E622 (Section #28775)

Empirical Theory and Methods Research Seminar International Forestry Resources and Institutions Indiana University - Fall 2011

Workshop in Political Theory & Policy Analysis, 513 N. Park

Instructor:

Catherine Tucker, Anthropology Phone: 855-7516 Email: <u>tuckerc@indiana.edu</u>

Office: Student Bldg 044 Office Hrs: Tues 9–11am & By appt.

Guest Lecturers:

Burney Fischer, SPEA Phone: 856-5016 Email: bufische@indiana.edu

Office: SPEA 321 Office Hrs: By appt.

Elinor Ostrom, Workshop, Political Science Email: ostrom@indiana.edu

Office: Workshop, Park 1, 204 Office Hrs: By appt. through Nicole Todd

Computer and Database Instructors:

Julie England, CIPEC Phone: 855-3196 Email: england@indiana.edu

Robin Humphrey, CIPEC Email: chumphre@indiana.edu

Course Logistics:

Nicole Todd

Office: Workshop, Park 1, 205 Phone: 855-7704 Email: stodd@indiana.edu

Graduate Assistant:

Sobhi Mohanty, SPEA

Office: Workshop, Park 3, 105 Phone: 855-8092 Email: somamoha@indiana.edu

Weekly Schedule: THIS IS A 9-WEEK COURSE

<u>Regular Class Meetings</u> (Required for All Participants): Monday & Wednesday 2-5 p.m. <u>Location:</u> Workshop in Political Theory & Policy Analysis, 513 N. Park

<u>Supplemental Technical Training</u> (Required for IFRI Visiting Scholars, Recommended for Graduate Students): 9-11 a.m. Tuesday and Thursday

<u>Fieldwork Dates</u> (Required for All Participants): Arranged with case study community. Most fieldwork must be done during evenings and weekends.

Introduction

This research seminar is designed to explore theoretical foundations and research methods for studying human-environment interactions, especially human interrelationships with forests. It explores how human activities and institutions impact forest conditions over time, with special consideration to institutional, collective action and common property theories. The course provides in-depth exposure to the International Forest Resources and Institutions (IFRI) Research Program through fieldwork in a nearby forest community. IFRI currently involves 12 research centers in 10 countries in Africa, Asia and the Americas. It is an international, comparative, multidisciplinary, and longitudinal research program that studies human-forest interrelationships, forest management institutions and change processes.

The course includes Indiana University <u>graduate students</u> in diverse disciplines who are interested in learning about multi-method research techniques, and for <u>visiting scholars</u> ("IFRI Trainees") who are interested in participating in research related to the International Forestry Resources and Institutions (IFRI) Research Program. Although there are times when the requirements of the two groups differ, we find that the combination produces a very positive learning environment for everyone who participates.

All class members will work closely together so that both learn how to apply theory, do fieldwork, record fieldwork data, and analyze data. While graduate students will be primarily responsible for writing the final case study report for our training site, visiting scholars will be expected to participate in outlining the key findings for this study, contribute to the final report, and review it for completeness, accuracy, and tone. While IFRI scholars are responsible for writing their own research plans, graduate students will contribute ideas and comments for visiting scholars' research proposals. Since this seminar involves actual field research it requires a substantial investment of time, especially because it is an intensive 9-week course. Please consult the class calendar to make certain you can meet the time requirements of this class.

In addition to the two class times for all participants, we have a number of trips to the field. Visiting scholars also participate in database training (graduate students are welcome) to learn the use of the MS Access relational database.

Required Texts

Gibson, Clark, Margaret McKean, and Elinor Ostrom, eds. 2000. *People and Forests: Communities, Institutions, and Governance*. Cambridge, MA: MIT Press.

International Forestry Resources and Institutions (IFRI) Field Manual. V.13, August 2008. Bloomington: Indiana University, Workshop in Political Theory and Policy Analysis. (Distributed in class.)

Ostrom, Elinor. 2005. *Understanding Institutional Diversity*. Princeton; NJ: Princeton University Press.

Assigned Readings

Assigned readings are available on Oncourse/Resources/Readings unless otherwise noted. Readings may be updated or added during the course.

Course Expectations

All seminar participants will:

- a. Read current literature about the relationship between people and forests.
- b. Learn the theoretical bases and concepts of collective action theory and institutional analysis.
- c. Learn the relationships between theoretical foundations and practical applications as developed in the International Forestry Resources and Institutions Research Program.
- d. Discuss the assumptions and hypotheses of the IFRI Research Program.
- e. Learn the principles of constructing a research design.
- f. Apply social science fieldwork methods through on-site research in a forest community.
- g. Learn methods for measuring forest conditions.

- h. Learn how to test hypotheses through basic statistical methods using fieldwork data.
- i. Complete the IFRI research forms using fieldwork data.
- j. Participate in writing and editing the final report to the study community.

In addition, Visiting Scholars will:

- k. Learn the elements of the IFRI relational database.
- I. Learn how to update, archive, and maintain the IFRI MS Access database.
- m. Practice using the IFRI database to enter, extract, and query IFRI data.
- n. Write a research proposal.
- o. Make a presentation to the class (topic will be decided with Dr. Tucker).

Logistics

The course schedule is intense and complex. In addition to regular class meeting times, we meet on several weekends and weekday evenings for fieldwork. Insofar as possible, fieldwork times and places have been scheduled (see the syllabus), but additional times will be scheduled for interviews with forest community members at their convenience.

Because we have a great deal of work to do in a short period of time, please arrive to class and other course activities a few minutes <u>before</u> they start, especially fieldwork events. (If the weather is poor, we advise you to arrive even earlier.)

The class will begin precisely at the times listed; if you are late, you are responsible for finding out what you missed from another participant after class.

It is important to check email regularly and provide a phone number in case there is a last minute change of plans. As with all fieldwork, we will encounter unforeseen challenges.

<u>Cooperation and patience are fundamental</u> – only as a team will we complete the course and the case study report successfully.

Course Requirements and Grading

- 1. <u>Participation, Assignments, Social and Forest Data Collection:</u> Participate fully in fieldwork and class discussions. Complete assignments as indicated for class. Come prepared for class discussions and contribute your opinions. Participation is 10% of the course grade.
- 2. <u>Field Notes:</u> Write field notes on social data following community visits and interviews. <u>Post field notes to Oncourse</u> by the deadline indicated for community visits or within 24 hours of doing an interview. Field notes are 10% of the course grade.
- 3. <u>IFRI Form Presentation:</u> Analyze the assigned IFRI forms. Present orally a short (15 minute maximum) analysis. The presentation should summarize the form and include: (1) a brief summary of the overall purpose of the form; (2) a brief discussion of the important sections and concepts found in the form; (3) questions that seem susceptible to misinterpretations; and (4) hypotheses that can be addressed with the data collected on the form. Form presentation is 5% of the grade.
- 4. <u>IFRI Form Completion:</u> Work as teams to complete the IFRI forms, due on <u>Wednesday</u>, <u>October 12</u> at class time. The final version of the forms must have all parts completed,

- and written in neat and legible handwriting or typing (or a combination). Forms must identify the individuals who completed them. Completed forms are 15% of the grade.
- 5. Brief Written Commentary on Readings and Questions for Discussion: 10% of the grade.
- 6. <u>Midterm Examination:</u> Complete a take-home midterm that covers all the material assigned in class through September 28. The midterm will be distributed in class on September 28. It is due on <u>Friday, September 30 by 5 p.m</u>. The midterm is worth 20% of the grade.
- 7. Case Study (required for graduate students, optional for IFRI visiting scholars):
 Be responsible for writing the case study. This entails organizing and writing the first, second, third and final drafts of the report, with participation of IFRI visiting scholars. The third draft is due on Wednesday, October 26 (the last day of class). The final draft will take longer than the duration of the course. The report must follow the format specified in the Workshop Style Manual. Consult the Chicago Manual of Style for additional editorial guidelines. The final version of the report is due on Friday,

 November 18 by 5:00 p.m. Submit the final to Oncourse/Resources/Final Report. Also submit one complete hard copy and one CD-ROM with complete text and appendices, including tables, figures, references and maps with all associated coverages and datafiles (excluding data entered in the IFRI database). The case study is worth 30% of the grade.

Additional Course Expectations for IFRI Visiting Scholars (IFRI Trainees)

- <u>Research Design:</u> Write a research design based on your research interests that incorporates IFRI methods or uses the IFRI database (5-8 pages). This is due <u>Monday</u>, <u>October 10.</u> The instructor will meet with you individually about this assignment.
- 2. <u>Presentation to the Class:</u> Present a talk to the class about your research interests and directions. You may opt to: (1) present your research design, or (2) present past research findings and discuss how future work could include IFRI. These presentations will be scheduled for October 17 and 24.
- 3. <u>Supplemental Technical Training (IFRI Database)</u>: Participate in the twice-weekly supplemental technical training classes on use and management of the IFRI database with Julie England.

Course Schedule

August 29:

Introduction

Monday 2-5 p.m., 513 N. Park

Class Themes

- Introduction of course, instructors and class participants
- E622 goals, responsibilities, and syllabus
- Introductory discussion of major questions and challenges related to natural resource management
- Origins of the International Forest Resources and Institutions (IFRI) Research Program

Guest Lecturer: Elinor Ostrom

Recommended Reading

Millennium Ecosystem Assessment. 2005. Ecosystems and Human Well-Being: Synthesis.

Island Press: Washington, DC Online:

http://www.maweb.org/documents/document.356.aspx.pdf

Websites of Interest

CIPEC: http://www.cipec.org/
CIFOR: http://www.cifor.cgiar.org/

Digital Library of the Commons: http://dlc.dlib.indiana.edu/

FAO: http://www.fao.org/forestry/index.jsp
Forest Trends: http://www.fao.org/forestry/index.jsp

International Association for the Study of the Commons (IASC):

http://www.indiana.edu/~iascp/

IUCN: http://iucn.org/themes/forests/index.html

Workshop in Political Theory and Policy Analysis http://www.indiana.edu/~workshop/

August 31:

Theoretical and Methodological Foundations

Wednesday 2-5 p.m., 513 N. Park

Class Themes

- Theoretical bases for understanding institutions for natural resource management
- Approaches to research design
- IFRI research strategy and conceptual model
- Principles and structure of relational databases

Guest Lecturer: Julie England

Assignment

Look over the IFRI Forms before class. Think about which ones you would like to present to the class. During class the IFRI forms will be assigned for presentation on September 7, 12, and 14 (you may not get your first choice).

Readings

Gibson, Clark, Margaret McKean, and Elinor Ostrom. 2000. "Explaining Deforestation: The Role of Local Institutions." Pp. 1-26 in *People and Forests: Communities, Institutions, and Governance*.

Gerring, John. 2004. "What Is a Case Study and What Is It Good For?" American Political Science Review 98(2):341-354

Ostrom, Elinor, and Mary Beth Wertime. 2000 (1994). "IFRI Research Strategy." Appendix. Pp. 243-268 in *People and Forests: Communities, Institutions, and Governance*. Cambridge.

Recommended

Bernard, H. R. 2006. Research Design: Experiments and Experimental Thinking. In *Research Methods in Anthropology: Qualitative and Quantitative Approaches.* Pp. 109-145. Lanham: Rowman & Littlefield.

Edwards, V. M. and N. A. Steins. 1998. "Developing an Analytical Framework for Multiple-Use Commons," *Journal of Theoretical Politics* 10(3):347-383.

September 5: LABOR DAY - NO CLASS

September 7:

Fieldwork Methods and Ethics & Introduction to Lothlorien, IFRI Form Presentations

Wednesday 2-5 p.m., 513 N. Park

Class Themes

- Introductory discussion of Lothlorien reports and *Unreal Estate*
- Discussion of fieldwork methods and ethics, taking field notes
- Presentation and discussion of three IFRI Field Manual Forms: Site Overview, Forest and Settlement

Assignment

Bring a 1-2 paragraph typed response to the questions: Based on the readings, what is your impression of Lothlorien? What would you like to learn more about during the fieldwork?

Readings

Lothlorien IFRI Reports:

Agarwal, C, et al. 1998. Creating a Community Through Natural Sanctuary: Lothlorien and Its Forest. W98I-5. Bloomington, IN: Workshop in Political Theory and Policy Analysis.

Khamaganova, E., et al. 2001. Revisiting the Elf Lore Family and the Lothorlien Forest. W01I-28. Bloomington, IN: Workshop in Political Theory and Policy Analysis.

Bauer, J. et al. 2006. Revisiting Elvin H.O.M.E. Inc. and the Lothlorien Forest. W06I-36. Bloomington, IN: Workshop in Political Theory and Policy Analysis.

Carspecken, L. Forthcoming. *An Unreal Estate* (selected sections). Bloomington: Indiana University Press, by permission.

Fluehr-Lobban, C. 1998. Ethics. In *Handbook of Methods in Cultural Anthropology*. Bernard, H. R., ed. Walnut Creek, CA: Altamira Press.

IFRI Field Manual Forms: Site Overview, Forest and Settlement

Tucker, C. Taking Field Notes (unpublished document).

September 10 SATURDAY

Meeting with Lothlorien Elder Council and Community 1:00 - 5:00 p.m. (fieldwork return time is approximate) Meet at the Workshop parking lot at 1:00 p.m. to leave for Lothlorien

Special Notes

Bring a field notebook and a pen or pencil. <u>DO NOT</u> bring your IFRI Field Manual for community visits.

September 12:

Managing Common-Pool Resources and Understanding Institutions; Discussion of Visit to Lothlorien and Field Notes; IFRI Form Presentations

Monday 2-5 p.m., 513 N. Park

Class Themes

- Discussion of readings and commentaries on theoretical approaches to institutions for management of common-pool resources
- Presentation and discussion of three IFRI Field Manual Forms (User Group, Association, User Group to Forest Relationship)

Assignments

Submit your fieldnotes from Saturday, September 10 to Oncourse/Resources/Fieldnotes before class. Hand in a hard copy of your fieldnotes at class time.

Write a 1-page commentary or critique on any two of the readings (each book chapter is considered one reading). IFRI Forms <u>Do Not</u> count. Due at class time.

Readings

IFRI Field Manual Forms: User Group, Association, User Group to Forest Relationship

McKean, Margaret A. 2000. "Common Property: What Is It, What Is It Good For, and What Makes It Work?" Pp. 27-55 in *People and Forests: Communities, Institutions, and Governance*.

Ostrom, E. 2005. Chapters 1, 2 and 8 in *Understanding Institutional Diversity*.

Recommended

Ostrom, E. 2005. Chapter 3 in *Understanding Institutional Diversity*.

September 14:

Global Forest Issues and Indiana Forests, IFRI Form Presentations, Discussion of Field Notes from First Visit to Lothlorien

Wednesday 2-5 p.m., 513 N. Park

Guest Lecturer: Burney Fischer

Class Themes

- Discussion of Indiana forests
- Presentation and discussion of four IFRI Field Manual Forms: Forest Plot, Forest Products, Governance, Organizational Inventory

• Discussion of field notes from September 10

Assignments

Bring two questions (typed to hand in at the end of class) based on readings regarding global forest problems and/or Indiana forests.

Read everyone's field notes on Oncourse from September 10 before class. Come prepared to comment on content and differences among note-taking styles.

Readings

FAO. 2005. State of the World's Forests 2005. Part I: Institutional Issues, pp. 42-55. Rome: Food and Agriculture Organization of the United Nations.

FAO. 2003. *State of World's Forests 2003.* Part 2: Selected Current Issues in the Forest Sector: Forests and Poverty Alleviation, pp. 60-73. Rome: Food and Agriculture Organization of the United Nations.

Homoya, M.A., D.B. Abrell, J.R. Aldrich, and T.W. Post. 1985. The Natural Regions of Indiana. *Proc. Indiana Acad. Sci.* 94:245-268.

IFRI Field Manual Forms: Forest plot, Forest Products, Governance, Organizational Inventory.

Lindsey, A.A. 1997. Walking in Wilderness. In: Jackson, M.T., ed. 1997. *The Natural Heritage of Indiana*. Bloomington, IN: Indiana University Press: 113-123.

Parker, G.R. 1997. The Wave of Settlement. In: Jackson, M.T., ed. 1997. *The Natural Heritage of Indiana*. Bloomington, IN: Indiana University Press: 369-382.

September 17 (or 18): Visit to WILD MAGICK GATHERING AT LOTHLORIEN To Be Arranged

Special Notes

Bring a field notebook and a pen or pencil. <u>DO NOT</u> bring your IFRI Field Manual for community visits.

September 19:

Property Rights Considerations in Common-Pool Resources; Identifying User Groups Monday 2-5 p.m., 513 N. Park

Class Themes

- Identifying User Groups in Malshegu Sacred Grove reading
- Discussion of readings on property rights dimensions of forest management
- Discussion of fieldwork and fieldnotes from Wild Magick Gathering

Assignments

Submit your field notes from the Wild Magick gathering to Oncourse before class.

Hand in your written analysis of the IFRI User Group(s) and Forest Associations(s) in:

Dorm-Adzobu, Clement, and Peter G. Veit. 1991. *Religious Beliefs and Environmental Protection: The Malshegu Sacred Grove in Northern Ghana*. Maximum 1 page typed (a brief description of each user group and association is adequate). Be prepared to discuss the rationale for your decisions in class.

Readings

Banana, Abwoli, and William Gombya-Ssembajjwe. 2000. "Successful Forest Management: The Importance of Security of Tenure and Rule Enforcement in Ugandan Forests." Pp. 87-98 in *People and Forests: Communities, Institutions, and Governance*.

Dorm-Adzobu, Clement, and Peter G. Veit. 1991. *Religious Beliefs and Environmental Protection: The Malshegu Sacred Grove in Northern Ghana*. Nairobi, Kenya: World Resources Institute.

Netting, R. McC. 1976. "What Alpine Peasants Have in Common: Observations on Communal Tenure in a Swiss Village." *Human Ecology* 4(2):135-146.

September 21:

Forest Mensuration

Wednesday 2-5 p.m., 513 N. Park

Guest Lecturer: Burney Fischer

Class Themes

- Methods of forest assessment and measurement
- Forest mensuration techniques and practice session
- How IFRI measures forests.

Readings

Fischer, B.C. 2006. Forest Management in the Upland Central Hardwoods: A Suggested Status Report. In: Indiana Society of American Foresters. 2006. The Indiana Forester. Vol. 26(3):2-3.

Woodall, C.W.; Webb, M.N. 2011. *Indiana's forest resources, 2010*. U.S. Department of Agriculture, Forest Service, Northern Research Station. RN-NRS-103.

Woodall, C. W.; Webb, M. N.; Wilson, B. T.; Settle, J.; Piva, R. J.; Perry, C.H.; Meneguzzo, D. M.; Crocker, S. J.; Butler, B. J.; Hansen, M.; Hatfield, M.; Brand, G.; Barnett, C. 2008. *Indiana's Forests 2008*. USDA, Forest Service, Northern Research Station, RB-NRS-45.

September 25 SUNDAY:

Forest Mensuration Work

Sat. 8:30 a.m. - 5:00 p.m. Meet at Workshop parking lot (513 N Park). Come dressed for work in the forest. Bring a small notebook and pencil. Lunch will be provided.

Readings

Dowd, Kathleen. "Preparation for the Fieldwork in the Forest." Things to bring for IFRI fieldwork. Unpublished paper.

Longmire, Sam. "The Most Dangerous Things in the Southern Indiana Woods." Unpublished paper.

Assignment

Each forest team must turn in legible, completed plot forms from the forest mensuration work before departing Lothlorien in the afternoon.

September 26:

Complex Social-Ecological Systems; Progress in IFRI Case Study Research Monday 2-5 p.m., 513 N. Park

Guest Lecturer: Elinor Ostrom

Class Themes

- Challenges of analyzing and building sustainable social-ecological systems
- Discussion of fieldwork findings and questions, identification of gaps in data

Assignment

Based on the readings, write two typed questions suitable to ask Elinor Ostrom (you may ask for clarifications on the readings, further information, or ask about any issue in the readings that seems puzzling or needs expansion). Hand in at end of class.

Readings

Fréchette, A. and N. Lewis. 2011. "Pushing the boundaries of conventional forest policy research: Analyzing institutional change at multiple levels." *Forest Policy and Economics*. Corrected proof online:

http://www.sciencedirect.com/science/article/pii/S1389934111000931

Ostrom, E. 2009. "A General Framework for Analyzing Sustainability of Social-Ecological Systems." *Science* 325(5939) (24 July): 419-422.

http://www.sciencemag.org/cgi/content/full/325/5939/419

Ostrom, E. 2005. Chapter 9: "Robust Resource Governance in Polycentric Institutions" in *Understanding Institutional Diversity*.

September 28:

Further Considerations of Research Design and Hypothesis-Testing; Lothlorien Case Study Progress

Wednesday 2-5 p.m., 513 N. Park

Class Themes

- Examples and challenges of research designs within and beyond IFRI
- Hypotheses testing
- Work on IFRI Forms
- Discussion of progress in IFRI case study research

Assignment

Bring 2-3 typed hypotheses that could be explored using IFRI data. Due at class time.

Readings

Cardenas, Juan-Camilo. 2001. "Introducing Field Experiments into the IFRI Research Strategy (A Research Proposal)."

Fleischman, F., K. Boenning, G. Garcia-Lopez, S. Mincey, M. Schmitt-Harsh, K. Daedlow, M. C. Lopez, X. Basurto, B. Fischer, and E. Ostrom. 2010. "Disturbance, Response, and Persistence in Self-Organized Forested Communities: Analysis of Robustness and Resilience in Five Communities in Southern Indiana." *Ecology and Society* 15(4):9. http://www.ecologyandsociety.org/vol15/iss4/art9/

Poteete, A. R. and E. Ostrom. 2004. "In Pursuit of Comparable Concepts and Data about Collective Action." *Agricultural Systems* 82:215-232.

Schweik, C. 2000. "Optimal Foraging, Institutions, and Forest Change: A Case from Nepal." Pp. 99-134 in *People and Forests: Communities, Institutions, and Governance.*

*The take home <u>Mid-term</u> will be distributed at the end of class. It is due by <u>5:00</u> p.m. on Friday, September 30.

September 30 FRIDAY

Midterms Due at 5 p.m. Submit digitally to Oncourse/Assignments AND by Email to tuckerc@indiana.edu.

October 1 SATURDAY

Forest Mensuration Work

Sat. 8:30 a.m. - 5:00 p.m. Meet at Workshop parking lot (513 N Park).

Come dressed for work in the forest. Bring a small notebook and pencil. Lunch will be provided.

Assignment

Each forest team must turn in legible, completed plot forms from the forest mensuration work before departing Lothlorien in the afternoon.

October 3

Theoretical Conundrums and Progress in Understanding Forest Governance, Collective Action and Ecological Outcomes

Monday 2-5 p.m., 513 N. Park

Class Themes

- Discussion of theoretical conundrums related to collective action for forest management
- Issues and progress in the case study
- Work on IFRI form completion

Assignment

Write two or more typed questions or analytical comments regarding the readings. Hand in at beginning of class. (Address at least two of the readings).

Readings

Chhatre, A. and A. Agrawal. 2008. "Forest Commons and Local Enforcement." PNAS 105(36):13286-13291.

Gibson, C.G., J. Williams and E. Ostrom. 2005. "Local Enforcement and Better Forests." *World Development* 33(2):273-284.

Tucker, C. M. 2010. "Learning on Governance in Forest Ecosystems: Lessons from Recent Research." *International Journal of the Commons* 4(2):687-706. URL: http://www.thecommonsjournal.org/index.php/ijc/article/view/224/170

Varughese, G. 2000. "Population and Forest Dynamics in the Hills of Nepal: Institutional Remedies by Rural Communities." Pp. 193-226 in *People and Forests: Communities, Institutions, and Governance*.

Recommended

Agrawal, A., and S. Goyal. 2001. "Group Size and Collective Action: Third Party Monitoring in Common-Pool Resources." *Comparative Political Studies* 34(1):63-93.

Nagendra, H. 2008. "Fragmentation and Regrowth in an Institutional Mosaic of Community, Government and Private Ownership in Nepal." *Landscape Ecology* 23:41-54.

Poteete, A. R., and Elinor Ostrom. 2004. "Heterogeneity, Group Size and Collective Action: The Role of Institutions in Forest Management." *Development and Change* 35(3):435-461.

October 5:

Types of Analysis and Hypotheses; Permanent Plots vs. Variable Plots Wednesday 2-5 p.m., 513 N. Park

Guest Lecturer: Burney Fischer

Class Themes

- Discussion of hypotheses for the present and past studies
- Comparability of forest data
- Permanent vs. variable forest plots in longitudinal studies
- Parametric and non-parametric statistics
- Types of variables and types of analysis
- IFRI form completion

Assignment

Submit a typed list of 2-3 specific hypotheses to explore for the Lothlorien case study.

Readings

Gillespie, J.R. 1998. "Pros and Cons of Continuous Forest Inventory: Customer Perspectives." Paper presented at the "Integrated Tools for Natural Resources Inventories in the 21stCentury" Conference, August 16-19, 1998, Boise, Idaho.

Irland, L. and A. Camp. 2005. "Long-term Forest Research: Underappreciated and Underfunded." *Yale Environmental News*.

Kershaw, J.A. and B. C. Fischer, B.C. 2006. *A Permanent Plot Design Strategy for The Nature Conservancy Indiana Properties*, 6p.

Meretsky, Vicky. 2001. "Introduction to Biometrics for IFRI." Unpublished manuscript. SPEA.

Tucker, C. M., J. C. Randolph, T. Evans, K. P. Andersson, L. Persha, and G. M. Green. 2008. "An approach to assess relative degradation in dissimilar forests: toward a comparative assessment of institutional outcomes." *Ecology and Society* 13(1):4. [online] URL: http://www.ecologyandsociety.org/vol13/iss1/art4/Insight

Recommended

Curtis, R.O. and D.D. Marshall. 2005. *Permanent-Plot Procedures for Silvicultural and Yield Research*. USDA Forest Service Pacific Northwest Research Station, General Technical Report, PNW-GTR-634, 86p.

October 10: Lindley Hall 025 Computer Lab
Computer Session: Statistical Analysis of IFRI Data
Monday 2-5 p.m.

Class Themes

- Practice session using Excel and SPSS for data analysis
- Address questions concerning the completion of IFRI forms for this case
- Discuss outline for case study report

Assignment

Visiting Scholars' research proposals are due on Oncourse and in hard copy at class time. (Proposals will be available to the whole class through Oncourse).

Reading

Nagendra, H. and E. Ostrom. 2011. The Challenge of Forest Diagnostics. *Ecology and Society* 16(2):20. Online: http://www.ecologyandsociety.org/vol16/iss2/art20/

October 12: Lindley Hall 025 Computer Lab

Creating and Testing Hypotheses

Wednesday 2-5 p.m.

Class Themes

 Statistical analysis of hypotheses for case study using forest data collected during fieldwork.

Assignments

Turn in completed IFRI forms at beginning of class

Turn in case study outline

Discuss hypotheses and run statistical tests with current forest data

October 17:

Visiting Scholars' Presentations; Discussion of Case Study Analyses and Write-up Progress

Monday 2-5 p.m., 513 N. Park

Class Themes

- Visiting Scholars' presentations and discussion
- Discussion of writing the case study report

Assignment

Come prepared to discuss challenges related to writing the case study report. Read visiting scholars' research proposals.

October 18 TUESDAY: First draft of the case study report is due at 5 p.m. To be placed on Oncourse for everyone to read before class time on October 19.

October 19:

Discussion of First Draft of the Case Study

Wednesday 2-5 p.m., 513 N. Park

Class Themes

• Discussion of revisions for the first draft of the report.

Assignment

Prepare comments and recommendations for revising the first draft of the case study report.

October 24:

Visiting Scholars' Presentations, Report Revision Progress & Course Improvement Discussion

Monday 2-5 p.m., 513 N. Park

Class Themes

- Visiting Scholars' research proposal presentations
- Discussion of any questions related to revisions of the case study report
- Course improvement discussion

Assignments

Graduate students will be prepared to discuss visiting scholars' proposals Discussion of course improvement

Be prepared to discuss any unresolved questions on the case study revisions

Readings

Visiting Scholars' Research Proposals

October 25 TUESDAY: Second draft of the case study report is due at 9 p.m. To be placed on Oncourse for everyone to read before class time on October 26.

October 26:

Discussion of Second Draft of the Case Study Report and Course Summary Wednesday 2-5 p.m., 513 N. Park

Class Themes

Suggestions for edits and revisions for the case study report will be discussed. <u>Final draft is</u> due Monday, November 21 at 5 p.m.

Concluding remarks

Assignment

Read second draft of the case study report prior to class and come with comments and recommendations to discuss during class.

Special Notes

Class reception will follow.

November 18, 2011:

Final Draft of the Case Study Report Due at 5 p.m. to Oncourse/Resources/Final Report AND in hard copy. Include a CD-ROM of all text, data (any analysis not in the IFRI database), figures, tables, maps, GIS coverages and .info files.

General Expectations for written work:

- Legible font (e.g., Times New Roman 12pt, Arial 11 pt, Calibri 12 pt, Verdana 11 pt)
- Unless otherwise specified, line spacing is your choice: single, 1.5 or 2-spacing is acceptable. Double space the case study report.
- 1" margins on all sides
- Include your name on each page
- Page numbers at bottom center (only if more than 1 page long)
- Indent each paragraph

- In Text citations: provide author and date (Smith 2000). Add the page number if the information is quoted or specific to a page (Smith 2000:19).
- Follow the Chicago Manual of Style to resolve questions of writing and usage.
- Use the American Anthropologist reference style.
- Staple pages together
- If possible, print out double-sided pages to save paper
- Keep a copy of each paper/assignment for your own records
- Written assignments must be submitted in hard copy at class time, and submitted digitally to Oncourse before class on the due date (except for handwritten jot notes).

Grading:

A = 93-100%	A - = 90 - 92.9%	B+ = 87-89.9%
B = 83-86.9%	B- = 80-82.9%	C+ = 77-79.9%
C = 73-76.9%	C- = 70-72.9%	D+ = 67-69.9%
D = 63-66.9%	D- = 60-62.9%	
F = below 60%		

<u>Late submissions of assignments</u> will be discounted 10% of the total possible points per day. This is only fair to those in the class who made every effort to meet deadlines, otherwise they would be disadvantaged relative to those who took more time.

Oncourse:

- Grades, handouts, assignment instructions and Powerpoint presentations will be posted to Oncourse.
- Students are expected to post digital copies of their work to Oncourse/Resources unless otherwise indicated.
- **Do NOT use Oncourse to send messages to the professor,** because it is impossible to send a reply to you directly, and your email address is not visible to the instructor by this route.

Policy for Emergency Situations:

If you have a medical or personal emergency that prevents you from attending class, coming to fieldwork, or completing an assignment on time, let the professor know immediately. Reasonable adjustments will be made with proper documentation of the emergency. Medical conditions must be documented by a doctor's note. Family emergencies or deaths should be documented by appropriate authority (counselor, obituary...).

Policy on Plagiarism:

Plagiarism in written assignments (i.e. the copying of material without citation of the source) is unacceptable behavior in the university. It will lead to a zero on the assignment or examination if they are of a minor nature, and to a fail grade in the course in cases of extensive cheating (i.e. more than two sentences copied without attribution).

Recommended for Your Library

Ascher, William. 1999. Why Government Waste Natural Resources: Policy Failures in Developing Countries. Baltimore and London: Johns Hopkins University Press.

Ascher, William. 1995. *Communities and Sustainable Forestry in Developing Countries*. San Francisco: ICS Press.

Baland, Jean-Marie and Jean-Philippe Platteau. 2000. *Halting Degradation of Natural Resources: Is There a Role for Rural Communities*? New York: Oxford University Press.

Berkes, Fikret and Carl Folke. 2000. *Linking Social and Ecological Systems: Management Practices and Social Mechanisms for Building Resilience*. Cambridge: Cambridge University Press.

Bromley, Daniel W., ed. 1992. *Making the Commons Work: Theory, Practice, Policy*. San Francisco, CA: ICS Press.

Freudenberger, K. 1994. *Tree and Land Tenure, Rapid Appraisal Tools. Community Forestry Field Manual No. 4.* Rome: Food and Agricultural Organization (FAO) of the United Nations.

Geist, Helmut J. and Eric F. Lambin. 2001. What Drives Tropical Deforestation? A metaanalysis of proximate and underlying causes of deforestation based on subnational case study evidence. LUCC Report Series No. 4. Louvain-la-Neuve, Belgium: LUCC International Project Office.

Honadle, George. 1993. "Institutional Constraints on Sustainable Resource Use: Lessons from the Tropics Showing that Resource Overexploitation is not Just an Attitude Problem and Conservation Education Is Not Enough." In *Defining Sustainable Forestry*, eds. G. H. Aplet, et al. Washington, DC: Island Press.

Jackson, M.T. ed. 1997. The Natural Heritage of Indiana. IU Press.

Kaimowitz, David, and Arild Angelson. 1998. *Economic Models of Tropical Deforestation: A Review*. Bogor, Indonesia: Center for International Forestry Research.

King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton, NJ: Princeton University Press.

McCay, Bonnie and James Acheson, eds. 1987. *The Question of the Commons*. Tucson: University of Arizona Press.

Moran, Emilio and Elinor Ostrom, eds. 2005. Seeing the Forest and the Trees: Human-Environment Interactions in Forest Ecosystems. Cambridge, MA: MIT Press.

National Research Council. 2002. *The Drama of the Commons*. Committee on the Human Dimensions of Global Change. E. Ostrom, T. Dietz, N. Dolsâk, P.C. Stern, S. Stonich, E.U. Weber, eds. Washington, DC: National Academy Press.

Renzetti, Claire M. and Raymond M. Lee, eds. 1993. *Researching Sensitive Topics*. A Sage Focus Edition. Newbury Park, CA: Sage Publishers.

Rudel, T. K. 2005. *Tropical Forests: Regional Paths of Destruction and Regeneration in the Late Twentieth Century.* New York: Columbia University Press.

Sayer, Jeffery, ed. 2005. *The Earthscan Reader in Forestry & Development*. London and Sterling, VA: Earthscan Press.

Thomson, J. and K. Freudenberger. 1998. Crafting Institutional Arrangements for Community Forestry. Community Forestry Field Manual No. 7. Rome, Italy: Food and Agricultural Organization (FAO) of the United Nations.

Tucker, Catherine M., J. C. Randolph, and Edwin Castellanos. 2007. Institutions, Biophysical Factors and Forest Conditions: An integrative analysis of private and communal forests in Guatemala and Honduras. *Human Ecology* 35(3):259-274.

Varughese, G., and E. Ostrom. 2001. "The Contested Role of Heterogeneity in Collective Action: Some Evidence from Community Forestry in Nepal." *World Development* 29 (5): 747-65.

Williams, Michael. 2003. *Deforesting the Earth: From Prehistory to Global Crisis.* Chicago: University of Chicago Press.

Young, Oran. 2002. The Institutional Dimensions of Environmental Change: Fit, Interplay, and Scale. Cambridge, MA: MIT Press.