UCLA Anderson
School of Management

BUSINESS AND THE ENVIRONMENT

Management 246A, Section 01
Winter Quarter 2010

COURSE HOURS	Wednesdays from 7:00-9:50pm in Gold Hall, Room B-301
WEB SITE	http://ccle.ucla.edu/course/view.php?id=11317
INSTRUCTOR	Professor Charles J. Corbett Gold Hall, Room B-507 (also Mullin Commons, Room F-402) Phone: 310-825-1651 E-mail: charles.corbett@anderson.ucla.edu
OFFICE HOURS	By appointment and immediately after class
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COURSE DESCRIPTION

CONTENT

This course aims to provide a broad framework for understanding how business interacts with issues related to sustainability. We will focus mostly, but not exclusively, on the environmental dimension of sustainability. The course will cover tools and frameworks that firms use in practice. Graduate students from other departments at UCLA are also particularly encouraged to take the class.

There are many ways in which organizations interact with the natural environment, and many reasons to care about such interactions. Those reasons include purely business-minded reasons such as marketing opportunities and potential for cost reductions, legal reasons such as liability concerns and current and upcoming regulations concerning emissions and product takeback and ethical reasons such as a personal or institutional desire to "do good." Each of these reasons is thoroughly legitimate, but, in this course, we will take a relatively business-oriented perspective to environmental issues. In other words, we will focus on the question: "what do I need to know about environmental issues to make my company more successful?"

The answer to that question, however, increasingly depends on the company and industry. In practice, "sustainability" means very different things for pharmaceutical firms, banks, energy companies, entrepreneurs, etc. Therefore, this course will adopt a matrix structure following the main functional areas in the MBA program: we will examine environmental issues from the perspective of economics, finance, marketing, operations, accounting, entrepreneurship, strategy, HROB and global enterprise. All students will pick an industry and company to focus on during the course. In this way, each student will be exposed to a broad range of environmental issues and gain an in-depth understanding of how environmental issues affect a particular industry and company. Several guest speakers with extensive experience in industry will be invited to further increase the practical component of the course.

OBJECTIVES AND METHOD

Due to the fast-changing nature of this field, the course will rely heavily on experiential and student-directed learning. There are some fundamental principles that are relatively constant over time that students should know, and we will cover those in class (related to environmental economics, strategy, reporting, operations and others). However, much of what happens under the heading of "business and

the environment" changes so rapidly that the main objective of the course is to help students become fast learners; this will allow students to keep themselves up-to-date in whatever areas of business and sustainability are of most relevance to them.

As a result, the course will provide extensive background reading materials, but the sessions will not revolve around lectures and case discussions of those materials, but instead around what the students have learned from those materials and from their own independent research.

To structure those discussions and to introduce a consistent thread to be maintained throughout the course, students will work in small teams (three to four students, including at least one non-MBA student) studying an industry and a particular organization within that industry, of their choice. For each session, whether on marketing, strategy, operations, law, global issues, etc., the teams will analyze how that session relates to their chosen industry and firm. For instance the green marketing session, students will combine the background materials provided with their own independent research to analyze what green marketing approaches are used or could be used in their chosen industry. They will then analyze and critique the green marketing campaigns used by the firm on which they have chosen to focus. The preparation for each session will therefore contribute towards the final report and presentation during which each team will present their analysis of the chosen industry and firm from all the perspectives covered in the course. By that time, students should know more about environmental issues in that particular industry than most people who work in that industry, and more about environmental issues in their chosen company than most employees of that company. All team final reports and presentations will be shared with all teams.

The final project is a group project and a team effort. Some of the intermediate steps will be in the form of individual assignments. For instance for the green marketing assignment, each student will individually pick a few green marketing campaigns, including that of the company they are focusing on, and compare and critique the campaigns in light of the background readings provided. After the assignment is completed, students can pool their work towards preparing the final report.

READINGS

All required materials for the course are available online (to save paper and money). Some will be posted on the course Web site; others are available through the UCLA Library using the links in this syllabus. A few of the materials have to be purchased through the course Web site at HBSP. Instructions from HBSP on how to access the course:

- Click on the link below to order the course materials.
  http://cb.hbsp.harvard.edu/cb/access/5141113
- If you have not registered with Harvard Business Online, you will be required to do so.
- Note that product formats may differ; some may require that a hard copy be shipped to you via air mail. Electronic course materials are in PDF (Portable Document Format) and should be viewed with Adobe Reader, available free at www.adobe.com. Students can access PDF files of course materials via a link on Harvard Business Online for six months from the date of purchase.
- You will have immediate access to the materials upon placing your order; for subsequent access, you must login to http://harvardbusinessonline.org.

Note that many sessions contain a lot of reading material. Make sure you at least skim all of it, and focus more deeply on the articles that interest you most. Each session indicates which readings are required, which are suggested and which are solely background materials. You should definitely explore on your own too; new readings appear all the time. I will cold call in class to ask about all of the required

readings and cases. I strongly recommend that you start downloading the readings well ahead of time; coming to class unprepared "because I couldn't access the readings" is not an acceptable excuse.

SUGGESTED BACKGROUND READINGS

These will not be used in class, but are among the many inspiring readings to increase your general knowledge of the subject.

- J. Diamond. *Collapse*.
- M. Epstein. *Measuring Corporate Environmental Performance*.
- M. Epstein. *Making Sustainability Work.*
- C. Frankel. *In Earth's Company*.
- A. Gore. *An Inconvenient Truth.*
- T. Graedel and B. Allenby. *Industrial Ecology*.
- P. Hawken. *Ecology of Commerce*.
- P. Hawken, A. Lovins, L. Lovins. *Natural Capitalism: Creating the Next Industrial Revolution*.
- B. Lomborg. *The Skeptical Environmentalist*.
- J. McLennan. *The Philosophy of Sustainable Design*.
- R. Orsato. *Sustainability Strategies.*
- F. Reinhardt. *Down to Earth*.
- J. Romm. *Cool Companies*.

There are many other good books on environmental science and management aimed at a broad audience. Try to read broadly, you will find that a lot of what is discussed today is not always new.

BACKGROUND TEXTBOOKS

These will also not be used in class, but are good references:

- R. Turner, D. Pearce, I. Bateman. *Environmental Economics: An Elementary Introduction*.
- H. Folmer, H. Gabel. *Principles of Environmental and Resource Economics*.
- G. Masters. *Introduction to Environmental Engineering and Science*.

GRADING

There will be no final exam. The final grade will be determined as follows:

Class Participation:	25%	
Group Presentation ("Mini-Briefing"):	10%	
Assignments:	30%	(4 individual assignments)
Group Project:	35%	(report and presentation)

Grading will follow, to the extent possible and reasonable, the suggested distribution of grades for MBA elective courses:

A+, A, A-	No more than 50% of the class
B+ or below	At least 50% of the class

CLASS PARTICIPATION

This course will be quite heavily discussion-based, as is inevitable given the nature of the topic. As a result, you should be well prepared to participate in these discussions. This means reading the materials for that session, *thinking about them* and being creative and entrepreneurial in finding and digesting other relevant material from whatever sources you like to use. Based on feedback from past students, I will frequently cold call during the course, but as a rule you should be proactive in participating and not wait to be called. You will also receive considerably more participation brownie points for disagreeing with a previous comment than by saying "I agree with everything that's been said so far and just want to add one small point..."

GROUP PRESENTATION (OR "MINI-BRIEFING")

As another way to broaden the scope of the course, most sessions will include a brief presentation by a group of students on a focused topic of their choice. (This is entirely separate from the group projects below.) The topic should be a brief discussion of a recent development in the environmental arena that you think is not as widely known as it should be. For instance, it may be related to the recent Copenhagen summit, it may be an introduction to water footprinting, it may cover a cool new technology you came across, it may address debates about upcoming local legislation, it may review a recent book in this area, etc. In all cases, please consult with me first. The presentation should be no more than five minutes long (i.e., keep it to two to three slides), plus five minutes Q&A. At the end of the session, I will ask all students to (anonymously) grade the team's presentation, and will take that information into account when grading each team's mini-briefing.

ASSIGNMENTS

The four individual write-ups each count for 7.5% of the final grade. The individual assignments are due in weeks 2, 3, 4 and 5, all relatively early in the course, to avoid conflict with projects and final exams towards the end of the quarter.

1. One assignment is a series of simple LCA exercises to introduce you to a common way of measuring environmental impacts.
2. One assignment asks you to think about how to convert environmental impacts into monetary values.
3. One assignment looks into sustainability reporting, and gives you an opportunity to provide a critical comparison of three different sets of sustainability reports.
4. One assignment asks you to study and discuss a few environmental advertising campaigns. Start this one early; at least, start keeping an eye out for environmental advertising, so you will have some material to work with when this assignment is due.

GROUP PROJECT

Each group of three to four members chooses an industry and a firm within that industry to analyze throughout the course. The final report and presentation will summarize the group's findings related to that industry and firm, from each of the perspectives covered in the course. Think of the final report as a comprehensive assessment to the CEO of the firm, advising on what you think the firm's sustainability strategy should be, along each of the dimensions discussed in class (and more). You are free to structure the report in whatever way you think is best, but it should include sections on topics such as:

- What are the main environmental impacts of this industry/firm? Provide qualitative and quantitative assessments.
- What are the main regulatory and economic issues, related to sustainability, that affect the industry/firm (e.g., Clean Air Act, climate change, biodiversity, resource depletion)?
- What are the main opportunities for this industry/firm to reduce its environmental impact?
- What are the strategic considerations the firm should consider? Is it or should it be a leader or a follower in terms of sustainability? Why? What are others doing?
- What form of green marketing does the firm do? What should it do? What do others do?
- How does the firm report its sustainability efforts? How does that compare with others in the same industry and in other sectors?
- What financial threats or opportunities exist for the firm and what can it do about those (e.g., exposure to increase in raw material costs, emerging opportunities in carbon markets)?
- What international aspects should the firm keep in mind (e.g., where in the world does it have an environmental impact, and what pressures from different parts of the world might it be subject to)? What opportunities in other parts of the world exist?

At the end of the final presentation session, I will ask all students to (anonymously) grade each team's presentation, and will take that information into account when grading each team's report. In grading the group projects, I will solicit peer evaluations from all group members, and will assign individual grades based on your relative contribution to the group's work.

Groups should, to the extent possible, be mixed across disciplines; that is, non-Anderson students should be spread across different groups.

GUIDELINES FOR WRITTEN SUBMISSIONS AND ACADEMIC INTEGRITY

Be concise and precise. I look for quality of reasoning and logical consistency, not work based on "stream of consciousness." Use 11 or 12 point font; single spaced. Individual assignments should be performed entirely individually; you may only discuss your work with others after submitting it. And always cite your sources carefully; see for instance http://unitproj.library.ucla.edu/col/bruinsuccess/03/01.cfm for detailed guidelines on how to cite correctly, and see www.deanofstudents.ucla.edu (click on "Academic Integrity") or http://internal.anderson.ucla.edu/programs/mba/handbook/standards/honor.html for more information on the UCLA and the UCLA Anderson student honor code regarding academic conduct. All work should be submitted electronically through the course Web site; I will use Turnitin.com to verify originality.

COURSE OVERVIEW

SESSION	DATE	TOPIC
1	Jan 6	**Introduction: Environmental Science** ▪ Introduction To The Course ▪ Introduction To The Science Underlying Environmental Issues ▪ A First Look At The Link Between Sustainability And Financial Performance
2	Jan 13	**Life Cycle Assessment; Environmental Entrepreneurship** ▪ LCA Exercise (Hand-Drying; Commuting; Your Own Footprint) ▪ Case: The ReUse People ▪ Guest Speaker (7pm): Ted Reiff, President, The ReUse People
3	Jan 20	**Environmental Economics, Strategy And HR** ▪ Externalities; Valuing Environmental Goods ▪ Case: The Ambrose Hotel
4	Jan 27	**Environmental Marketing** ▪ Environment As A Basis For Differentiation; Green Advertising; Eco-Labels ▪ Case: Hayward Lumber ▪ Guest Speaker: Eugene Tseng, JD, Board Member, Green Seal
5	Feb 3	**Sustainability Reporting** ▪ Analyzing CSR Reports; The Global Reporting Initiative ▪ Case: Mattel ▪ Guest Speaker (7pm): Kathleen Shaver, Mattel, Director Corporate Responsibility
6	Feb 10	**Environmental Issues In Global Business** ▪ Managing Environmental And Social Impacts In Developing Countries ▪ Case: Freeport Indonesia ▪ Guest Speakers (7pm): Karolina Dekermenjian, FIJI Water, Director, Sustainability And Home Delivery; Rob Six, VP Communications, Roll International
7	Feb 17	**Environmental Risk Assessment And Green Supply Chains** ▪ Green Supply Chains (ISO 14001, EMAS, Incentives, Chemical Management Services, Closed-Loop Supply Chains) ▪ Carbon Footprinting ▪ Case: Natura Cosméticos (Brazil) ▪ Guest Speaker (7pm): Fred Gilbert, UTi, Director, Supply Chain Design And Innovation
8	Feb 24	**Environmental Operations; Sustainability Consulting** ▪ TQM And TQEM; Product And Process Design; Green Building ▪ Guest Speaker (7pm): Chris Park, Deloitte Consulting LLP, Principal
9	Mar 3	**Environmental Accounting And Finance** ▪ Incorporating Environmental Costs In Financial Statements ▪ Revisiting: Does It Pay To Be Green? Does The Stock Market Care? ▪ Emissions Trading Markets: Kyoto Protocol, EU ETS, CCX, … ▪ The Market For Carbon Offsets ▪ Guest Speaker (7pm): Seth Jacobson, Palmer Capital, Vice-President
10	Mar 10	**Project Presentations**

COURSE OUTLINE

SESSION 1

Introduction to the Course and to Environmental Science

This session will serve as an introduction to the course, and provide a high-level overview of the science underlying the main environmental issues confronting our planet. This is ***a lot of material*** that you're obviously not required to memorize, but you do need to be familiar with the existence of all of this, so at a minimum if you need to know more specifics later, you will know where to find it.

Session Outline

- Introduction to course
- Introductions, form teams, and choose industry and company to study
- Discussion of environmental science
- Preview of the link between sustainability and business performance

Readings

- "The Tragedy of the Commons." Hardin. *Science*. 162: 1243-1248. 1698.
  Available online: http://www.constitution.org/cmt/tragcomm.htm

Background Readings

Make sure you're familiar with the main points of at least one or two of these; and, you should find time to familiarize yourself with the remainder during the rest of the course.

- "Rapid Worldwide Depletion of Predatory Fish Communities." Myers and Worm. *Nature*. 423: 280-283. May 15, 2003.
  Available online: http://www.mindfully.org/Water/2003/Predatory-Fish-Depletion15may03.htm
- "Millennium Ecosystem Assessment: Ecosystems and Human Well-Being: Synthesis."
  Available online: http://www.millenniumassessment.org/documents/document.356.aspx.pdf
  (Do NOT print, 155 pages! Read the "Summary for decision makers" on pages 1-24; the rest is a great overview and resource though too.)
- IPCC (Intergovernmental Panel on Climate Change) Fourth Assessment Reports, from Working Group I (the physical science basis), II (impacts, adaptation and vulnerability) and III (mitigation of climate change). For each of these three, read the summary for policy makers; the summaries and the full reports are at http://www.ipcc.ch/ipccreports/assessments-reports.htm. For the summaries:
  I. http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf
  II. http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf
  III. http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-spm.pdf
- Browse the report from the California Environmental Protection Agency: "Climate Action Team Report to Governor Schwarzenegger and the Legislature."
  Available online: www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF
- Read the course materials posted on the course Web site; there will be several PowerPoint files (env_science1.ppt, etc.) containing the science overview that we will cover in class.

Background Readings: Journals to Watch

- *Scientific American*: http://www.sciam.com/earth-and-environment
- *Scientific American,* November 26, 2007 Special Report on Climate Change: http://www.sciam.com/article.cfm?id=special-report-climate-change
- *Nature*: http://www.nature.com/climate/index.html

- *New Scientist*: http://environment.newscientist.com/home.ns
- *Science*: www.sciencemag.org/
- *The Economist:* www.economist.org writes intelligently about environmental issues, business and politics.

Discussion Questions

1. How much of this did you already know before reading the PowerPoint slides and the reports listed under the readings, and what is new to you?
2. How has our understanding of the science behind these environmental challenges changed during the past five to ten years?
3. What do you make of these studies? Which ones do you trust, or do not? Why?
4. As a busy executive, how much do you need to know about all this, and how do you keep up?

SESSION 2

Life Cycle Assessment; Environmental Entrepreneurship

Session Outline

- Mini-briefing
- Case Discussion: The ReUse People, with Ted Reiff
- Life cycle assessment; discussion of the assignment

Case: The ReUse People (available on course Web site)
This case discusses The ReUse People, an organization that specializes in deconstruction of buildings, with the aim of reusing as much of the materials as possible, hence keeping them out of landfills. The organization is facing a classical growth-related dilemma: should it grow organically, keeping most of the work in-house, hence limiting its growth rate, or should it "franchise" its deconstruction approach by certifying other companies in the deconstruction process? The mission of The ReUse People is squarely environmental, but the organization is increasingly aiming to provide social benefits too by reaching out to community organizations and providing employment opportunities.

Discussion Questions

1. Should TRP expand by hiring its own deconstruction crews and operating its own warehouses, or should it train and certify other demolition contractors and become the leading authority on deconstruction?
2. What attributes should Ted Reiff look for in hiring new regional managers?
3. If you were in Ted Reiff's situation, about what else would you be concerned?
4. What does TRP's business model have in common with other environmental entrepreneurs?
5. What opportunities and threats does TRP pose to existing for-profit and non-profit businesses? If you were involved with one of those firms, how would you advise them to deal with TRP?
6. What suggestions would you have for TRP to help them fulfill their mission?
7. Where else can "closing the loop" help to keep materials out of landfills?

Individual Assignment on LCA
The assignment has three parts. Submit your answer to all three parts (***in one document***) by e-mail before the beginning of the session.

Part 1
The first part is an introductory life cycle assessment exercise, and is posted on the course Web site.

- Exercises 1a and 1b: Calculations of energy in life cycle assessments (1a: "drying your hands" and 1b: "getting to work").
- Think carefully about the sensitivity analysis. What assumptions would you question? How do they change the results? Make sure you perform some sensitivity analyses and report your findings.

In this exercise, you will need to know what a "functional unit" is in the context of life cycle assessment. You can search for this (there are many definitions and explanations), or see for instance the explanation offered by P&G at http://www.scienceinthebox.com/en_UK/sustainability/definition_en.html. Here, set the functional unit to be "1 pair of dry hands" and "1 roundtrip commute" respectively.

Part 2

The second part of the assignment requires you to examine your own environmental impacts more closely. Use the following two personal emissions calculators, from the EPA and from Environmental Defense, and find at least one additional calculator of your own choice:

- http://www.epa.gov/climatechange/emissions/ind_calculator.html
- http://www.fightglobalwarming.com/carboncalculator.cfm

Work through these three calculators, estimate your current carbon footprint, analyze why the three calculators give different results (if they do), and analyze what actions you could take to reduce your footprint. Summarize your findings for Part 2 on one page.

Part 3

The third part of the assignment allows you to start developing a feel for environmental impacts in the industry and company on which you've chosen to focus. Take the industry and company you're focusing on for the course, and pick at least two relevant environmental impacts. For instance, if you're focusing on the financial services sector and Wells Fargo, you could pick the impact of sending statements via e-mail instead of on paper, and the impact of employee commuting. Estimate the total life cycle impacts of both issues you've chosen, and try to put them in a bigger perspective, for instance by comparing to the total impacts of the company, or some other relevant benchmark. Do not worry about trying to be exact, but be very clear about your assumptions. Many of these types of high-level life cycle assessments can be done very quickly using the EIOLCA (economic input-output life cycle assessment) tool at www.eiolca.net. The method is well-explained on that Web site. Summarize and comment on your findings for Part 3 in 1 page (half-page for each of the two environmental impacts). Once you have done these exercises you should:

- Feel confident dealing with different units of analysis and be able to convert between them.
- Appreciate the role of different assumptions, and the need for transparency, in undertaking this type of analysis.
- Have a better feel for how you contribute to global warming and what you can do to reduce your personal impacts.

Background Readings on LCA

- "Note on Life Cycle Analysis." NPPC.
  Available online: http://www.umich.edu/~nppcpub/resources/compendia/CORPpdfs/CORPlca.pdf
- "SimaPro 7: Introduction into LCA."
  Available online: www.pre.nl/download/manuals/SimaPro7IntroductionToLCA.pdf
  Skim this, but make sure you understand what type of analysis you can do with software such as SimaPro. (This is not to endorse any one package over any other.)

Strictly Optional Background Resources

Additional information and online LCA calculators:

- For an extensive list of resources on LCA including discussion of existing software, see http://www.epa.gov/nrmrl/lcaccess/resources.html
- For another collection of resources on LCA (created by Kristen Perry, MBA candidate), see http://www.supplychainlca.com/
- You can look at the Life Cycle Assessment course from RMIT or take the free online course from the Harvard School of Public Health, at http://simapro.rmit.edu.au/ and http://www.sciencenetwork.com/lca/index.cfm respectively.
- A very easy-to-use high-level estimate of life cycle environmental impacts can be obtained from www.eiolca.net (Economic Input-Output Life cycle Analysis)

Sometimes one wishes to estimate the "total environmental impacts" of a region, city, industry, etc. If these impacts are expressed as how many acres of planet are needed to support that entity, this is often referred to as the ecological footprint. See, for example:

- Santa Monica's ecological footprint: http://www.smgov.net/Departments/OSE/Local_Environment/Ecological_Footprint.aspx
- For many other ecological footprints, see the Global Footprint Network, at: http://www.footprintnetwork.org/en/index.php/GFN/

SESSION 3

Environmental Economics; Environment and Strategy

Session Outline

- Environmental valuation; discussion of the assignment
- Case Discussion: The Ambrose Hotel
- Environment and strategy
- Mini-briefing

Case: The Ambrose Hotel (available on course Web site)
The case traces the story of the Ambrose Hotel, a small hotel based in California whose owner has invested in green practices and is interested in pursuing an eco-labeling strategy in order to better communicate her environmental achievements. This case emphasizes the difference between the adoption of environmental management practices and their communication through eco-labels. It highlights the challenges associated with the use of eco-labels as an environmental differentiation strategy when several emerging eco-labels are in competition. The students are asked to evaluate the costs and benefits associated with adopting an emerging eco-label such as the Leadership in Energy and Environmental Design accreditation for Existing Buildings (LEED EB) label. The case examines whether there are any advantages of being a first mover in such a situation and what the options are for small companies interested in differentiating their products based on their environmental component. The case provides details about the Green Seal and the LEED EB standards.

Discussion Questions

1. Why did Deirdre Wallace go green? Please explain what facilitated the development of the Ambrose greening strategy.
2. Should Deirdre adopt an eco-label? What are the pros and cons of such a communication strategy?
3. Please compare the different labels available. Which eco-label would provide the most value for the Ambrose Hotel?
4. Deirdre is considering several future growth opportunities: opening more hotels in other locations, and/or offering consulting services to other hotels who want to become green. What would you recommend, and why?

Externalities

A fundamental concept in environmental economics is that of an "externality." Some definitions of this include:

- The side effect on an individual or entity due to the actions of another individual or entity. For example, the production of energy in a nuclear power plant benefits the owners of the power plant, but creates externalities in the form of radioactive waste for the environment and its inhabitants.
- An externality is present whenever an individual's utility or production relationships include real (i.e., non-monetary) variables, whose values are chosen by others (persons, corporations, governments) without particular attention to the effects on the individual's welfare.

Individual Assignment: Externalities

Part 1

Describe two environmental externalities you experience in one day and how much each costs or benefits you. "Environmental" broadly defined: analyzing noise pollution from your neighbor is OK, but analyzing the value of free-riding on your neighbor's WiFi connection is not.

- How much would you be willing to pay to remove (or get) the externality? How much are you willing to accept in exchange for continuing to experience the externality? Be precise: give a figure in US$ and explain how you arrived at that figure. You MUST provide and justify actual numbers; answering "I cannot put a value on it" is not acceptable.
- How would you find out what the cost or value of each of these externalities is to society? How would you measure that? Try to ask some friends or relatives how much they would be willing to pay or accept for the same externality. How would you get a more well-founded valuation?
- How would you validate your measures; i.e., once decisions based on your measures have been implemented, how would you verify whether the measures were indeed an accurate representation of society's preferences?

Pick two reasonably different externalities; for instance, "smoke from my neighbor's BBQ" and "music from my neighbor's parties" would be too similar. In your discussion (maximum two pages), consider whether the externality is private or public, and positive or negative. Refer to the "ecosystem valuation" Web site (listed under "readings") or other sources and explain what valuation approach you used, and why.

Part 2

Consider the industry and company you are focusing on and identify two environmental externalities that are relevant there. Describe the externalities and find out how they are or could be valued. For instance, if you picked financial services and Wells Fargo, you might pick as the externalities the additional traffic caused by opening a branch and the greenhouse gas emissions associated with employee commuting. No need to arrive at precise estimates, but, using the same approach as for Part 1, come up with a number for the cost of each externality and justify it, on a half-page per externality, one page total.

Submit a concise well-reasoned three page discussion of your answers by e-mail ***in one single e-mail document*** before the beginning of class.

Readings on Externalities

- "Ecosystem Valuation," available at http://www.ecosystemvaluation.org/. Work through this site, and look especially at the "big picture," the "essentials of ecosystem valuation" and the various methods under "dollar-based ecosystem valuation methods." (You will have to refer back to these for today's individual assignment.)

Optional Background Readings on Externalities

- "Environmental Economics: A Survey." Cropper and Oates. *Journal of Economic Literature*. 30(2): 675-740. 1992.
  Available online: http://www.jstor.org/stable/2727701

Readings on Strategy

- "Market Failure and the Environmental Policies of Firms: Economic Rationales for 'Beyond Compliance' Behavior." Reinhardt. *Journal of Industrial Ecology*. 3(1): 9-21. 1999.
  Available online: http://dx.doi.org/10.1162/108819899569368

SESSION 4

Environmental Marketing

Session Outline

- Guest Speaker: Eugene Tseng
- Case Discussion: Hayward Lumber
- Discussion of today's assignment
- Mini-briefing

Guest Speaker: Eugene Tseng, JD, Board Member, Green Seal

Case: Environmental Product Differentiation by the Hayward Lumber Company (Stanford, OIT 38, 2004) (available on course Web site)
The case traces the greening of Hayward Lumber Company, a family-owned company based in California. As an initial step toward serving an environmentally focused market niche, the firm began selling Forest Stewardship Council (FSC) certified lumber to meet a growing demand for green building materials in California's central coast market. The company found that while supplying FSC wood afforded entry into the green builder market, horizontal expansion into higher margin green building materials created a greater opportunity for revenue enhancement. The case details competing certification standards, and the components of Hayward's environmental strategy. The case closes with descriptions of several propositions for strategic growth of the firm to reach stated environmental and sales goals.

Case Questions

1. How does the supply chain for FSC certified lumber differ from the supply chain for non-certified lumber?
2. Estimate the full cost to HLC for sourcing and stocking FSC lumber. How does this compare to the full cost for non-certified lumber?
3. Why is HLC better able to manage inventory of FSC certified lumber than a green builder? (See the attached exercise 'Managing Inventory of FSC Certified Lumber.')
4. How should Hayward Lumber Company (HLC) adapt its operations and supply chain management practices to handle FSC?
5. Does the FSC eco-label competitively differentiate HLC in the builder supply market?
6. What are the advantages and disadvantages of horizontal diversification to expand the portfolio of green products offered by HLC beyond FSC?
7. What are the options for vertical expansion for HLC? What subset of these options should HSC pursue, and why? Please support your recommendation with numbers from the case.

Readings

- "Environmental Product Differentiation: Implications for Corporate Strategy." Reinhardt. *California Management Review*. 40(4): 43-73. Summer 1998.
  Available online: http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=1081785&site=ehost-live
- "Shades of Green: A Multidimensional Analysis of Environmental Advertising." Banerjee, et al. *Journal of Advertising*. 24(2): 21-31. 1995.
  Available online: http://www.jstor.org/stable/4188969
  The 24(2) issue is entirely focused on green advertising; look at some of the other papers too.

Strictly Optional Background Readings

- "Consumer Responses to Corporate Environmental Advertising." Davis. *Journal of Consumer Marketing*. 11(2): 25-37. 1994.
- "Targeting Consumers Who Are Willing to Pay More for Environmentally Friendly Products." Laroche, Bergeron and Barbara-Ferleo. *Journal of Consumer Marketing*. 18(6): 503-520. 2001.
- "Choosing the Right Green Marketing Strategy." Ginsberg and Bloom. *Sloan Management Review*. 46(1): 79-84. 2004.
  Available online: http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=14829807&site=ehost-live

Web Research

Check out a few "green marketing" Internet sites, including:

- http://www.greenerchoices.org/eco-labels/eco-home.cfm
- http://www.sustainablemarketing.com/
- http://www.greenmarket.com/

For a critical perspective, look at the following report, listing what the authors claim are America's ten worst greenwashers (in 2005), or look for more recent examples of greenwashing:

- http://www.thegreenlifeonline.org/dontbefooled.html

Discussion Questions

1. Who do you think the "green consumers" are? Where are they? Where do you believe the most opportunities exist for green marketing (product types, consumer types, geographic areas, etc)? What should the message be?
2. Pick two eco-labels (other than FSC and SFI, the ones discussed in the Hayward Lumber case) and find out as much as you can about them. Who administers the eco-label? Who decides which firms can carry the eco-label? How much do firms have to pay for the label? How much benefit do they get from the label? What criteria must they meet to carry the label?

Individual Assignment

- Find three "green" advertising campaigns and analyze them in terms of the readings from today's session and from any earlier marketing courses you have had. Pick a company in the industry you are focusing on, another company that is a relevant comparison, and a company that you think is particularly admirable in terms of their green advertising.
- Characterize the campaigns using the "Shades of Green" framework in today's readings.
- Be critical: do you think the campaigns are likely to be successful or not? What are the goals of the campaign? Why do you think the campaigns will or will not meet those goals? How do these particular campaigns fit with each company's' overall advertising strategy?
- Be specific: relate your analysis to the readings from today's session, but also from any other marketing courses you have had.

- Submit a three-page discussion of your answers by e-mail before the beginning of class. In your write-up, include the exact source of the advertisements (publication, date, etc.). If possible, provide electronic versions of the advertising materials. If you have hardcopies, please scan them. If they are online find a way to include them in your write-up, by saving the Web sites or writing to a PDF file or otherwise. If they are in the form of videos, provide a link to the exact Web address.

SESSION 5

Sustainability Reporting

Session Outline

- Mini-briefing
- Guest Speaker: Kathleen Shaver, sustainability reporting at Mattel
- Discussion of your findings from the assignment
- In-class assignment

Guest Speaker: Kathleen Shaver, Mattel, Director Corporate Responsibility

Readings on Mattel

- Read the Mattel Global Citizenship Report 2009 at http://corporate.mattel.com/about-us/2009GCReport.pdf
- Also look at the Mattel Annual Report 2008 at http://investor.shareholder.com/mattel/annuals.cfm

Readings on Sustainability Reporting

- "Sustainability Reporting Guidelines." Global Reporting Initiative. 2002. (Don't print: 104 pages!)
  Available online: http://www.globalreporting.org/ReportingFramework/G3Guidelines/

Optional Background Readings on Sustainability Reporting

- "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" (revised edition). WBSCD and WRI. (requires free registration)
  Available online: http://www.ghgprotocol.org/standards/corporate-standard
- "Corporate Governance and Climate Change: Making the Connection." Douglas G. Cogan. CERES. March 2006. (Don't print: 300 pages!)
  Available online: http://216.235.201.250/netcommunity/Document.Doc?id=90
- "Carbon Disclosure Project Report 2009: Global FT 500." Innovest and Carbon Disclosure Project.
  Available online: https://www.cdproject.net/CDPResults/CDP_2009_Global_500_Report_with_Industry_Snapshots.pdf

Individual Assignment

- You will study and compare three companies' sustainability reports: Mattel's, a company in the industry that your team has decided to study for this course and a company that you think is particularly admirable in terms of sustainability reporting. (Look for rankings of sustainability reports to find a highly-ranked company that you're interested in.)
- Find out how each company reports on their sustainability efforts (in the form of reports, Web sites or other).
- Provide a thoughtful comparison and critique of the three reports in light of the Global Reporting Initiative guidelines and in light of any other frameworks you can find for sustainability reporting. Do you find what the companies report insightful? Useful? Is it greenwash? Are the sustainability reports consistent with the financial statements?
- Limit your analysis to no more than three to four pages.

- Address your analysis to Kathleen Shaver, today's guest speaker; I will share the analyses with her.

SESSION 6

Sustainable Development and International Business

Session Outline

- Guest Speakers: Karolina Dekermenjian and Rob Six
- Case Discussion 1: FIJI Water
- Case Discussion 2: Freeport Indonesia
- Dealing with environmental issues in global business
- Mini-briefing

Guest Speakers

- **Karolina Dekermenjian, FIJI Water, Director, Sustainability and Home Delivery**
- **Rob Six, Roll International, VP Communications**

Case: FIJI Water And Corporate Social Responsibility — Green Makeover Or "Greenwashing"? (available from HBSP course website)

Advance readings:

- *Carbon Offsets: Growing Pains in a Growing Market*, Charles W. Schmidt, Environmental Health Perspectives Volume 117, Number 2, February 2009, available online at http://ehp.niehs.nih.gov/members/2009/117-2/EHP117pa62PDF.PDF

Websites to visit:

- http://www.fijigreen.com
- http://www.fijiwaterfoundation.org
- http://motherjones.com/politics/2009/09/fiji-spin-bottle

Discussion questions related to FIJI Water:

1. How would you evaluate FIJI Water's CSR strategy to date? What should be the main areas of focus for FIJI Water in terms of its CSR initiatives going forward? In other words, how should the company best allocate its resources across the numerous potential sustainability and social projects? How should it communicate these initiatives to customers/consumers effectively?
2. How should FIJI Water address the criticisms of some of the environmental groups and skeptical consumers?
3. How critical is FIJI Water's "carbon negative" commitment within its overall sustainability strategy? What does it communicate to the brand's customers/consumers and do you believe it is an important point of differentiation?
4. How would you evaluate FIJI Water's choice of its offset strategy? Understanding some of the complexities of evolving carbon offset markets, regulations and frameworks as well as inherent uncertainties associated with the various project types, how would you recommend FIJI Water proceed with future offset project selections? What should be the key evaluation criteria?

Case: Freeport Indonesia (available from HBSP course Web site)

In 1996, PT Freeport Indonesia, the mining subsidiary of Freeport McMoRan, had just completed an expansion of its copper and gold mine in the western half of New Guinea. The mine, which had dealt with numerous environmental and socio-cultural problems over the past couple of years, had recently

proposed concrete plans for dealing with problems of acid drainage and spoils deposition. Now, although under widespread criticism and attack, the company is undergoing environmental and social audits and is again contemplating a major expansion.

Case Questions

1. Describe and evaluate PTFI's environmental management strategy. Is the environment part of the parent company's general corporate strategy? (See http://www.fcx.com.) Has it always been?
2. Describe and evaluate PTFI's treatment of social and cultural affairs in Irian Jaya.
3. Would you describe this project as "sustainable"? What criteria would you use to evaluate this claim? Compare how economic rents are being distributed under PTFI's stewardship with your sustainability criteria.
4. Should the Indonesian government allow PTFI to expand?
5. How does PTFI compare to other firms engaged in similar operations (e.g., Rio Tinto, Newmont, BP Amoco, all in the same area or Shell, Chevron, and others in other areas)?
6. Should a bank that subscribes to The Equator Principles lend money to PTFI?
7. Are these issues relevant only for a large-scale operation such as this?

Readings

- "Beyond Greening: Strategies for a Sustainable World." Hart. *Harvard Business Review*. 75(1): 66-76. January-February 1997.
  Available from HBSP course Web site.
- Find out what "The Equator Principles" are; for an example of how HSBC implements them, see http://www.hsbc.com/1/2/equatorprinciples.

SESSION 7

Environmental Risk Assessment, and Green Supply Chains

Session Outline

- Guest Speaker: Fred Gilbert, Director, Supply Chain Design & Innovation, UTi
- Mini-briefing
- Environmental risk assessment and management; ISO 14001
- Green supply chains
- Carbon footprinting

Guest Speaker: Fred Gilbert, UTi, Director, Supply Chain Design & Innovation

Readings on Risk Management

- "Process Risk Evaluation: What Method to Use?" Montague. *Reliability Engineering and System Safety*. 29(1): 27-53. 1990.
  Available online: http://dx.doi.org/10.1016/0951-8320(90)90071-T
- *Understanding Risk Analysis*. Boroush.
  Available online: http://www.rff.org/rff/Publications/upload/14418_1.pdf

Readings on ISO 14001

- "ISO 14000: An Agnostic's Report from the Frontline." Corbett and Kirsch. *ISO 9000 + ISO 14000 News*. 9(2): 4-17. March-April 2000.
  Available online: http://www.anderson.ucla.edu/documents/areas/fac/dotm/bio/pdf_CC13.pdf

Strictly Optional Background Readings on ISO 14000 and Related Standards

- "Does ISO 9000 Certification Pay?" Corbett, et al. *ISO Management Systems*. 23-32. July-August 2002.
  Available online: http://personal.anderson.ucla.edu/charles.corbett/papers/does_iso_9000_pay.pdf
- "ISO 14001: Irrelevant or Invaluable?" Corbett and Russo. *ISO Management Systems*. 2001.
  Available online: http://www.anderson.ucla.edu/documents/areas/fac/dotm/bio/pdf_CC19.pdf

Strictly Optional Background Readings on Reverse Logistics/Closed-Loop Supply Chains

- "Supply Loops and their Constraints: The Industrial Ecology of Recycling and Reuse." Geyer and Jackson. *California Management Review*. 46(2): 55-73. Winter 2004.
  Available online: http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=12391592&site=ehost-live
- "Servicizing the Chemical Supply Chain." Reiskin, et al. *Journal of Industrial Ecology*. 3(2-3): 19-31. 2000.
  Available online: http://dx.doi.org/10.1162/108819899569520
- "Servicizing: The Quiet Transition to Extended Product Responsibility." White, Stoughton and Feng. 1999.
  Available online: http://www.resourcesaver.org/file/toolmanager/O16F7332.pdf
  (Or see the full report developed by the Tellus Institute (www.tellus.org) for the U.S. E.P.A.)
- "Design Engineering." Hendrickson, et al. *Closed-Loop Supply Chains*. Guide and Van Wassenhove (eds.).
- "Strategic Management of Product Recovery." Toffel. *California Management Review*. 46(2): 120-141. Winter 2004.
  Available online: http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=12391602&site=ehost-live
- "Poison PCs and Toxic TVs." Silicon Valley Toxics Coalition.
  Available online: http://svtc.svtc.org/site/DocServer/ppc-ttv1.pdf?docID=124

SESSION 8

Environmental Operations; Sustainability Consulting

Session Outline

- Guest Speaker: Chris Park
- Mini-briefing
- Green operations, green building

Guest Speaker: Chris Park, Deloitte Consulting LLP, Principal

Readings

- "Motion Picture Industry Sustainability." Corbett and Turco. 2006. UCLA Institute of the Environment report to CIWMB.
  Available online: http://personal.anderson.ucla.edu/charles.corbett/papers/mpis_report.pdf
- "Extending the Horizons: Environmental Aspects of Lean Operations." Corbett and Klassen. *Manufacturing & Services Operations Management*. 8(1): 5-22. 2006.
  Available online: http://www.anderson.ucla.edu/documents/areas/fac/dotm/bio/pdf_CC28.pdf
- "Total Quality Environmental Management: The Primer." GEMI.
  Available online: http://www.gemi.org/resources/TQE_101.pdf
- "Building Momentum: National Trends and Prospects for High-Performance Green Buildings." US Green Building Council.
  Available online: http://www.usgbc.org/docs/resources/043003_hpgb_whitepaper.pdf

- "The Costs and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force." Kats. October 2003. (do NOT print, this is 134 pages)
  Available online: http://www.usgbc.org/Docs/News/News477.pdf

Strictly Optional Background Readings

- "Lean Manufacturing and the Environment." US EPA report EPA100-R-03-005.
  Available online: http://www.epa.gov/innovation/lean/index.htm
- "Pursuing Perfection: Case Studies Examining Lean Manufacturing Strategies, Pollution Prevention, and Environmental Regulatory Management Implications." US EPA report. August 20, 2000.
  Available online: http://www.epa.gov/lean/perfection.pdf
- "Achieving Environmental and Productivity Improvements through Model-Based Process Redesign." Rajaram and Corbett. *Operations Research*. 50(5): 751-763. 2002.
  Available online: http://www.anderson.ucla.edu/documents/areas/fac/dotm/bio/pdf_CC21.pdf
- "Costing Green: A Comprehensive Cost Database and Budgeting Methodology." Matthiessen, Morris and Langdon. July 2004.
  Available online: http://www.usgbc.org/Docs/Resources/Cost_of_Green_Full.pdf#search='Costing%20Green:%20Davis%20Langdon

Discussion Assignment

- Make sure you are well on the way with your group project by now.
- Think about what "environmental operations" means for companies that are not in manufacturing (e.g., service companies, banks, etc.). Among others, this would refer to having green buildings; what is a "green building"?
- Look at some sustainability reports by non-manufacturing firms (e.g., HSBC, Bank of America, Citigroup, Barclays, ABN Amro, Goldman Sachs, Deloitte, etc.) and see what types of environmental changes they are making to their operations.

SESSION 9

Environmental Accounting and Finance

Session Outline

- Guest Speaker: Seth Jacobson, Palmer Capital
- Mini-briefing
- Discussion of J&J mini-case
- Carbon markets

Guest Speaker: Seth Jacobson, Palmer Capital, Vice-President

Johnson & Johnson Mini-Case

- "Incorporating the Cost of Carbon in Investment Decisions," presentation delivered by Johnson & Johnson at the Climate Leaders Partner Meeting, January 18-19, 2006
  Available at: www.epa.gov/stateply/documents/events/jan2006/canavan.pdf
- For other related presentations see http://www.naem.org/Dennis%20Canavan.pdf, or search for other presentations by Dennis Canavan from J&J or by others that you happen to come across.

Case Questions

1. What do you think of J&J's approach in deciding how much of their GHG emissions reduction goal to achieve through internal projects vs. by purchasing RECs?

Readings on Environmental Accounting

- *Finding Cost-Effective Pollution Prevention Initiatives: Incorporating Environmental Costs into Business Decision Making*. Global Environmental Management Initiative (GEMI). 1994.
  Available online: http://www.gemi.org/resources/COS_107.pdf
- "Using a Balanced Scorecard to Implement Sustainability." Epstein and Wisner. *Environmental Quality Management*. 11(2): 1-10. Winter 2001.
  Available online: http://www3.interscience.wiley.com/cgi-bin/fulltext/89011826/PDFSTART

Readings on the Financial Impact of Environmental Management

- "The Eco-Efficiency Premium Puzzle." J. Derwall, et al. *Financial Analysts Journal*. 61(2): 51-63. March-April 2005.
  Available online: http://www.jstor.org/stable/4480656

Readings on the Carbon Market

- "State and Trends of the Carbon Market 2007." The World Bank.
  Available online: http://wbcarbonfinance.org/docs/Carbon_Trends_2007-_FINAL_-_May_2.pdf
- "Towards a Common Carbon Currency." Available on course Web site courtesy of PointCarbon.
- For an analysis of existing carbon offset programs, see the report "Voluntary Offsets For Air-Travel Carbon Emissions Evaluations and Recommendations of Voluntary Offset Companies", at http://www.tufts.edu/tie/carbonoffsets/TCI-offset-handout.htm, click on "Full TCI Report on Voluntary Offsets"

Strictly Optional Background Readings on Environmental Accounting

- "Improving Environmental Management with Full Environmental Cost Accounting." Epstein. *Environmental Quality Management*. 6(1): 11-22. Autumn 1996.
  Available online: http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=16854925&site=ehost-live
- More reports on environmental cost accounting available at:
  http://www.epa.gov/oppt/library/pubs/archive/acct-archive/resources.htm

Strictly Optional Background Readings on Environmental Finance

- Two reports on socially responsible investing from the perspective of investors:
  1. "Socially Responsible Investment Survey 2002."
     Available online: http://www.deloitte.com/dtt/cda/doc/content/sri(2).pdf
  2. "Investing in Responsible Business."
     Available online: http://www.deloitte.com/dtt/cda/doc/content/dtt_gfsi_CSRweb2_110603.pdf
- "Does the Market Value Environmental Performance?" Konar and Cohen. *Review of Economics and Statistics*. 83(2): 281-289. 2001.
  Available online: http://www.jstor.org/stable/3211606
- "Competitive Advantage on a Warming Planet." Lash and Wellington. *Harvard Business Review*. 85(3): 94-102. March 2007.
  Available online: http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=23926966&site=ehost-live
- "State and Trends of the Carbon Market 2007." International Emissions Trading Association.
  Available online: http://www.ieta.org/ieta/www/pages/download.php?docID=2281
- "Carbon ABCs." Available on course Web site courtesy of PointCarbon.
- "Business Opportunities in the Carbon Market." Available on course Web site courtesy of PointCarbon.
- "Cap-and-Trade: To the Point." Point Carbon Congressional Briefing. March 30th, 2009. Available on course Web site courtesy of PointCarbon.

Sample Web Sites to Visit

- http://www.sustainability-index.com/
- http://www.lightgreen.com/eco_performance.htm
- http://www.toyota.com/about/environment-2007/

SESSION 10

Final Presentations

Each team will present its final report; see earlier in the syllabus for more details on the structure of the final report. Keep in mind that the reports and presentations will be shared with the other participants in the class. In preparing your presentation, you should assume that all material that we've discussed in the class is known to the participants (no need to repeat), so you should focus entirely on what you've found beyond what we've already discussed in class.

Assuming 6 to 8 teams, we have approximately 15 to 25 minutes per team, including Q&A.

At the end of the session, I will ask all students to (anonymously) grade each team's presentation, and will take that information into account when grading each team's report.

CHARLES J. CORBETT

Charles Corbett, Ph.D., is professor of Operations Management and Environmental Management at the UCLA Anderson School of Management, where he currently also serves as Chairman and Deputy Dean of Academic Affairs. He received the Citibank Teaching Award in 2008, the Executive MBA Class of 2006 Outstanding Teaching Award and the 2002 Robbins Assistant Professor teaching award, in addition to the UCLA Staff Assembly's 2007 Faculty/Staff Partnership Award. He was an AT&T Faculty Fellow in Industrial Ecology, served as Associate Dean of the MBA program from 2003-2006, and was the area chair of the Decisions, Operations and Technology Management area during 2007-2009. He was named Joseph J. Jacobs Term Chair in Entrepreneurial Studies for the period July 2008-2011.

His areas of teaching include operations of entrepreneurs and small business, environmental issues in management, operations management, and supply chain management. He regularly teaches sessions on these topics in various programs at UCLA, including the Management Development for Entrepreneurs program, the Johnson & Johnson Health Care Executive program, and in international management seminars for visiting executive MBA students. In addition to UCLA, he has taught short courses at the École des Mines de Nantes and at ESC Reims in France and at Pontificia Universidad Católica de Chile, and has been invited to present over 100 seminars and lectures at institutions and conferences worldwide. Dr. Corbett was a member of the Expert Panel of the Fudan Premium Fund of Management in China in August 2006. He has given (semi-)plenary and keynote lectures at conferences in Bali, Istanbul, Lima, Mexico City, Paris, Sao Paulo, Salvador (Brazil), Shanghai, and Tainan (Taiwan).

His current research focuses on environmental issues in business and operations management in entrepreneurial firms. He has published in academic and business journals in several countries, including *Sloan Management Review*, *California Management Review*, *Operations Research*, *Management Science*, *European Journal of Operational Research*, the *Journal of the Operational Research Society*, *Production and Operations Management*, *Environmental and Resource Economics*, and others. Dr. Corbett has been guest editor of three special issues of *Production and Operations Management* on Environmental Management & Operations and has frequently acted as associate editor and referee for journals as *Management Science*, *Manufacturing & Service Operations Management, Operations Research*, *Production and Operations Management*, *Interfaces*, *European Journal of Operational Research*, *IIE Transactions* and *ORSA Journal on Computing*. His 2006 study on sustainability in the motion picture industry was featured in media outlets worldwide, including CNN, the Los Angeles Times, the New York Times, The Guardian, La Opinion, and various radio and TV stations.

Before joining the Anderson School, Dr. Corbett was a Visiting Scholar at the Owen Graduate School of Management at Vanderbilt University.

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