

BMA 5123 - Managing Business for Environmental Sustainability¹
Special Term I, 2014

Module Syllabus - Draft

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Class Meetings: TTH 6:00-9:30 (We will take a 20 minute break during each class)

Class Location: BIZ1 3-7

Please note: Because we hope to schedule several guest speakers, the schedule of classes may change and topics/assignments may have to be reorganized. Please treat this as a draft version of the module syllabus, subject to adjustments.

Introduction

For the sake of their market reputations, public relations, regulatory management, access to capital, and long term resilience, firms must recognize the many ways in which they affect the environment and natural resources over the long term, and the ways that the environment and natural resources, in turn, affect the firms' long term sustainability. This course will take you through a series of topics to help you examine how firms, and the markets on which they depend, are affected by commodity prices, government environmental and resource policies, and consumer attitudes to the environment. You will review a number of analytical issues related to sustainability mapping, life cycle analysis, carbon finance, risk management, political risk analysis, renewable energy investment, ISO compliance, and sustainability metrics to provide practical skills and insights. The course will then turn to strategic issues of managing sustainability including corporate governance and organization, investor and employee relations, public engagement and sustainability reporting, product design, and supply chain management.

Throughout the course the emphasis will be on the use of data to help firms understand not only their own operations, but the larger environment (physical, political, and market) in which they work. The course will compare various views of sustainability from global, national, municipal, business and consumer levels, and from profit, risk management, and ethical perspectives.

The course will combine faculty lectures and guest talks with cases study analysis and financial problem sets. There will be a heavy reading component to the course, comprised of academic and trade articles, one or two textbooks and some web-based materials.

¹ This syllabus is subject to updates and adjustments to meet the needs of the class. Please regularly check back to the IVLE for revised versions of the syllabus.

The course evaluations will be based on quizzes, case study write-ups, individual/group projects, and class participation.

Course Objectives

This course is designed to provide you with an introduction to the many aspects of corporate sustainability management. During this course you will:

- Become familiar with the concepts and vocabulary in the field;
- Be introduced to the tools, institutions, and organizations associated with business sustainability;
- Undertake readings to support your exploration of sustainability;
- Work through four detailed case studies in the field of business sustainability;
- Apply the concepts and tools of sustainability to research projects; and
- Explore the barriers to achieving sustainability and develop approaches for success.

Course Materials

The course will include required readings, optional readings, and case studies.

Required textbook:

Blackburn, William. 2007. *The Sustainability Handbook: The Complete Management Guide to Achieving Social, Economic and Environmental Responsibility*. (In hardcover from Earthscan or in paperback from the Environmental Law Institute.)

Note: The Coop is in the process of ordering this book. I suspect, however, you might do well to order it through Amazon.

Course Evaluations

Grades for the course will be based upon the following assignments and contributions:

Case study write-ups:	20%
Quizzes:	30%
Individual/group projects:	30%
Class participation:	20%

Case study write-ups: There will be four case studies throughout the course. Each student will be assigned responsibility for submitting analysis of two of the four cases. Everyone will do the analysis of the Golden Agri Resources case study. You will also be assigned one of the other three cases.

Your write-ups will be in the form of a succinct memo (1200 word maximum) with the option of attaching supporting tables and graphs in appendices. The case study memos will be evaluated on the basis of quality of analysis, clarity of explanation, and insight into the case.

Quizzes: There will be three in-class quizzes of no more than 30 minutes. The quizzes will be cumulative, requiring you to integrate all material covered to that point. The quiz might take any form, including essay, multiple choice, short answer, or other formats as appropriate.

Individual/group projects: There will be one individual/group project, with presentations during the final week of class meetings. Your grade will be based on a combination of evaluations on the project paper, the presentation, and possibly peer evaluations.

The goal for the course is to provide a basic foundation in corporate sustainability and to allow each student to pursue in more depth topics of personal interest. To allow you to explore your chosen areas, you will be invited to propose research paper topics. We can then explore whether those topics are appropriate and manageable within the subject matter and time constraints of the module.

You will also have the opportunity to work in teams if you choose. I will assume everyone is working individually unless you propose a collaboration with other students. All collaborations must be voluntary – i.e., make sure you have agreement from your proposed partner before submitting a proposal. Projects involving collaborations will, of course, be held to a higher standard than those submitted by individuals. We will take some time during the first class meeting to discuss ideas for topics.

This is a challenging project for a Special Term module. To make sure that you make steady progress, we will set the following milestones.

- 20 May, submit proposed topic/title – supported by a brief description/abstract
- 24 May, final topics approved
- 27 May, submit a proposed thesis statement, abstract and list of five references from the academic literature
- 31 May, submit outline of paper
- 21 May, final paper due

Your papers should be in the range of 4,000-6,000 words, excluding tables and figures, though I am more interested in careful analysis and clear, succinct writing than I am in staying within a particular maximum or minimum length.

Class participation: All students are expected to attend all class meetings prepared to discuss the assignments and readings. You will be evaluated on your attendance, contributions to the class discussion, and insight.

Schedule of Meetings

1. 13 May 2013

Defining and Understanding Sustainability

Assumptions behind market economies
Defining social sustainability
Defining business sustainability
The business case for sustainability
The citizenship case for sustainability
Sustainability and corporate social responsibility (CSR)
Stakeholders in business sustainability

Required materials:

- Blackburn, Chapters 1-3.
- Friedman, M. 1970. "The Social Responsibility of Business is to Increase Profits." *The New York Times Magazine*. September 13, 1970.
- van Marrewijk, M. and M. Werre. 2002. "Multiple Levels of Corporate Sustainability." *Journal of Business Ethics* 44(2/3) 107-119.

Additional reading materials:

- Porter, M. and M. Kramer. 2011. "Creating Shared Value." *Harvard Business Review*.

2. 15 May 2013

Science of environmental sustainability

Dimensions of Sustainability

Required materials:

- Blackburn Appendix 1 (1.5, 1.8, 1.12-1.25)
- U.N. Economic and Social Council, Commission on Population and Development. 2009. *World Demographic Trends: Report of the Secretary-General*. 1-22. New York: United Nations E/CN.9/2009/6.
- IBM. 2009. "Water: A Global Innovation Outlook Report."
- DeFries, Ruth, Gregory P. Asner and Jonathan Foley. 2006. A glimpse out the window: What landscapes reveal about livelihoods, land use, and environmental consequences. *Environment* 48 (8): 22-36.
- Dasgupta, Partha (Lead Author); S. Niggol Seo (Topic Editor). 2008. Natural capital and economic growth. In *Encyclopedia of Earth*, ed. Cutler J. Cleveland. Washington, D.C.: Environmental Information Coalition, and National Council for Science and the Environment.
http://www.eoearth.org/article/Natural_capital_and_economic_growth

Additional reading materials:

- Gleick, Peter. H. 2003. Water use. *Annual Review of Environment and Resources* 28 (1): 275-314.
- Molina, Mario J., and Luisa T. Molina. 2004. Megacities and atmospheric pollution. *Journal of the Air and Waste Management Association* 54 (6): 644-680.
- Lotze, Heike K., Hunter S. Lenihan, Bruce J. Bourque, Roger H. Bradbury, Richard G. Cooke, Matthew C. Kay, Susan M. Kidwell, Michael X. Kirby, Charles H. Peterson, and Jeremy B. C. Jackson. 2006. Depletion, degradation, and recovery potential of estuaries and coastal seas. *Science* 312 (5781): 1806-1809.
- Raudespp-Hearne, Ciara, Garry Peterson, Maria Tengo, Elena Bennett, Tim Holland, Karina Benessaiah, Graham MacDonald, and Laura Pfeifer. 2010. Untangling the environmentalist's paradox: Why is human well-being increasing as ecosystem services degrade? *Bioscience* 60 (8): 576-589.

3. 20 May 2013

Focus on Energy

The global carbon cycle

Basic energy physics

Energy audits and balance sheets

Investments in energy efficiency

Investments in renewable energy

Case Study #1 (No write up assigned. Come to class ready to discuss the case.)

Required materials:

- Intergovernmental Panel on Climate Change. 2007. "Summary for policymakers." In *Climate Change 2007: Synthesis Report*. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. Geneva: IPCC.
http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf
- Bill Gates. 2010. "Energy: Innovating to Zero!" TED Talk Video:
http://www.ted.com/talks/bill_gates.html
- GreenBiz.com. 2005. "Energy Management and Shareholder Value."
<http://www.greenbiz.com/sites/default/files/document/Energy+ShareholderValue.pdf>
- U.S. EPA. "Climate Change." at <http://www.epa.gov/climatechange/> (particularly see "Why is the climate changing?" and "What can we do about it?")
- Lovins, A. "Reinventing Fire." You Tube Video:
<http://www.youtube.com/watch?v=8H2jnmJ6ZEw>

Additional reading materials:

- REN21. 2012. “Renewables 2012: Global Status Report. (Paris: REN21 Secretariat). http://www.map.ren21.net/GSR/GSR2012_low.pdf
 - BSR. 2012. “The Sustainability Impacts of Fuel: Understanding the Total Sustainability Impacts of Commercial Transportation Fuels.” The Future of Fuels Working Group. https://www.bsr.org/reports/BSR_Future_of_Fuels_Sustainability_Impacts_of_Fuel.pdf
 - Mani, M. 2012 “Assessing the Investment Climate for Climate Investments: A Comparative Framework for Clean Energy Investments in South Asia in a Global Context.” The World Bank, South Asia Region, Policy Research Working Paper 6211.
 - Gross, R. et al. 2012. “On Picking Winners: The Need for Targeted Support for Renewable Energy.” Centre for energy Policy and Technology, Imperial College London. ICEPT/WP/2012/013. http://assets.wwf.org.uk/downloads/on_picking_winners_oct_2012.pdf
 - Hughes, J.D. 2011. “Will Natural Gas Fuel America in the 21st Century?” Post Carbon Institute. <http://www.postcarbon.org/report/331901-will-natural-gas-fuel-america-in>
4. 22 May 2013

Operationalizing Sustainability

Quiz#1

Case Study #1 – Nike: Moving Down the Sustainability Track through Chemical Substitution and Waste Reduction; UV0814-PDF-ENG Link: <http://cb.hbsp.harvard.edu/cb/pl/19439792/19439794/ed6e4794154c61868b00c96eae28424d>

Required materials:

- Blackburn, Chapters 4 and 6 and Appendix 4
- Verdantix and WWF. 2012. “Green Game-changers: Insights for Mainstreaming Business Innovation.” WWF Report UK. http://assets.wwf.org.uk/downloads/1121_1_wwf_greengamechange_aw_web_2_.pdf
- Caldelli, A. and M.L. Pamigiani. 2004. “Management Information System - A Tool for Corporate Sustainability.” *Journal of Business Ethics* 55(2) 159-171.
- Scientific Applications International Corporation. 2006. “Life Cycle Assessment: Principles and Practice.” US Environmental Protection Agency EPA/600/R-06/060. (Skim only.) <http://www.cs.ucsb.edu/~chong/290N-W10/EPAonLCA2006.pdf>

- Lawrence et al. 2006. “Sustainability Practice of SMEs: The Case of NZ.” *Business Strategy and the Environment* 15: 242-257.
- Kiron et al. 2013. “The Innovation Bottom Line.” MIT Sloan Management Review Research Report.
- Network for Business Sustainability. 2010. “Measuring and Valuing Environmental Impacts.” Report prepared by NBS.

Additional reading materials:

- Club de Excelencia en Sostenibilidad. “Best Practices Catalogue in Energy Efficiency.”
http://www.endesa.com/EN/SALADEPRENSA/CENTRODOCUMENTAL/Publicaciones/bpeticenergetica_eng.pdf
- WBCSD Ecosystems. 2012. “Biodiversity and Ecosystem Services – Scaling up Business Solutions: Company Case Studies that Help Achieve Global Biodiversity Targets.”
<http://www.wbcd.org/Pages/EDocument/EDocumentDetails.aspx?ID=14924&NoSearchContextKey=true>
- WBSCD Water. 2012 V3. “Water for Business: Initiatives Guiding Sustainable Water Management in the Private Sector.”
<http://www.wbcd.org/waterforbusiness3.aspx> or
<http://www.sustainability.com/library/water-for-business-version-3#.UYtUpJUYK04>
- World Green Building Council. 2013. “The Business Case for Green Building.”
- Birnik, A. 2013. Developing A Climate Change Strategy: A Framework for Managers.” Forthcoming in *Thunderbird International Business Review*. (Available from professor on request.)
- [Groundbreaking Park Royal Tower is Draped with Curtains of Greenery in Singapore](#)
- McDonough, W. and M. Braungart. 1998. “The NEXT Industrial Revolution.” *The Atlantic*.
- Price Waterhouse Cooper 2012. “Risk Ready: New Approaches to Environmental and Social Change.” PwC 10 Minute Series.
http://www.pwc.com/en_US/us/10minutes/assets/pwc-10minutes-environmental-social-risk.pdf
- Werbach, A. 2009. “Setting Your North Star and Initiating the TEN Cycle.” Excerpted from *Strategy for Sustainability: A Business Manifesto*. Harvard Business Press.
- Eccles R. and G. Serafeim. 2013. “Innovating for a Sustainable Strategy.” *Harvard Business Review* May 2013: 50-60.

5. 27 May 2013

Engineering and cost analysis

Analysis of investments in sustainability

Organizational change

Required materials:

- Blackburn, Chapter 8 and Appendix 5
- US Green Building Council. “Making the Business Case for High Performing Green Buildings.”
- Grayson, D. and Kakabadse. 2012. “Towards a Sustainability Mindset: How Boards Organise Oversight and Governance of Corporate Responsibility.” Report for Business in the Community. London.

Additional reading materials:

- Caprar, D. and B. Neville. 2012. ““Norming” and “Conforming”: Integrating Cultural and Institutional Explanations for Sustainability Adoption in Business.” *Journal of Business Ethics*. 110: 231-245.
 - Grayson, D. 2011. “Embedding Corporate Responsibility and Sustainability Marks and Spencer” *Journal of Management Development* 30(10): 1017-1026.
 - UNEP Finance Initiative and Global Compact LEAD. 2012. “Integrating ESG Issues into Executive Pay.”
 - Posner, B. 2009. “One CEO’s Trip from Dismissive to Convinced.” *MIT Sloan Management Review* 51(1): 47-51.
 - Quinn, L. and J. Norton. 2004. “Beyond the Bottom Line: Practicing Leadership for Sustainability” *LIA* 24(1): 3-7.
 -
6. 29 May 2013

Evaluating Business Sustainability

Metrics of sustainability

Frameworks for sustainability evaluation

ESG factors and balanced scorecards

Case Study #2 - Scandinavian Airlines: The Green Engine Decision;

909M28-PDF-ENG Link:

<http://cb.hbsp.harvard.edu/cb/pl/19439792/19439796/ddfded07c227ab894f696f22d41720ae>

Required materials:

- Blackburn, Chapter 7 and Appendix 8
- Szekely, F. and M. Knirsch. 2005. “Responsible Leadership and Corporate Social Responsibility: Metrics for Sustainable Performance.” *European Management Journal* 23(6): 628-647.
- Reinhardt, F. 2000. “Sustainability and the Firm.” *Interfaces* 30(3): 26-41

- Figge, F. et al. 2002. “The Sustainability Balanced Scorecard – Linking Sustainability Management to Business Strategy.” *Business Strategy and the Environment* 11: 269-284.

Additional reading materials:

- PwC. 2012. “Sustainability Valuation: An Oxymoron?”
- Hahn, T. et al. 2010. “Trade-Offs in Corporate Sustainability: You Can’t Have Your Cake and Eat It.” *Business Strategy and the Environment*. 19: 217-229.

7. 3 June 2013

Supply and Demand Chain Management

Quiz #2

Required materials:

- Brammer, S. et al. “Managing Sustainable Global Supply Chains.” Report for the Network for Business Sustainability.
- Webb, T. 2012. “Supply Chains: Linking it Together.” *Ethical Corporation* November 2012: 50.
- Business and Society Belgium. 2012. “Sustainable Purchasing & Supply Chain Management: A Practical Guide.”
- Seuring, S. and M. Muller. 2008. “From a Literature Review to a Conceptual Framework for Sustainable Supply Chain Management.” *Journal of Cleaner Production* 16: 1699-1710.

Additional reading materials:

- Deutsche Post DHL “Delivering Tomorrow: Towards Sustainable Logistics.” Deutsche Post AG, Bonn.
- PricewaterhouseCoopers. 2009. “Green Products: Using Sustainability Attributes to Drive Growth and Value: Sustainable Business Solutions.”
- PricewaterhouseCoopers. 2012. “Resilience: Sustaining the Supply Chain.”
- Packard, B. and P. Senge. [“Recycling the Cup: Systems Thinking at Starbucks”](#) Video at Sustainable Brands.
- Mathers, J. 2012. “Smart Moves: Creative Supply Chain Strategies are Cutting Transport Costs and Emissions.” Report for Environmental Defense Fund.
- de Zoysa, U. 2007. “Sustainable Consumption: An Asian Review.” Report for Centre for Environment and Development.

8. 5 June 2013

Standards and certifications for business sustainability

ISO Standards 26000, 14001, and 50001

ISO 9001 and 2050

Roundtable on Sustainable Palm Oil Certification

Individual industry standards

Certification processes

Tracking sustainability

Case Study #3: Ricoh Company Ltd.

Link:

<http://cb.hbsp.harvard.edu/cb/pl/19439792/19439821/852fccc76542054689c8101574ae4654>

Required materials:

- Blackburn, Chapter 5 and Appendices 2 and 3
- Steering Committee of the State-of-Knowledge Assessment of Standards and Certification. 2012. “Toward Sustainability: The Roles and Limitations of Certification.” Washington, DC: RESOLVE, Inc. (pp. 1-100, Appendices are optional).

Additional reading materials:

- World Business Council for Sustainable Development and IUCN. “Markets for Ecosystems Services – New Challenges and Opportunities for Business and the Environment.”
- Textile Exchange. 2012. “Content Claim Standard 2012, Version 1.0.”

9. 10 June 2013

Interpreting sustainability indices

Performance frameworks

Benchmarking within industries

Required materials:

- Blackburn, Chapter 9
- Singh, R. et al. 2009. “An Overview of Sustainability Assessment Methodologies. *Ecological Indicators* 9: 189-212.
- Knoepfel, I. 2001. “Dow Jones Sustainability Group Index: A Global Benchmark for Corporate Sustainability.” *Corporate Environmental Strategy*. 8: 6-15.

Additional reading materials:

- EVCA. 2013. “Long –Term Investing: The Route to Sustained Growth.”

- Research Network for Business Sustainability. 2008. “Valuing Business Sustainability: A Systematic Review.”
- Figge, F. et al. 2002. “The Sustainability Balanced Scorecard – Linking Sustainability Management to Business Strategy.” *Business Strategy and the Environment* 11: 269-284.
- http://www.cnbc.com/id/33535106/Sustainability_Indices_Sprouting_Up
- <http://www.global100.org/>

10. 12 June 2013

Communication and Reporting

Transparency and accountability
 Annual and sustainability reporting
 Global Reporting Initiative
 Carbon Disclosure Project
 Awards
 Media

Case Study #4: Ricoh Company, Ltd.; Golden Agri and Greenpeace: The Struggle for Sustainable Palm Oil

Required materials:

- Blackburn, Chapters 10 and 11
- Moneva et al. 2006. “GRI and the Camouflaging of Corporate Unsustainability.” *Accounting Forum* 30: 121-137.
- The Prince’s Accounting for Sustainability Project. “Practical Insights: A Summary of Case Studies in Embedding and Reporting Sustainability.”
- Global Reporting Initiative, v3.1. 2006. “Sustainability Reporting Guidelines.” (Read RG section [pages 1-49]; skim AL, IP, and TP sections.)
- Singapore Stock Exchange. “Guide to Sustainability Reporting for Listed Companies.”

Additional reading materials:

- Aras, G and D. Crowther. 2008. “Corporate Sustainability Reporting: A Study in Disingenuity?” *Journal of Business Ethics* 87: 279-288.
- Futerra Sustainability Communications. “The Greenwash Guide.”
- Morhardt, J. E. 2010. “Corporate Social Responsibility and Reporting on the Internet.” *Business Strategy and the Environment*. 19: 436-452.
- Clark, L. and D. Master. 2012. “Corporate ESG/Sustainability/Responsibility Reporting – Does it Matter?” Governance and Accountability Institute, Inc. New York, NY.

- KPMG. 2012. “Water Scarcity: A Dive into Global Reporting Trends.” *KPMG Sustainable Insight*.
- Marquis, C. and M. Toeffel. 2012. “When do Firms Greenwash? Corporate Visibility, Civil Society Scrutiny, and Environmental Disclosure.” *Harvard Business School Work Paper* 11-115.

11. 17 June 2013

Group presentations/discussion

12. 19 June 2013

Group presentations/discussion

Quiz #3