

Sustainability Management

K4100 Section 001, Fall 2013

Time: Wednesdays 6:10-8:00 PM

Professor Steven Cohen

Tel: 212-854-4445 **e-mail:** sc32@columbia.edu

Curriculum and Grading Assistants:

Janelle Sommerville: Lead Curriculum Assistant

e-mail: jsommerville@ei.columbia.edu

Anahita Arora:

e-mail: aa3311@columbia.edu

Sarah Volkman:

e-mail: sv2372@columbia.edu

Course Objectives:

Sustainability management matters because we only have one planet, and we must learn how to manage our organizations in a way that ensures that our planet is maintained. The course is designed to introduce you to the field of sustainability management. This is not an academic course that reviews the literature of the field and discusses how scholars think about the management of organizations that are environmentally sound. It is a practical course organized around the core concepts of management and the core concepts of sustainability.

Each week we will read one or two cases in management and/or sustainability, and some background material designed to help you answer the questions posed at the end of each case exercise. The cases always pose practical issues for decision makers to address—but issues that are best addressed with a firm grounding in the literature of management and sustainability.

The literature and case material we will study this semester are based on lessons learned in government, non-profits and the private sector. However, most of my own work focuses on government and non-profits and so this course will emphasize management in public and nonprofit organizations and the role of public policy in sustainability.

In the class you will sign up for one team that will present a briefing in video format on an assigned position for a particular case for which another team will present an opposing view. You will also write four two-page memos according to a specified format. The syllabus includes a schedule for each assignment. There is also a take home final exam.

Week 1 (September 3): Introduction to Management and Public Management, and Sustainability Management ****NOTE THIS WEEK'S CLASS WILL BE HELD ON TUESDAY, SEPTEMBER 3rd FROM 8-10pm**

Week 2 (September 11): Internal Organizational Management: People, Work, and Money

Week 3 (September 18): Performance and External Organizational Management: Strategy, Communication, and Information

Week 4 (September 25): Environmental Policy and the Promotion of Sustainability Management

Week 5 (October 2): Sustainable Manufacturing and Service Businesses

Week 6 (October 8): The Centrality of Energy ****NOTE THIS WEEK'S CLASS WILL BE HELD ON TUESDAY, OCTOBER 8TH FROM 8-10pm**

Week 7 (October 16): Sustainable Water

Week 8 (October 23): Sustainable Food Supply

Week 9 (October 30): Sustainable Cities

Week 10 (November 6): Sustainability Metrics

Week 11 (November 13): Management Innovation and Quality Management

Week 12 (November 20): Outsourcing and Network Management

Week 13 (December 4): A Sustainable Planet and Conclusions

Required Readings:

1. Steven Cohen, William Eimicke and Tanya Heikkila, *The Effective Public Manager* (5th edition)
2. Steven Cohen, *Understanding Environmental Policy* (2nd edition draft manuscript)
3. Steven Cohen, *Sustainability Management*
4. "Use sustainability metrics to guide decision-making" By Schwarz, Jeanette Publication: *Chemical Engineering Progress*. Date: Monday, July 1 2002
5. Case Studies, CourseWorks and Harvard Business School website

Cases and materials written are available in the following locations:

CourseWorks:

- "The Problem of Tom"
- "Maintaining New York City's Parks in the Face of Budget Cuts"
- "Hydrofracking in New York State"
- "Nuclear Power and the Japanese Earthquake of 2011"
- "The Keystone XL Pipeline"
- "Mexico City: Opportunities and Challenges for Sustainable Management of Urban Water Resources"
- "Bike Lanes in New York City"
- "PlaNYC: 2030: Sustainability in NYC"
- "When Contracting Really Doesn't Work: Atlanta's Water Contract"
- "The Irrelevance of Global Climate Talks"

Understanding Environmental Policy:

- Chapter 3: Why Can't NYC Get a Congestion Charge?

Harvard Business School cases must be purchased online at:

<http://cb.hbsp.harvard.edu/cb/access/14850986>

- “Wal-Mart’s Sustainability Strategy”: Prod. #: OIT71
- “Driving Sustainability at Bloomberg”: Prod #: 411025
- “Groom Energy Solutions: Selling Efficiency: Prod #: 613054
- “Sustainable Tea at Unilever”: Prod #: 712438
- “Monsanto Company – Doing Business in India”: Prod #: W12183
- “Dow Chemical: Innovating for Sustainability”: Prod #: 112064
- “The Political Economy of Carbon Trading”: Prod #: 710056

Method of Evaluation:

Grading Policy*:

1. **Case memos – 60%**
2. **Final exam – 20%**
3. **Group participation – 10%**
4. **Attendance, Class participation, & voting – 10%**

***ALL ASSIGNMENTS MUST BE HANDED IN ON TIME. ANY LATE SUBMISSIONS RECEIVE AN AUTOMATIC REDUCTION OF ONE LETTER GRADE. IF AN ASSIGNMENT IS AN HOUR LATE OR A YEAR LATE, THE PENALTY IS THE SAME.**

Group Roles:

1. Group Manager
 - Develops and submits work plan detailing group responsibilities, outputs and schedules (due 2 weeks prior to presentation-with the exception of Group Cases 1 and 2)
 - Coordinates the group's work
2. Oral Presentation Team (3 or 4 members)
 - Develops presentation materials
 - Presents a 2.5 - 3 minute briefing via *Adobe Connect* with PowerPoint presentation (1 member)
 - Emails briefing video (URL) to Janelle by midnight Friday the week prior to class
 - Group 1 will have until Sunday at midnight to email the video
3. Written Report Team (3 or 4 members)
 - Outlines, researches and writes required memo
 - Each group will take a position for or against the question of the case.

Group Process:

1. Sign-up for groups prior to first class session.

Group Case Selection Form will be sent out on Wednesday August 28, and will be available on CourseWorks, and should be submitted to Janelle (jsommerville@ei.columbia.edu) **no later than** 12pm on Sunday September 1.

2. Identify group roles at first meeting.
3. Present written and oral reports.
4. All class members (other than members of the week's group case) will post in the Discussion board on New CourseWorks stating which group option you would choose for the case, and why, by **Wednesday at 9:00am**. The Title of the Thread Post should state either "Group A" or "Group B."
5. In class, both groups will sit in the front row; Group A on the right, Group B on the left.

Week 1: September 3, 2012: What is Sustainability Management? What is Management? What is Public Management?

NOTE: The first class session will be held on Tuesday, Sept 3rd from 8-10pm, not during the regular session time.

Reading Assignment:

- Steven Cohen, William Eimicke and Tanya Heikkila, The Effective Public Manager (EPM) (5th edition): Chapters 1 and 2
- Steven Cohen, Sustainability Management: Preface, Chapter 1

Communication Skills: Memo writing and Briefings: (Lecture by Steve Cohen)

Week 2: September 11, 2012 Internal Organizational Management: People, Work, Money and Information

Reading Assignment:

- Steven Cohen, William Eimicke and Tanya Heikkila, The Effective Public Manager (EPM) (5th edition): Chapters 3, 4, 5 and 8.

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case #1: "The Problem of Tom" (Available on CourseWorks)

This case details the management issues posed by Tom McKenna— a staff person with great technical skills whose personality problems impair his performance in the organization. This case could happen in any organization and it creates the classic problem—what to do with the staff person with excellent technical skills but poor social and/or political skills.

Group Memo/Presentation #1:

In this case you are Ginny Oliver, a Branch Chief in Navy's Office of Electronic Communication. Your boss, Gill Garber, has asked you to brief him on the following issues:

1. **Groups A and B:** What are Tom McKenna's strengths and weaknesses as an employee?
2. **Groups A and B:** What are the causes of the problems he has created?
3. **Group A:** Argue that Tom's performance can be improved and what action should be taken.
Group B: Argue that Tom's performance can't be improved and what action should be taken.
4. **Groups A and B:** Discuss examples of similar problems that you (as Ginny Oliver) have faced in your experience and how they were handled.

Individual Case #1: "Maintaining New York City's Parks in the Face of Budget Cuts" (Available on CourseWorks)

Some of the city's best maintained parks, including Central, Bryant and Prospect Parks, have been improved and maintained in large part by private conservancies who raise significant amounts of money, operate programs and hire staff (including maintenance staff) independent of the Parks Department (although under DPR control). New Yorkers have been generous with their time and money in support of some of the city's parks. Much of their money and deeds were channeled through privately formed organizations devoted to the upkeep and programs of city parks. These organizations include the Partnerships for Parks, the Central Park Conservancy, the City Parks Foundation, the Prospect Park Alliance, the Riverside Park Fund, Friends of Van Cortlandt Park, the Historic House Trust, and hundreds of neighborhood Friends of Parks groups just to name a few. The impact of these groups has been unmistakable. In 2003, when the city budgeted \$259,448,184 to DPR, the department raised over \$64,225,000 from not-for-profit partners. On the other hand, parks that rely almost exclusively on city funds and lack community and financial involvement have not been able to make up for city shortfalls.

Individual Memo #1:

The Parks Commissioner, Veronica White, has asked you, her Deputy Commissioner for Budget and Administration, to develop an analysis of the pros and cons of generating additional resources for and from the city's parks. You should address the following in your memo:

1. Should parks try to generate more private resources than they currently generate? Present the pros and cons for generating more private revenues.
2. What would be the political and managerial costs and benefits of generating additional private revenues?

3. How would new revenue be generated? How would these resources be allocated among the parks?
 4. Recommend a course of action for OR against generating additional resources for and from the city's parks.
-

Week 3: September 18, 2012 External Organizational Management: Strategy and Communications

Reading Assignment:

- Steven Cohen, William Eimicke and Tanya Heikkila, *The Effective Public Manager (EPM)* (5th edition): Chapters 10 and 11

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case #2: "Congestion Pricing in New York City" (Understanding Environmental Policy manuscript; Available on Courseworks)

With New York City's traffic problems growing each year, the city requires a solution to ease congestion and reduce pollution in the urban area. With limited authority to toll bridges or roads within New York City, the Mayor is required to get authorization from the Governor and State Legislature to implement his plan to charge commuters to enter Manhattan south of 86th Street during the business day. Facing strong opposition from city residents outside Manhattan and their representatives in the state Assembly and Senate, the Mayor was initially able to strike a 12th hour deal to stay in the running for federal funding to implement the plan. In the end however, the proposal was killed by New York State Assembly leader Sheldon Silver.

Group Memo/Presentation #2:

It is January 2014 and Mayor Bloomberg has left office. You are the Deputy Mayor with responsibility for transportation and the new Mayor has asked you to convene a working group to assess the lessons in leadership and management that should be drawn from the effort to bring congestion pricing to NYC. You have decided to form two teams to develop a pro/con analysis on the issue.

1. **Groups A and B:** How did congestion pricing fit into NYC's sustainability PlaNYC 2030? What sustainability goals did it hope to achieve?
2. **Group A:** Present the argument for congestion pricing and indicate who the supporters and detractors are.
Group B: Present the case against congestion pricing and indicate who the supporters and detractors are.

3. **Group A:** What could Mayor Bloomberg have done differently that would have enhanced his effort to get congestion pricing passed? How can the new Mayor improve the probability of political success? Why might congestion pricing be revived? What could be done to revive the proposal?

Group B: Convince the Mayor that the issue is dead and should not be revived: What are the economic and political arguments against trying to revive congestion pricing? Is there an alternative policy that could reduce congestion?

Week 4: September 25, 2012: Environmental Policy and the Promotion of Sustainability Management

Reading Assignment:

- Steven Cohen, *Understanding Environmental Policy (2nd edition)*, Chapter 1 (posted to CourseWorks)

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case #3: “Hydrofracking in New York State” (Available on CourseWorks)

Hydraulic fracturing, or popularly, hydrofracking, is an important sustainability management issue in the United States. Domestic natural gas is a critical energy source, and can be important in reducing our carbon emissions. Yet, companies that use fracking to drill for natural gas do not have to comply with the many important environmental regulations. Due to the fact that the practice poses potential but severe risk to drinking water, states have taken various approaches to regulating this issue. This case study outlines the issue of hydrofracking and the legislative background prior to Governor Cuomo’s decision on lifting the ban on hydrofracking in the state of New York.

Group Memo/Presentation #3:

You are the Commissioner of the Department of Environmental Conservation (DEC) of the state of New York. Governor Cuomo has asked your team to conduct a study on the practice of hydrofracking and make a recommendation as to what the State should allow. He has asked you to not only consider the potential impacts to the environment and public health, but also to consider the potential positive impact the industry can bring to areas of the state which are currently in economic downturn.

1. Should the State of New York allow the practice of hydrofracking?

Group A: Make the case that the State of New York should ban hydrofracking in New York State.

Group B: Make the case that the State of New York should allow hydrofracking in select areas in New York State.

2. **Groups A and B:** How is your approach an improvement on the Federal approach to the issue? Ohio? Pennsylvania?
 3. **Groups A and B:** What are the environmental, economic, managerial and political implications of your decision?
 4. **Groups A and B:** Who will support your decision? Who will oppose your decision? What can the Governor do to mitigate the opposition and to leverage political support?
-

Week 5: October 2, 2012: Sustainable Manufacturing and Service Businesses

Reading Assignment:

- Steven Cohen, *Sustainability Management*: Chapter 2

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case #4: “Groom Energy Solutions: Selling Efficiency” (Purchase via Harvard Business School)

In the United States, commercial and residential buildings use 40% of all energy consumption, costing around \$400 billion. Groom Energy Solutions is an \$18.5 million company, and they see the implementation of energy efficiency measures as a win-win for everyone because increasing efficiency means reduced costs, pollution, and consumption. Groom Energy has been offering a full range of efficiency services to clients since 2005, including consulting, financing, installing, monitoring, maintaining, and innovating on energy technology. Now Groom Energy CEO Jon Guerster wants to find a way to expand their business to the next level, increasing to \$40 million annual revenues over the next five years. However, despite increased public awareness of the benefits of energy efficiency, studies by the Intergovernmental Panel on Climate Change (IPCC) show surprising underinvestment.

Group Memo/Presentation #4:

You are the strategic director at Groom Energy Solutions and CEO Jon Guerster has asked you to form a team to present the best path for increasing company revenue. He has asked for a memo and presentation that answers specific question and gives a clear strategic direction for the next five years to achieve the goal of increasing revenue to \$40 million. Create a memo and presentation that address the following questions:

1. **Groups A and B:** What are the advantages to energy efficiency? What makes it a “win-win”? What are the key drivers of energy efficiency implementation and what factors will most likely drive companies toward adopting those practices?
2. **Groups A and B:** What is the energy efficiency paradox? What are the cultural and financial barriers to energy efficiency adoption?

3. **Group A:** Make the case that Groom Energy should focus on expanding their geographic reach, domestically and abroad, to grow new customers. What does Groom Energy need to do to implement this strategy?
Group B: Make the case why should Groom Energy focus on targeting their existing geographic area, enhancing relationships with existing customers, and expanding into new sectors in currently covered regions?
4. **Groups A and B:** What obstacles will the Groom Energy face in increasing their revenue? How does your team propose to overcome these obstacles?

Individual Case #2: “Wal-Mart’s Sustainability Strategy” (Purchase via Harvard Business School)

This case study details of Wal-Mart’s movement from a defensive position regarding environmental issues to a proactive one in which encouraging sustainable manufacturing came to be viewed as a profit opportunity. As a company whose business plan hinges upon a tight control of its supply chain and a direct relationship with manufacturers, the case study details the influence that Wal-Mart has upon its manufacturing partners in implementing sustainability initiatives. This case study provides an example of the ways in which sustainability initiatives can be implemented into a company’s supply chain.

Individual Memo #2:

According to Elm, “[the sustainability pathway] is not an environmental initiative, it’s a business strategy. Your overall objective is to derive economic benefits from improved environmental and social outcomes. It’s not philanthropy.” Part of this business strategy is to have manufacturers and producers responsible for adhering to compliance standards. Consider the business strategy implemented by Wal-Mart from the perspective of a consulting firm. Your team has been tasked with assessing and improving Wal-Mart’s sustainability strategy and determining how such an assessment can inform the consulting firm’s work for other clients in the manufacturing and service industry.

1. Present the arguments in favor of **OR** against Wal-Mart creating full-time positions that are solely dedicated to sustainability. How would this action affect the company’s existing sustainability strategy **OR** how can the company improve its sustainability efforts under its current structure where sustainability is a new responsibility for employees in their existing positions? What kind of doors would it open in terms of initiating new *quick wins, innovation projects and game changers*?
2. Make an argument in support of **OR** against Wal-Mart’s new full-time sustainability team pursuing an organization-wide (as opposed to a network-level) *game changer* project that would involve lobbying for a cap and trade system. Discuss how this might fit into the corporation’s core business as well as the pros and cons of pursuing a nationwide carbon emission mitigation scheme that would generate increased revenues to support Wal-Mart’s existing sustainability initiatives. What other *game changer* projects should Wal-Mart pursue?
3. Assess the pros and cons of Wal-Mart’s size as a factor in implementing sustainable initiatives and it’s applicability to mid- and small-sized companies in the manufacturing and service industry.

Week 6: October 8, 2012: The Centrality of Energy

NOTE: Week 6's class session will be held on Tuesday, October 8th from 6-8pm, not during the regular session time.

Reading Assignment:

- Steven Cohen, *Sustainability Management*: Chapter 3

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case Study #5: "Nuclear Power and the Japanese Earthquake of 2011" (Available on CourseWorks)

This case study discusses the factors that led to the Fukushima Daiichi nuclear disaster in 2011, when a series of equipment failures and nuclear meltdowns released radioactive chemicals from the power plant, resulting in a level-7 nuclear crisis. The case study chronicles the chronology of the accident and the history of the plant; and it examines Japan's historical dependence on nuclear power, Japanese nuclear power regulation, and the politics of nuclear power in Japan.

Group Memo/Presentation #5:

You are the Japanese Minister of Energy, and the Japanese Prime Minister has asked you to form a team to come up with a ten-year energy plan for Japan. He is particularly concerned about the use of nuclear power – on the one hand, the country is heavily dependent on nuclear energy sources, but on the other hand, he does not want to see a second nuclear catastrophe.

1. **Group A:** Present the case for maintaining nuclear power as a primary source of energy in Japan's energy plan over the next ten years.
Group B: Present the case against reliance on nuclear power plants in Japan's energy plan over the next ten years.
2. **Group A and B:** How will your position and argument effect the adoption of renewable energy technologies in Japan?
3. **Group A:** If nuclear power remains a primary source of energy, it is necessary that investments be made in the regulatory and safety structure to hedge against the risk of another catastrophe. How would you plan to develop these programs and where would the funding come from?
Group B: What would be your timeline for phasing out the existing nuclear power plants in the country? What is your plan to replace the power generated at nuclear power plants in order to ensure that energy demand is met and how would these new projects be funded?

Group Case #6: “Keystone XL Pipeline” (Available on CourseWorks)

The proposed Keystone XL pipeline would transport oil from Canadian tar sands to the Gulf of Mexico. Extracting and refining oil from these sources are known to be more carbon intensive than regular crude oil, and it may be more harmful to the environment. Environmentalists are concerned about the possibility of spills, and the impact of the pipeline on global carbon emissions. However, the construction and operation of the pipeline could provide much needed jobs and business to local communities. The issue has become intensely politicized, and President Obama included a mention of the pipeline in his June 2013 speech on climate change.

Group Memo/Presentation #6:

You are Deputy to John Kerry, Secretary of the Interior. Secretary Kerry has asked you to conduct an analysis of the pipeline proposal and make a recommendation on whether or not to approve the project. He will use this to make a recommendation to President Obama. In your analysis, he asks you to respond to the following questions:

1. **Groups A and B:** Briefly discuss the history of the pipeline and the regulatory approval and environmental review processes.
 2. **Groups A and B:** Identify the main benefits and costs for and against approving the pipeline.
 3. **Group A:** Make a case to approve the pipeline. Will you put in place new precautions for transporting this type of oil?
Group B: Make a case against approving the pipeline.
 4. **Groups A and B:** What are the political impacts of your decision?
 5. **Group A:** How does this decision impact your climate change mitigation agenda?
Group B: How does this decision impact your job creation agenda?
-

Week 7: October 16, 2012: Sustainable Water

Reading Assignment:

- Steven Cohen, *Sustainability Management*: Chapter 4

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case #7: “Mexico City: Opportunities and Challenges for Sustainable Management of Urban Water Resources” (Available on CourseWorks)

This case study investigates Mexico City's water supply from "source" to "sink," and explores some local and regional water management issues. However, as the case will make clear, the

separation of source and sink is somewhat artificial. Water resources are both a source and sink, as it is not possible to divide this vital common pool resource. For this reason, the case also investigates examples of social conflicts arising from increasing water scarcity. Moreover, funding to meet the city's water needs requires other regions subsidize them. The tension of this relationship is illustrative of a key issue in common pool resource management - the challenge of mediating between multiple and often competing interests. Finally, this study explores some possibilities and initiatives for more sustainable management of water resources.

Group Memo/Presentation #7:

You are the Deputy Mayor of Mexico City and must draft a memo to the Mayor recommending a comprehensive water management strategy to meet the City's sustainable water goals, set forth in the National Development Plan. Operating within a River Basin Council, the Mayor needs to craft policies that meet the needs of the municipality as well as the region surrounding Mexico City. The Mayor has asked you to address the following:

- Group A:** Make a case for decentralization of Mexico City's distribution and treatment facilities. Be sure to discuss tradeoffs involved with your proposed strategy. How will this strategy be more effective in addressing the social, environmental and economic issues facing the city than past-centralized efforts? How will your strategy factor in the recommendations of river basin councils that are currently established in the region?

Group B: Make a case against decentralization of Mexico City's distribution and treatment facilities. Be sure to discuss the tradeoffs involved with your proposed strategy. How will this strategy be more effective in addressing the social, environmental and economic issues facing the city than past-centralized efforts? How will your strategy factor in the recommendations of river basin councils that are currently established in the region?
 - Group A:** Keeping in mind limited financial resources, make a case for using a majority of your funding to implement a more stringent pricing and billing structure under a decentralization strategy. How will your strategy address access and equity? Access and equity includes evening out service standards and the quality of water delivered throughout the city as well as ensuring that the poor are not priced out of water.

Group B: Keeping in mind limited financial resources, make a case for using a majority of your funding for efforts aimed at reducing Mexico City's inefficient water use under a centralized strategy – these efforts should be an expansion of the PROMMA programme that is briefly discussed in the case study. How will this strategy address limited funding for government projects and the limited financial resources of the large poor population in the city?
 - Group A and B:** What are some of the obstacles to implementing your proposed overall strategy? How do the proposed policies affect different groups within Mexico City and the surrounding areas?
-

Week 8: October 23, 2012: Sustainable Food Supply

Reading Assignment:

- Steven Cohen, *Sustainability Management* (Draft: 2010): Chapter 5

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Individual Case #3: “Sustainable Tea at Unilever” (Purchase via Harvard Business School)

Lipton tea represented the integral piece of Unilever’s “Sustainable Living Plan” unveiled in 2010, which encompassed wide goals for health and wellbeing of their consumers, reduced environmental impact and sourcing 100% of agricultural raw materials sustainably by 2020. This would involve a massive overhaul of Unilever’s supply chain for commodity sourcing. For Lipton Tea, this included all tea bags from Rainforest Alliance certified farms in 5 years. Unilever faced two significant challenges: ensuring all of their external agricultural sources were certified, and gaining market advantage for sustainable tea in regions where the sustainability message was less resonant. Unilever CEO Paul Polman believed that such ambitious goals could drive savings, innovation, and differentiation in its products in addition to propelling the company into a future market driven by higher sustainability standards.

Individual Memo #3:

Michael Leijnse, global brand director for Lipton Tea, has asked you to prepare a memo that will inform his upcoming presentation at the Unilever annual conference. It has been three years since the launch of Unilever’s “Sustainable Living Plan,” and your boss will be meeting with senior executives in order to update them on its progress. You are responsible for preparing responses to some of their likely questions, as they want to assess the progress of Lipton Tea and how it meshes with the company’s broader objectives. In particular, Leijnse has asked you to address the following issues related to Lipton’s involvement in sustainability:

1. What were the drivers for the “Sustainable Living Plan?” What are the main benefits to the firm?
2. Discuss the two challenges the company faces in furthering sustainability for Lipton Tea.
3. Present a strategy that would enable Lipton Tea to reach 100% sustainable sourcing in India.
4. Present a marketing strategy for Lipton Tea to reach new markets for sustainable tea in nations with emerging economies.
5. How can Leijnse generate internal support for this plan? How does it help Unilever meet its goals in the Sustainable Living Plan?

Group Case #8: “Monsanto Company – Doing Business in India” (Purchase via Harvard Business School)

Monsanto has been introducing innovative agricultural technology in business with India since 1949 starting with herbicides, later introducing hybrid seeds, and most recently offering in-the-

seed cotton trait biotechnology. Biotech seeds were able to reduce spraying pesticides and improve crop yields. However, regulatory challenges in India threatened Monsanto's growth. Monsanto needs to consider how to deal with an unpredictable regulatory process in Indian provinces while also working on a long-term strategy in the Indian market.

Group Memo/Presentation #8:

You are a team of management and policy analysts on a Monsanto's staff and you have been asked to brief Executive Vice President Steiner on the changing and unpredictable regulations in Indian provinces. He has asked you specifically to address the options for addressing this situation.

1. **Groups A and B:** Discuss the history of Monsanto in India. How does Monsanto's business in India contribute to its sustainability goals?
 2. **Groups A and B:** What are the main risks that Monsanto faces in terms of regulatory uncertainty?
 3. **Group A:** Make the argument that investments should be made in accordance with changing regulatory realities and Monsanto should embrace short-term maneuvers to comply with changing rules.
Group B: Make the argument that Monsanto should work only on products that have a straightforward approval process, but that limit innovation for local farmers.
 4. **Groups A and B:** What are the challenges to option you recommend? How will you generate internal support at Monsanto for this approach?
-

Week 9: October 30, 2012: Sustainable Cities

Reading Assignment:

- Steven Cohen, *Sustainability Management*: Chapter 6

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case #9: "PlaNYC: 2030: Sustainability in NYC" (Available on Courseworks)

Mayor Bloomberg launched "PlaNYC: 2030: A Greener, Greater New York" in 2007 and formed the Office of Long-Term Planning and Sustainability to implement the plan's 100+ initiatives across the categories of Energy, Transportation, Water, Solid Waste, Green Buildings, and Climate Change, among others. Working with over 25 city agencies to implement, the plan is based on the idea that environment and economic development are linked, and sustainability must be embedded in a city for it to flourish long-term and attract and retain business and residents. After three terms as mayor, Bloomberg is leaving office, and despite much success and general support for the plan, the political and budgetary support for the office, the plan, and sustainability is uncertain.

Group Memo/Presentation #9:

You are a team of direct reports to the recently elected Mayor, and you have been tasked with analyzing the success of the PlaNYC and making a recommendation about how to support and staff the office. The Mayor wants to know whether he/she should make sustainability a signature issue. The new Mayor needs to decide whether he/she will champion sustainability or prioritize other major policy efforts. The Mayor has asked you to focus on the following questions:

1. **Groups A and B:** Discuss the history of the Office of Long-Term Planning and Sustainability and PlaNYC.
 2. **Groups A and B:** Discuss the pros and cons for continuing on the sustainability path in the new administration. What are some of the operational and political methods for quietly lowering the priority of sustainability without eliminating the Sustainability office?
 3. **Group A:** Make the case to continue to strongly support sustainability. How can the new Mayor improve upon Bloomberg's work to make sustainability a key issue in his/her administration? What new initiatives or projects can the Mayor champion to make sustainability "his/her own" and distinguish it from the legacy of Bloomberg?
Group B: Make a case against Mayoral support for PlaNYC and the Sustainability office. Why should the new Mayor prioritize other signature issue(s) for his/her term?
 4. **Groups A and B:** What are the political and managerial implications of this recommendation?
-

Week 10: November 6, 2012: Sustainability Metrics

Reading Assignment:

- "Use sustainability metrics to guide decision-making" By Schwartz, Jeanette. Publication: Chemical Engineering Progress. Date: Monday, July 1, 2002
<http://www.allbusiness.com/manufacturing/chemical-manufacturing/904874-1.html>

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case #10: "Driving Sustainability at Bloomberg" (Purchase via Harvard Business School)

This case documents the formation and implementation of a sustainability initiative at Bloomberg. Originally, the initiative focused on integrating sustainability into all of the major departments at the company with a goal of reducing Bloomberg's carbon footprint by 50% in five years. In addition to organization-wide initiatives, the company decided to use its expertise in data to launch an additional tool for their Bloomberg terminals that focused on environmental, social, and governance (ESG) metrics for the equity side of their business. This

new tool met the demand of the rising market of socially responsible investing (SRI), which consisted of around ten percent of all assets under management in the USA in 2010. One of the primary challenges facing this side of the business is the inconsistency in the way companies report data and the many gaps in data that result from reporting inconsistencies. These inconsistencies also make it difficult for investors to make comparisons of the sustainability efforts of competing companies.

Group Memo/Presentation #10:

You are the sustainability team at Bloomberg and the CEO has scheduled a meeting with you to discuss the future of the ESG (Environmental, social and governance) metrics business at the company and to address the challenges the company faces in winning a larger market share. In order to kick off the discussion, your team has been asked to provide a brief five-minute presentation, or pitch, highlighting your team's recommended course of action for the ESG (Environmental, social and governance) metrics business at Bloomberg.

1. **Groups A and B:** Briefly highlight the challenges of collecting ESG (Environmental, social and governance) data and making this information available to investors in a uniform manner.
2. **Group A:** Make an argument for continuing to only provide company-sourced information. How is this decision likely to affect Bloomberg's share in the ESG (Environmental, social and governance) metrics market? How will this affect our customer's perception of Bloomberg?
Group B: Make an argument for deriving estimates for companies' data where environmental information is sparse. How is this decision likely to affect Bloomberg's share in the ESG (Environmental, social and governance) metrics market? How will this affect our customer's perception of Bloomberg?
3. **Group A:** Make an argument against an initiative to provide sustainability ratings. Focus on the challenges and benefits of pioneering this effort –does such an effort fit in to your team's strategy for the ESG (Environmental, social and governance) metrics business and Bloomberg's business as a whole?
Group B: Make an argument for an initiative to provide sustainability ratings. Focus on the challenges and benefits of pioneering this effort –does such an effort fit in to your team's strategy for the ESG (Environmental, social and governance) metrics business and Bloomberg's business as a whole?
4. **Groups A and B:** How does your pitch facilitate the incorporation of ESG (Environmental, social and governance) metrics into mainstream investment analytics? How does your strategy help Bloomberg's profits and market share grow and improve our position amongst competitors?

Reading Assignment:

- Steven Cohen, William Eimicke and Tanya Heikkila, *The Effective Public Manager (EPM) (4th edition)*: Chapter 6

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Individual Case #4: *“Dow Chemical: Innovating for Sustainability” (Purchase via Harvard Business School)*

When Andrew Liveris was appointed as Dow Chemical Company’s CEO in 2004, he began to implement a new mission of sustainability in the company. This case discusses the goal-setting process by Dow during two periods (1996-2005 and 2006-2015), and discusses how growth opportunities spurred continued innovation at Dow. It stresses the importance identifying areas of growth and strategic goal setting.

Individual Memo #4:

You are a management analyst working for Neil Hawkins, Vice President of Sustainability and Environment, Health and Safety EH&S at The Dow Chemical Company. He is preparing to meet with Dow’s Chairman & CEO, Andrew Liveris and David Kepler, the Chief Sustainability Officer/Chief Information Officer to decide the next strategic direction for sustainability at Dow. He has asked you to analyze their efforts to date, and come up with a recommendation for him to present at the meeting. You should address the following:

1. Discuss the mission of sustainability at Dow and how it tied operational performance and reporting to its goals.
2. Describe Dow’s approach to innovation and sustainability. What were the challenges it faced to this approach?
3. How did Dow’s approach to sustainability goal setting change from the first Ten-Year Goals (1996-2005) to the Second Ten-Year Goals (2006-2015)?
4. Lay out a strategy to present to Liveris about how the company should approach setting the next Ten-Year Goals. Should it follow either of the past two models? What are the main challenges it needs to address? Include a plan to build consensus among the company’s top leadership.
5. Use an external example of sustainability innovation success that you can point to in your recommendation. What have other companies gotten right that Dow can learn from?

Group Case #11: *“Bike Lanes in New York City”*

Under New York City’s Bike Master Plan, the city plans to add 1,800 miles of new bike paths and lanes to its infrastructure by 2030. This effort seeks to achieve multiple goals including reducing greenhouse gas emissions by encouraging alternate forms of transportation, fighting the obesity

epidemic while also making it safer for the existing cycling community. Mayor Bloomberg's efforts in terms of promoting bicycle ridership in the city have incorporated a lot of innovative strategies including the new Citi Bike bike-share system and its extensive incorporation of public outreach as well as the Ninth Avenue Bicycle Path, which was the first urban on-street parking- and signal-protected bicycle facility in the U.S. As a result of these efforts, New York City boasts the largest number of bike commuters as well as the largest supply of bike lanes and paths in the country. On the other hand, the city lags behind many other cities in the U.S. because it has the lowest bike share of commuters, the highest cyclist fatality and injury rate and the lowest rate of cycling by women, children and seniors. The expansion of bike lanes and paths has also been met with some opposition from residents and storeowners who still rely on motor vehicle transportation and available parking in their neighborhoods.

Group Memo/Presentation #11:

Mayor Bloomberg has decided to hold an open forum to discuss the progress of the Bike Master Plan that has been made thus far as well as a plan to move forward with the remainder of the city's goals. Your team has been asked to make a brief presentation at the beginning of the forum to set the stage for discussion.

1. **Group A and B:** Briefly discuss the pros and cons of adding bike lanes in a city that is as densely populated as New York City. How does this aspect make implementing a successful campaign different than in other, smaller cities across the U.S. that have been successful?
2. **Groups A and B:** Briefly discuss the pros and cons of the bike-sharing program that New York introduced. What could have been improved in the program?
3. **Group A:** You are a team from a bicycle advocacy group who will make a case in support of the success of Commissioner Janette Sadik-Khan's efforts in increasing bicycle ridership, expanding bike lanes and paths, and improving safety. Your argument should advocate for the continued expansion of bike lanes in the city.
Group B: You are a team led by Iris Weisenhall, who was involved in the lawsuit filed against the new bike lane in Prospect Park Brooklyn. Your team is to make a case that bike lanes are eliminating parking spaces and transportation options on which many communities in New York City rely and that bike lanes should be reserved for a limited number of streets in the city.
4. **Group A and B:** If the city's bicycle system was more integrated with other transportation options, such as the bus and subway system, how would your argument change? Discuss how the city could approach successful integration with the existing transportation infrastructure.

Week 12: November 20, 2012: Outsourcing and Network Management

Reading Assignment:

- Steven Cohen, William Eimicke and Tanya Heikkila, *The Effective Public Manager (EPM) (4th edition)*: Chapter 7

Participation:

- By 9am on Wednesday, all the students not in the Group Case of the week, should post to the Discussion Board on Courseworks stating if they would choose the option presented by Group A or Group B with a brief comment explaining why.

Group Case #12: “When Contracting Really Doesn’t Work: Atlanta’s Water Contract” (Access via CourseWorks)

Water systems can be city-run or privatized. The United States alone boasts 25,000 privately owned water systems. Joining forces with a private company has saved cities 30% of what they would have spent on a public system. Large, multinational companies have access to capital, possess the best technology, and are focused on cost control. However, as seen in Atlanta’s case, privatization is not always a solution. United Water offered Atlanta a low price when competing for control over the city’s water, but once it won that control and competition fell to the wayside, the company’s services were of low quality. This case study examines Atlanta’s failure and other cities’ success at outsourcing water systems.

Group Memo/Presentation #12:

Outsourced water systems work successfully in many cities. The case of Atlanta reveals that outsourcing water systems does not always work. Your Mayor has asked you to look into the issue of privatizing the city’s water system. He knows that Atlanta had a failed experiment with contractors, but that Indianapolis succeeded in privatizing its water system. You have convened a team from your department to examine those cases and identify how your city could design a successful strategy for dealing with Atlanta’s aging water infrastructure. Your team’s analysis should:

1. **Group A:** Make an argument in support of privatization or contracting out city water systems. Focus on the types of scenarios under which this strategy has been more effective than a public ownership strategy and why such a strategy has worked for other cities such as Indianapolis.
Group B: Make an argument in support of city-run water systems and focus on the types of scenarios under which this strategy is the most effective as opposed to a privatization strategy. Focus on the types of scenarios under which this strategy has been more effective than a public ownership strategy and why this strategy failed in the past.
2. **Group A:** How would you structure the bid process and ensuing contract to ensure a successful partnership and reliable operation of the city’s water distribution and treatment facilities? What performance measures would you use once the contractor’s operation of the facilities is underway?
Group B: Would you change internal processes and allocation of funding for the city’s water infrastructure in order to deal with this growing problem? Would you consider a bid process that would allow the DWM to participate? How do you plan to raise funds to partake in infrastructure projects?

3. **Group A and B:** Develop a specific work plan and strategy for the changes to Atlanta's current operating plan that your team has proposed. Be sure to include a series of performance measures that you would use to monitor the progress of your strategy.

DISTRIBUTE QUESTIONS FOR TAKE-HOME FINAL EXAM MEMO

Week 13: December 4, 2012: A Sustainable Planet and Conclusions

Reading Assignment:

- Steven Cohen, *Sustainability Management*: Chapter 7, Conclusions
- Steven Cohen, "EPA'S Pragmatic Approach to Regulating Climate Change"

Supplementary Background Readings for Group Case Study:

- Steven Cohen. "Climate Change and the American Political Agenda."
http://www.huffingtonpost.com/steven-cohen/climate-change-and-the-am_b_1694462.html
- Bill McKibben. "Global Warming's Terrifying New Math."
<http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719>
- KPMG. "Sustainable Insight-Special Edition, Rio+20 Debrief: Trading Places."
<http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/sustainable-insight/Pages/rio20-debrief.aspx>

Group Case Study #13: "The Political Economy of Carbon Trading" (Purchase via Harvard Business School) **And** "The Irrelevance of Global Climate Talks"(Access via CourseWorks)

In December 2009, 15 thousand leaders from around the world came together in Copenhagen for the fifteenth Conference of Parties (COP-15) to form a treaty to succeed the Kyoto Protocol that would be the first legally binding pact on climate change. There were points of contention in the deliberations for a binding agreement, including when emission targets should be adopted and aid to developing nations for climate change adaptation. By the end of COP-15, President Obama had forged a nonbinding agreement after negotiations with China, India, Brazil, and South Africa. Failure to form a binding agreement seemed to undermine the decade long task of creating a property rights for greenhouse gas emission regulation. The biggest question following the Copenhagen Accord is whether as a nonbinding agreement it could build a strong institution able to coordinate global efforts to fight climate change.

Group Memo/Presentation #13:

There were differing views on the success of COP-15's outcome. Critics of regulations on greenhouse gases thought this outcome was favorable and thought that direct talks between the worlds' biggest emitters was itself a sign of progress. Others have described Kyoto as disastrous and a failure. Many have lost hope in the international talks process as the mechanism for addressing this critical issue. You are a team of advisors hired tasked with creating a policy strategy for the United States in terms of regulation of greenhouse gases.

1. **Group A and B:** Discuss the driving causes of the perceived failure of international treaties. The science has been accepted (at least outside of the U.S), so why hasn't

- there been much progress in seeking the agreement and binding targets that the scientific community has recommended? Are there changes that could be made to the process that would garner more support from the U.S.? From Brazil, India, and China?
2. **Group A:** Make an argument in support of the top-down multilateral processes to create a system of nationally linked cap-and-trade schemes. What aspects of the current process can be changed in order to facilitate more positive outcomes from UNFCCC conferences? How can we learn from the successes and failures of the Kyoto Protocol and COP-15?
Group B: Make an argument in support of a bottom-up approach to meeting greenhouse gas emission goals that will be led by local governments, businesses, NGOs and civil society. What aspects of the current domestic and international landscape would you seek to change in order to facilitate this approach?
 3. **Group A and B:** What are the challenges to your approach? Under your scenario, how would you seek to encourage more collaboration between international governments and governing bodies with NGOs, local government, business and civil society? What can be done domestically in the U.S. to support your approach?

SUBMIT AND DISCUSS FINAL

Recommended readings:

- Blackburn, W.R. (2007). The Sustainability Handbook: The Complete Management Guide to Achieving
- Social, Economic and Environmental Responsibility. DC: Environmental Law Institute.
- Doppelt, Bob. (2003) Leading Change Towards Sustainability, Greenleaf Publishing Generation Corporate Citizenship. New York: Palgrave MacMillan.
- Googins, B.K., Mirvis, P.H., & Rochlin, S.A. (2007). Beyond Good Company: Next Guide to Achieving Social, Economic and Environmental Responsibility.
- Heinberg, Richard and Lerch, Daniel. The Post Carbon Reader: Managing the 21st Century' Sustainability Crises.
- Heinberg, Richard. The End of Growth: Adapting to Our New Economic Reality.
- J. A. Tickner, ed., Precaution, Environmental Science, and Preventive Public Policy (Washington: Island Press, 2003), 195-213.
- McDonough, William and Braungart, Michael. Cradle to Cradle.
- Senge, Peter M. The Necessary Revolution: How Individuals And Organizations Are Working Together to Create a Sustainable World.

Recommended Readings by Week:

Week 1 (September 5): Introduction to Management and Public Management, and Sustainability Management

- Doppelt: Part 1. Why some organizations succeed and others fail.
- Heinberg: Introduction. The New Normal, Chapter 1. The Great Balloon Race
- Heinberg & Lerch: Part 1. Foundation Concepts

Week 2 (September 12): Internal Organizational Management: People, Work, and Money

- Heinberg: Chapter 2: The Sound of Air Escaping.

Week 3 (September 19): Performance and External Organizational Management: Strategy, Communication, and Information

- Harford: Chapter 2: Conflict or: How organisations learn.

Week 4 (September 27)*: Environmental Policy and the Promotion of Sustainability Management

- Doppelt: Part II. The wheel of change toward sustainability
- Googins: Chapter 1. Next Generation Corporate Citizenship
- Tickner: Part I. Scientist's Perspectives on Precaution, Science, and Policy.

Week 5 (October 3): Sustainable Manufacturing and Service Businesses

- Senge: Part III, Chapter 8. Risks and Opportunities: The Business Rationale for Sustainability, Chapter 9. Positioning for the Future and the Present
- Organization for Economic Cooperation and Development. Sustainable Manufacturing and Eco-Innovation.

<http://www.oecd.org/science/innovationinsciencetechnologyandindustry/43423689.pdf>

Week 6 (October 10): The Centrality of Energy

- Heinberg: Chapter 3. Earth's Limits: Why Growth Won't Return: Oil, Other Energy Sources, Chapter 4. Won't Innovation, Substitution, and Efficiency Keep Us Growing?
- Heinberg & Lerch: Part 8. Energy
- PlaNYC 3010: Energy. <http://www.nyc.gov/html/planyc2030/html/theplan/energy.shtml>
- RenewableEnergyFocus.com: Wind and solar power sensitive to load factors. <http://www.renewableenergyfocus.com/view/8359/wind-and-solar-power-cost-sensitive-to-load-factors/>

Week 7 (October 17): Sustainable Water

- Heinberg: Chapter 3. Earth's Limits: Why Growth Won't Return: Water
- Heinberg & Lerch: Chapter 7. Water: Adapting to a New Normal
- U.S. EPA Water Quality Standards Handbook: Second Edition. <http://water.epa.gov/scitech/swguidance/standards/handbook/index.cfm>
- U.S. EPA Water Recycling and Reuse: The Environmental Benefits. <http://epa.gov/region09/water/recycling/>
- U.S. EPA: How to Conserve Water and Use it Effectively. <http://water.epa.gov/polwaste/nps/chap3.cfm>

Week 8 (October 24): Sustainable Food Supply

- Heinberg: Chapter 3. Earth's Limits: Why Growth Won't Return: Food
- Heinberg & Lerch: Part 5. Food
- McDonough: Chapter 4. Waste Equals Food.
- Tickner: Part III, Chapter 6. Fisheries and the Precautionary Principle
- U.S. Department of Agriculture: Census of Agriculture Shows Growing Diversity in U.S. Farming. <http://usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2009/02/0036.xml>

Week 9 (October 31): Sustainable Cities

- Heinberg: Chapter 5. Shrinking Pie: Competition and Relative Growth in a Finite World, Chapter 7. Life After Growth
- Heinberg & Lerch: Part 10. Cities, Towns, and Suburbs
- The World Resources Institute: The Urban Environment. <http://archive.wri.org/page.cfm?id=929&z=?>
-

Week 10 (November 7): Sustainability Metrics

- McDonough: Chapter 3. Eco-Effectiveness
- Tickner: Part V. Science for Solutions: A New Paradigm, Part VI. Science to Support Precautionary Decision Making.

Week 11 (November 14): Management Innovation and Quality Management

- Doppelt: Chapter 11. Correct the feedback loops of the system by encouraging and rewarding learning and innovation
- Harford: Chapter 3: Creating new ideas that matter or: Variation, Chapter 7. The adaptive organization

Week 12 (November 28): Outsourcing and Network Management

- Heinberg: Chapter 4. Won't Innovation, Substitution, and Efficiency Keep Us Growing?: Specialization and Globalization, Chapter 5: Shrinking Pie: Competition and Relative Growth in a Finite World.

Week 13 (December 5): A Sustainable Planet and Conclusions

- McDonough: Chapter 6. Putting Eco-Effectiveness into Practice
- Tickner: Part VII. Conclusion. Precaution, Environmental Science, and Preventive Public Policy.