Kainer. 2018. To log or not to log: Local perceptions of timber management and implications for well-being within a sustainable use protected area. Ecology and Society 23(2):4. *https://doi.org/10.5751/ES-09995-230204*

Recommended
Kainer, K.A., L.H.O. Wadt and C.L. Staudhammer. 2018. The evolving role of *Bertholletia excelsa* in Amazonia: contributing to local livelihoods and forest conservation. Desenvolvimento e Meio Ambiente 48:477-497.

Wallace, R.H., C.V.A. Gomes and N.A. Cooper. 2018. The Chico Mendes Extractive Reserve: trajectories of agro-extractive development in Amazonia. Desenvolvimento e Meio Ambiente 48:184-213.

Feb 28 ***Introduction to value chains***
Kaplinsky, R. and M. Morris. 2001. A handbook for value chain research. IDRC, Sussex, UK. Available at: http://www.ids.ac.uk/ids/global/pdfs/VchNov01.pdf

Fearne, Andrew. Video: Value Chains vs Supply Chains
https://www.youtube.com/watch?v=mu9TWlcjNKk

Mar 4-8 **SPRING BREAK!**

SEEKING SUSTAINABILITY

Mar 12 ***Communities and forests***

Mulder, M. B. and P. Coppolillo. 2005. Indigenous people as conservationists. Pages 81-103 (Chpt 4), *In:* Mulder, M. B. and P. Coppolillo. Conservation: Linking ecology, economics, and culture. Princeton University Press, Princeton, New Jersey.

Mar 14 ***Sacred forests of Ethiopia***

Nugent, A. 2017. Ethiopia's sacred forests are shrinking. Can we save them? OZY: The Daily Dose. Accessed 13 Mar 18: https://www.ozy.com/rising-stars/ethiopias-sacred-forests-are-shrinking-can-he-save-them/80672

Global 3000. Heart and soul of Ethiopia: The Sheka Forest. Deutsche Welle (DW).
https://www.youtube.com/watch?v=jQFSAD0-2EE

Gili, E. 2014. Are church forests key to conservation in Ethiopia? Deutsche Welle (DW). 21 January 2014. http://www.dw.com/en/are-church-forests-key-to-conservation-in-ethiopia/a-17375810

Mar 19 ***Tropical timber management (big & small)***

Putz, F.E., P.A. Zuidema, T. Synnott, M. Peña-Claros, M.A. Pinard, D. Sheil, J.K. Vanclay, P. Sist, S. Gourlet-Fleury, B. Griscom, J. Palmer and R. Zagt. 2012. Sustaining conservation values in selectively logged tropical forests: the attained and the attainable. Conservation Letters 5(4):296-303. Supplemental tables recommended.

Mar 21 ***Grounded global forest monitoring (ForestGEO)***

Anderson, K.J. et al. 2015. CTFS-ForestGEO: a worldwide network monitoring forests in an era of global change. Global Change Biology 21:528-549.

Mar 26 ***The case of the Asháninka in Peru***
Reforestation in China

Hua, F., L. Wang, B. Fisher, X. Zheng, X. Wang, D.W. Yu, Y. Tang, J. Zhu and D. Wilcove. 2018. Tree plantations displacing native forests: The nature and drivers of apparent forest recovery on former croplands in Southwestern China from 2000 to 2015. Biological Conservation 222:113-124.

Please also read the abstracts of the following two articles:

Salisbury, D.S., J. Borgo López and J.W. Vela Alvarado. 2011. Transboundary political ecology in Amazonia: history, culture, and conflicts of the borderland Asháninka. Journal of Cultural Geography 28(1):147-177.

Peralta, P.A. and K.A. Kainer. 2008. Market integration and livelihood systems: A comparative case of three Ashaninka villages in the Peruvian Amazon. Journal of Sustainable Forestry 27:145-171.

Mar 28 ***Human-panda interactions***
Swaisgood, R.R., F. Wei, D.E. Wildt, A.J. Kouba and Z. Zhang. 2010. Giant panda conservation science: how far we have come. Biological Letters 6:143-145.

Recommended
Zhang, J., V. Hull, J. Huang, S. Zhou, W. Xu, H. Yang, W.J. McConnell, R. Li, Y. Huang, Z. Ouyang, H. Zhang and J. Liu. 2015. Activity patterns of the giant panda (*Ailuropoda melanoleuca*). Journal of Mammalogy 96(6):1116-1127.

Apr 2 ***Forests and their management in Mexico***
Bray, D.B. 2010. Capitalism meets common property. Americas Quarterly (Winter):30-35.

Apr 4 ***New Caledonia and global forest health***
Roy, B.A., H.M. Alexander, J. Davidson, F.T. Campbell, J.J. Burdon, R. Sniezko, and C. Brasier. 2014. Increasing forest loss worldwide from invasive pests requires new trade regulations. Frontiers in Ecology and the Environment 12(8):457-465.

Apr 9 ***Corridors and restoration in Brazil's Atlantic Forest***
Valladares-Padua, C., S.M. Padua and L. Cullen, Jr. 2002. Within and surrounding the Morro do Diabo State Park: biological value, conflicts, mitigation and sustainable development alternatives. Environmental Science & Policy 5:69-78.

Apr 11 ***Paraguay: Tereré is only the beginning***
The Editors. 2019. In Paraguay, rapid deforestation is the price of an economic boom: Q&A with Joel. E. Correia. World Politics Review 27344.

Apr 16 ***Value chain presentations***
No readings

Apr 18 ***Value chain presentations (cont.)***
No readings

Apr 23 ***Class wrap-up & evaluation***

1998 Video: Good Wood (44 minutes). Produced by David Springbett and Heather MacAndrew. Directed by David Springbett. View at: http://vimeo.com/17580366

ASSIGNMENTS

(1) READINGS COMMENTS

Each student will provide comments that flow from the readings assigned for that class period. The rationale behind this assignment is to provide me with insights of individual perspectives prior to class, better incorporate what students have to say on the topic at hand, and begin class dialogue.

There are 21 class periods with required readings (or videos), and students are required to send in comments for 20 of these periods. I do not want a summary or abstract of each of the readings or a formalized, well-thought out rebuttal of the authors' arguments. Rather, I expect you to share with the class (post on Canvas) some of your thoughts that were stimulated by the readings. What did the readings mean to you? What was most interesting? Do you buy the author's thesis? Why? Did the readings stimulate you to reflect on a past experience? How? Who is/are the author(s) anyway? What's their backgrounds and where are they from? I have purposefully chosen a more informal group discussion format so that students feel freer to express their basic reactions to the readings. ***Please note that comments on the video assigned for Feb 19 is mandatory. See Canvas for specific instructions.***

Each student should **post his or her comments by 10:00 am the day before** the designated class. That's 10:00 a.m. on Monday or Wednesday, the days before each Tuesday and Thursday session, respectively. Comments will be posted in the Discussion section of Canvas. Click on the course Global Forests. Go to "Discussion" listed in the left hand column, and then click on the topic for the week. For example, by 10:00 a.m. on Monday, January 14, you are required to post your comments in the following forum "Jan 15: Where are the forests? What types are out there? And how is this changing?" Others in the class will then be able to read your comments and add theirs. The length of comments is not fixed, but should be at least 2-3 paragraphs. No student is responsible for reading the comments of others, but you are welcome to do this and comment if you wish. The sum of these comments is worth 20% of your grade.

(2) CLASS PARTICIPATION

ATTENDANCE IS REQUIRED. It is a prerequisite to in-class participation, and it is important because of my emphasis on in-class, cross-student learning. Students bring a wealth of experience and insights into the classroom, and each class period is a unique chance to learn from those experiences. I also expect students to share their thoughts/ideas/questions while in class, and of course, arrive on time and be courteous to both guest lecturers and fellow students. Class participation constitutes 5% of your grade, and **I expect students to attend every class.** If you attend **all classes, 3 points will be added to your final grade.** In contrast, **3 points will be subtracted from your final grade for each class not attended,** unless you have an excused absence. An "excused absence" is any unavoidable, unplanned situation (i.e., illness, death in the family, bike accident). Please notify me of your situation prior to the class you think you'll miss.

(3) 2-MINUTE PRESENTATION

Each student will give a 2-minute presentation of "Who I am, and how I got here". The objective of this presentation is to give the class a better idea of who you are, and what your motives are for being in this class. Since you have limited time (an understatement), you will want to be well prepared. **Helpful visuals/props are required, but PowerPoint is prohibited!** Each student will present on Thursday, January 10. This assignment constitutes 5% of your grade.

(4) COUNTRY REPORT (TEAM ASSIGNMENT)

This team assignment will allow us to examine representative countries (and their forests) of the three major forest biomes that occur across the planet (tropical, boreal and temperate forests). For example, a couple of teams might analyze an Asian and African country to explore tropical forest biomes; at least one team will explore a boreal country, like Russia, a Scandinavian or a Baltic country; and finally, at least one team will explore forests of Europe or another temperate country. Brazil is off limits (we cover enough in other course sessions).

I want your team to get to know your chosen country, learn how its forests are used, valued by diverse segments of society, and how they are managed, and conserved. And…educate the class, so we also become familiar. Be creative, thorough and rigorous!!!

a. Country report presentation

The **country report will be presented orally,** and is worth 15% of your grade. Each team will have 25 minutes to orally present (including fielding questions) their findings on February 5 or 7.

b. One-page executive summary

A one-page written executive summary (key points and main conclusions you want us to remember about the country and forest context in your country) to be uploaded onto Canvas. This is worth 5% of your grade.

c. Table of country indicators

A table with data from your country (see just below) is to be uploaded onto Canvas. Please also bring a hard copy to class at the time of your oral presentation.

Variable	**U.S.**	**Your country**
Total land area (km^2) – FRA 2015 Country Report	9,600,000	
Total forest area (km^2) – FRA 2015 Country Report	3,100,000	
% land under forest cover	32%	
Annual change in forest cover (FRA, 1990-2015)	0.1%	
GDP per capita – CIA Factbook	$57,600	
Population density (number of people/km^2) – CIA Factbook	34	
Gini index* – CIA Factbook	45	
Infant mortality rate: deaths/1000 live births and (rank)	5.8 (170^{th})	
Democracy index and (rank) – The Economist	8.0 (21st)	

* 0 = perfect equality in income distribution between families
100 = perfect inequality
Ranks from 23 (Lesotho) to 63 (Sweden)

A **team agreement** will be developed by each group and is a basic sketch of *activities, who is responsible* for their completion, and *when they are due*. You may want to divide up who will review and provide data from which websites. The agreement should also include a preliminary list of references for the report, and your group's preferred date of oral presentation (either February 5 or 7). I will try to accommodate each group's preference, but may ultimately have to assign dates. Each group will upload onto Canvas one copy of their agreement on Thursday, Jan 17. *These agreements will be reviewed, but will not be graded.*

TEAM AGREEMENT

Timeline/team member	John	Jane
Finish by Jan x	• Review required websites 1-3	• Review required websites 4-7
Finish by Jan x	• task	• task
. . .	. . .	. . .

Key references: …..
Preferred date of presentation:

Similarly each team will be asked to keep weekly logs of the time each team member spent on the team project (see example below). These will be uploaded onto canvas on Mondays: Jan 21 and 28, and Feb 4 and 11. *These will be reviewed, but not graded.*

Brazil Team			**Week of Jan 14-20**			
	John		***Jane***		***Axel***	
	Hours	Brief description	Hours	Brief description	Hours	Brief description
Mon	2	Explore GFW	4	Get data for table	4	
Tues						
Wed						
Thur						
Fri						
Sat						
Sun						

Where to start?

Each group should thoroughly consult (*and where appropriate, cite*) the online resources/sites listed below. The key is exploring a country and issues in which you are really interested.

You are required to review the following 8 sites/search engines/documents:

1. **The 2015 Forest Resource Assessment (FRA)** of the Food and Agricultural Organization (FAO) of the United Nations provide detailed forest data on most countries. Available at: http://www.fao.org/forest-resources-assessment/en/

Please note that you can access the following:

- Key findings by http://www.fao.org/3/a-i4793e.pdf
- The Desk Copy (main data) http://www.fao.org/3/a-i4808e.pdf
- Individual country reports http://www.fao.org/forest-resources-assessment/current-assessment/country-reports/en/

2. **Search Google scholar** for scholarly articles on your country's forests (i.e., Lithuania Forests).

3. **CIA World Factbook**: https://www.cia.gov/library/publications/the-world-factbook/index.html

4. **The Democracy Index (The Economist)** https://www.eiu.com/topic/democracy-index

5. **Global Forest Watch (GFW)** This site is FULL of forest information and graphics that are useful for your particular country: http://www.globalforestwatch.org/ Please take the 1 minute and 26 seconds to watch the following overview: http://www.globalforestwatch.org/howto Explore GFW to observe country-wide changes in annual forest cover (2001-2017) and by geographic regions. Explore other features too!

6. **The International Union for the Conservation of Nature (IUCN)** is the leading authority for biodiversity conservation worldwide: http://www.iucn.org/

7. **The Center for International Forestry Research (CIFOR)** conducts stellar research on forest management and people in the developing world: http://www.cifor.org/. This site is required only if your country falls within the "developing world".

8. **State of the World's Forests 2018: Forest pathways to sustainable development.** FAO, Rome. This most recent FAO document takes a broader vision of forests and their role in achieving sustainable development goals across the globe. http://www.fao.org/3/i9535en/I9535EN.pdf

The following 4 sites may also be useful with detailed information about particular forest issues in particular locations.

1. **The International Union of Forest Research Organizations (IUFRO)** has a great special project on World Forests, Society and Environment (IUFRO-WFSE) that has specific information about specific global regions/countries: HTTP://WWW.IUFRO.ORG/SCIENCE/SPECIAL/WFSE/

2. **WRI (World Resources Institute**) is an excellent critical source of information on the world's resources and their sustainable use/management, including forests https://www.wri.org/our-work/topics/forests

3. **Mongabay** site http://rainforests.mongabay.com/deforestation/ has a host of information on a variety of countries, including:
    - Portion of land area protected by IUCN category (Present 3 percentages: I and II; II, IV and V; and VI and other)

4. **SciDevNet (the Science Development Network)** site dedicated to forestry is a nice resource that brings science and development together by reporting on some of the latest scientific findings related to forests: http://www.scidev.net/global/agriculture/forestry/

Grading criteria for the oral presentation

(1) **Quality images & maps** showing country location, geographic distribution & major forest types, species of critical importance (biological, commercial, etc..).

(2) **Historical context of forests**, including forest change (deforestation or reforestation) trends in your country (See Global Forest Watch). Give us a sense of how the country's history has led to its current forest cover.

(3) Reports country-specific forest data:

The presentation should include text (heavily bulleted), tables, and figures that help us understand your country, based on the following data.

- **Forest/land use data**
    - Total land area
    - % of land area covered by forest
    - Annual rates of change in forest cover. Has your country passed the forest transition point?
    - Area under planted forests (including extent and major species). How important are plantations in your country?
    - Land tenure/forest ownership situation. Who owns & manages the forests, including extent to which native people inhabit/own/manage forests.
    - Forest sector contribution to economy and employment.
    - Degree to which forests are certified (& under which certification schemes)
    - Protected areas (Portion of land area protected by IUCN category. Present 3 percentages: (1) I and II; (2) II, IV and V; and (3) VI and other)

(4) Reports critical country-specific demographic and socioeconomic data. The presentation should include text (heavily bulleted), tables, and figures that help us understand your country, perhaps based on the following data.

- **Country demographics & socioeconomic data**
    - Population density
    - Youth literacy rate (% of people ages 15-24)
    - Infant mortality rate
    - Percentage of internet hosts per 100 people
    - GDP per capita
    - Gini coefficient/index

- National poverty rate (% of population which earns less than country's poverty line)
- Democracy ranking

(5) **In-depth discussion of how forests/trees are used, managed and conserved** (i.e., highlight key uses and/or management systems). These will likely be quite different for each country.

(6) **What are the current main forest management and conservation issues/dilemmas/controversies** in your country? **These questions are to be developed by all group members.**

(7) **Citations** noting sources of information. Cite photo credits too. Do not just place a bunch of citations at the end of your presentation, but rather, there should be citations on each slide (for photos and info).

(8) A **concluding slide or two** with bullets of key points and main conclusions you want us to remember about the forest context in your country.

(9) Overall **quality of information**.

(10) Overall **clarity and quality of presentation**.

Presentation tips!
Here are a few resources on presentations to help: The #PreziTop100 Online Resources Every Presenter Should See

(5) AMAZONIAN LAND USES (INDIVIDUAL ASSIGNMENT)
The objective of this assignment is for us to learn more about the variety of land uses currently practiced in the Amazon and to critically examine the degree to which these land uses are sustainable. This individual assignment consists of two parts:

a. Essay on Amazonian land use
Prepare a 2 to 3-page, single-spaced analysis of the environmental and socio-economic implications of your assigned Amazonian land use. I expect a high quality, critical essay (well-written, complete sentences and well-constructed paragraphs) that contains the following: (1) Describe the land use, (2) What stakeholders are directly (and perhaps indirectly) involved? (3) Which stakeholder group(s) bear(s) the costs and which one(s) reap the benefits of the land use? (4) To what extent does the land use promote forest conservation? and (5) To what extent does it promote local or regional livelihood development in the Amazon? Please see the UF Writing Studio for terrific writing assistance. You will upload your essay by Sunday, Feb 24 at midnight. It is worth 15% of your grade.

Each essay will be checked for plagiarism via Turnitin.

Cited references are required for this assignment and should be listed at the bottom of your essay, and appropriately referenced within the text. Your cited references will be the first aspect of your essay that I will review; this will tell me much about the quality of information acquired. References **should include at least two citations from the assigned (required and/or recommended) reading list and two additional citations from an additional two peer-reviewed (academic) articles**. My experience is that students who integrate at least four peer-reviewed (academic) articles are the ones who have a much better grasp of the complexity of their land use, and ultimately receive much higher grades.

b. Lightening presentation

Shortly after you turn in your essay, you will give a 2-minute (2 minutes! No more!!!) lightening presentation on your land use. In this case, PowerPoint or some other presentation software is almost imperative to getting across key points. You will clearly need to focus on key points and practice, practice because slides are only visible for a short period of time and any text used must be short and to the point. Presentations will take place on Tuesday, Feb 26. These oral presentations are worth 5% of your grade.

Please read the following "Giving Lightening Talks"
http://www.perl.com/pub/2004/07/30/lightningtalk.html

(6) VALUE CHAIN ANALYSIS (TEAM ASSIGNMENT)

The objective of this assignment is for students to compare and contrast value chains (production-to-consumption chains) of multiple imported forest products found in Gainesville. This comparison will illuminate global linkages and demonstrate environmental, socioeconomic and political differences in global contexts under which forest products are harvested and transformed. While this assignment centers on both practical investigation of products and their transformation (communicating with different people along the value chain and learning of the product), it also includes scholarly research to obtain factual information about the product (i.e., multiple questions about product origin, transformation). **It is critical to have solid sources of information and cite them!!!**

Again, a **team agreement** will be developed by each group and is a basic sketch of *activities*, *who is responsible* for their completion, and *when they are due*. The agreement, due on March 14, should also include a preliminary list of references for the oral presentation, and your group's preferred date of presentation (either Apr 16 or 18); I will try to accommodate each group's preference, but may ultimately have to assign dates. Each team will turn in one copy of their agreement to me, keeping copies for yourselves. Again, logs will be used to note the hours spent by each team member for this project.

Key references include:

Belcher, B.M. 1998. A production-to-consumption systems approach: Lessons from the bamboo and rattan sectors in Asia. Pages 57-84, In: Wollenberg, E and A. Ingles (eds.). Incomes from the forest: methods for the development and conservation of forest products for local communities. Center for International Forestry Research (CIFOR), Bogor, Indonesia. (Pp 57-71 are most relevant). Available at: http://www.cifor.cgiar.org/publications/pdf_files/Books/Incomes.pdf

Marshall, E, J. Rushton and K. Schreckenberg. 2006. Practical tools for researching successful NTFP commercialization: A methods manual. Pages 11-12 (Section 2.4 Value chain analysis) and 56-59 (Section 7 Value chain analysis). UK Department for International Development (DFID), London. Available online at: http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/3906.pdf

Kaplinsky, R. and M. Morris. 2001. A handbook for value chain research. IDRC, Sussex, UK. Available at: http://www.ids.ac.uk/ids/global/pdfs/VchNov01.pdf

For various Bolivian and Mexican value chain examples, see:
Marshall, E., K. Schreckenberg, and A.C. Newton (Eds). 2006. Commercialization of non-timber forest products: Lessons learned from Mexico and Bolivia and policy implications for decision-makers. UNEP World Conservation Monitoring Centre, Cambridge, UK. Available online at: http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/3769.pdf

Potential Products to be researched

- FSC certified wood
- NTFP products
- Wards or Luckys or…beauty product stores (shea butter)

Many, many other possibilities such as palm heart… as long as you run your idea past me!

In addition, the following 3 compilations provide introductory information about multiple products originating from Africa, Asia and Latin America, respectively.

López, C. and P. Shanley (eds.). 2004. Riches of the forest: for health, life and spirit in Africa. Center for International Forestry Research (CIFOR), Bogor Barat, Indonesia. Available at: http://www.cifor.cgiar.org/Publications/Detail?pid=1475 (in 3 separate files).

López, C. and P. Shanley (eds.). 2004. Riches of the forest: food, spices, crafts and resins of Asia. Center for International Forestry Research (CIFOR), Bogor Barat, Indonesia. Available at: http://www.cifor.cgiar.org/publications/pdf_files/Books/NTFP-Asia-case.pdf

López, C., P. Shanley, and A. C. Fantini. (eds.). 2004. Riches of the forest: fruits, remedies and handicrafts in Latin America. Center for International Forestry Research (CIFOR), Bogor Barat, Indonesia. Available
at: http://www.cifor.cgiar.org/publications/pdf_files/Books/BLopez0401E0.pdf

Questions for Value chain analysis
Product origin

- Where does this product come from originally?

- Who harvests it? Tell us about the producers.
- How is it harvested?
- To what extent is the product important to local people economically and socially? (i.e., How do they use the species locally? Does it have cultural value?)
- What is the species (plural) harvested? Provide genus, species and family.
- In what types of ecosystem(s) is this species found and/or grown? (i.e., mature tropical forest, secondary forest, plantation, savannah???)
- Is there a seasonality to harvest?
- Any evidence on harvest sustainability? Using what criteria?

Transformation
- How is the species processed and where?
- Are there multiple steps to processing? What are they?
- Are there multiple steps to getting the processed product to the eventual consumers? What are they?
- Who are the middlepeople involved in getting this product from producer to processor to market? Are brokers used? Or do processors usually purchase directly from the producer? What is the approximate average mark-up for each middle person?
- Is there seasonality to these transformations?
- Who are the major market participants in the value chain and what is their sale price? (see Fig. 4.1 of Belcher) There will likely be gaps, but prepare it to the best extent possible.
- What is the geographic path that the product takes to get from extraction to processing to consumption? Use a map to show this path.

Consumers
- Who are the major buyers of this product?
- What does one pay for this product here in Gainesville (and elsewhere throughout the production-to-consumption chain)?

Other
- Are there global/national trade agreements surrounding this product?
- What does the refereed literature report on this species/product?

I have examples of previous presentations, showing different strengths and weakness which you can assess for yourself. Each group will have 25 minutes for their presentation, which includes fielding questions from the audience. This value chain analysis is worth 25% of the final grade for the class.

Grading criteria for these presentations include:
1. Evidence that group obtained as much information as possible (within reason) on their product to answer the above questions. All groups should tell how they went about digging for information about product origin, transformation and the production-to-consumption system. For some products, groups will not be able to obtain as much information. Other groups will have an easier time. Either way, however, tell us how you went about it.

2. ***Demonstration of how this product is transformed*** with accompanying images of harvesters, their context, product, processing…
3. ***Value chain with pricing information*** (see Fig 4.1 of Belcher). Again, some groups will have fewer gaps than others.
4. Map showing the geographic path the product takes from extraction to processing to consumption.
5. ***Citations*** noting sources of information. Cite photo credits too.
6. ***Overall quality of information***.
7. ***Overall clarity and quality of presentation.***

(7) EVENT PARTICIPATION
The objective of this assignment is to broaden your exposure and deepen your understanding of specific issues related to global forests. You are required to attend 2 events (2.5 points each) and **submit the following information for each event** in which you:

1. indicate the title, place, time and presenter(s) of the event
2. identify the main message(s) communicated by the event
3. connect the event to content or ideas covered in our course readings and lectures
4. discuss an aspect of the event that you found interesting, motivating, insightful
5. take a photo AT THE EVENT showing your face (ideally) and the speaker (at a minimum) to document your presence

Event papers must be turned in within two weeks following the event.

Possible events at UF
Tropilunch seminar, 12:45 every Tuesday in Grinter 376 http://www.tcd.ufl.edu/news/tropilunch

TCD news and events http://uftcd.org/tropilunch/

Wildlife Ecology & Conservation seminars (Mondays at 3:30):
http://www.wec.ufl.edu/seminars/

Department of Biology Events calendar: https://biology.ufl.edu/events/month/

UF HELPING RESOURCES

- **Academic Writing, Grammar and Style:** The UF Writing Studio is committed to helping University of Florida students and faculty meet their academic and professional goals by becoming better writers. We support independent learning and scholarship by providing one-on-one consultations, workshops tailored to specific classes (graduate and undergraduate), and faculty retreats focusing on publishing original research. Students and faculty at all levels and in every discipline are welcome!

- **Technical difficulties with E-learning in CANVAS**: Contact the UF Help Desk at Learning-support@ufl.edu or (352) 392-HELP, then select option 2.

- **Personal Challenges:** Students experiencing crises or personal problems that interfere with general wellbeing are encouraged to utilize the university's counseling resources. The

Counseling Center and Student Mental Health both provide confidential counseling services at no cost for enrolled students. Resources are also available for students seeking to clarify career and academic goals and to deal with academic challenges.

- University Counseling Center, 301 Peabody Hall, 392-1575; personal and career counseling.
- Student Mental Health, Student Health Care Center, 392-1171, personal counseling.
- Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161.
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

UF POLICIES

- **Students with Disabilities Act:** The Dean of Students Office coordinates needed accommodations of students with disabilities. This includes the registration of disabilities, academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues. *Dean of Students Office*, 202 Peabody Hall, 392-7066.
- **Software Use:** All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator.
- **Academic Misconduct:** Academic honesty and integrity are fundamental values of the University community. Work submitted for credit by UF students should not include any form of plagiarism, cheating or unauthorized aid. Unless an assignment is explicitly identified as collaborative, all work should be completed independently. Students should understand and follow the Student Honor Code that they signed upon enrollment at the University of Florida: *"I understand the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."*