SYLLABUS

STRATEGIES FOR
ENVIRONMENTAL MANAGEMENT -
The Path to Sustainable Development

HARVARD EXTENSION SCHOOL
ENVR E-105
(Course Code 21808)

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OVERVIEW OF THE COURSE

Students in the Harvard Extension School can take courses on environmental management and global sustainable development. This course provides a path between these two ends of the environmental management spectrum. A knowledge building method is used to provide a participative and realistic forum that enables students to both learn about the journey to sustainable development at the local level and to actually use the information from the knowledge forum. Different cases help the students explore the dynamics of sustainable development. We will examine how partnerships between a local government, its local businesses and its citizens can enhance each other’s movement down the path to sustainable development at the local level. Since this is also a distance learning course, resident students and students from outside the region will discuss the cases on-line. Each topic will be summarized in the Monday evening classroom. This discussion session is also posted on the course web page for all students to view.

OBJECTIVES:

• Learn how sustainable development can be initiated at the local level where there is a clear nexus between the local government, the local business and the individual
• Experience the journey down the path to sustainability by actually participating in a live case with representatives of the organizations to discuss their perspectives with you
• Develop skills that will enable you to contribute to a sustainable development program
• See how perspectives on the journey to sustainability vary across the globe with the participation of distance learners representing all the continents.
CLASS SCHEDULE:

Jan 30  What are Others Telling Us About Sustainable Development?

An overview of the course will be presented along with the topics that will be covered, including the course requirements and web page. We will be focused on several local businesses. Often local businesses learn about sustainable development (SD) from their corporate office or from a trade or business association. Other ways local businesses learn about SD are from a customer, an employee, a NGO, or from the community. It is difficult to have sustainability imposed from the outside and have it be effectively applied in the local facility, whether it is part of a large multi-national corporation or a single facility that is categorized as a small- or medium-sized business. There is such a conundrum with the definition and views people and their organizations have of sustainable development and a related concept known as Corporate Social Responsibility (CSR). Do we need to need certainty and clarity on all of this confusing information? It may be best to view SD as taking a journey or moving down a path. The path begins here in the community where we operate. From this very simple and controllable beginning let’s see where this will lead us.

Feb 6  Starting Our Journey to Sustainable Development

In 1992, the World Summit in Rio de Janeiro created a seminal publication entitled, *Agenda 21*. It pointed to the need to start the journey at the local level – something that most people have ignored by considering sustainable development a global issue. It is! However, it may be more practical to “Think globally and act locally!” Learning from *Agenda 21* will help us find our way on to the path. This course will lead us through many concepts and practices that we will have to master to keep moving down this path. There will be many challenges for us to overcome. To keep the interest of management, there will have to be careful alignment between the SD program and the vision, mission and core values (guiding principles) of our company. There are a significant number of “interests” that need to be monitored here in the local community. It would be good to perform a detailed stakeholder analysis to begin to understand these interests and to see what level of influence each stakeholder has over the forces that we need to grapple with in order to effectively move down the path. We also need to understand the flow of resources through our facility and know about the total proportion of the local flow of resources we command. It is important for us to take a “process focus” and to change the process in such a way that we can both conserve resources and eliminate all wastes. We will use hierarchical process mapping and linked accounting sheets to help us visualize this process focus and use this tools as a means of communicating internally and externally with out stakeholders.
Feb 13  Finding Partners for the Journey

The community is the nexus of the local business, the local government and individuals. The local business gets its “license to operate” from the local government and the citizens here in the community. The local government also has operations and services that cause environmental and social issues for the people in the community. They also have to operate within a budget and can experience financial problems when the economy changes. Communities have many opportunities to start moving down the path to SD. A NGO known as ICLES has some custom programs designed to help the community get started. It would be great to be moving down the path in partnership with the local government and other local businesses. Some of our suppliers are in the community. Our employees live here and participate in many local institutions and organizations. To what extent can the community and other businesses help us meet the needs of the stakeholders or get them to compromise in order to open the path up to all of the organizations that wish to move forward down the SD path? There is a practice known as “social marketing.” It will help us with this effort to gain some local partners.

Feb 20  Holiday – No Class

Feb 27  Discovering Our Environmental Responsibilities

Our environment includes both the work environment and the natural environment surrounding our facility beyond the “fence line.” We have been shifting our focus from regulatory compliance to something we call “compliance through prevention.” Conserving all of the resources used in our operations has helped us appreciate the meaning of eco-efficiency. The operations here create environmental “issues” for the stakeholders besides causing risks to worker health and safety and impacts on the environment. We need to know how the stakeholders are responding to these issues. An environmental management system (e.g., ISO 14001) helps track the “aspects” and impacts of our operations. An occupational health and safety management system (e.g., OHSAS 18001) helps track the hazards and risks of our operations. We can integrate these systems to find opportunities to improve our operations – to prevent environmental impacts and to have processes that are inherently safe. Our stakeholders will want us to use SD indicators (results) to measure the outcome of our efforts to move down the path to environmental responsibility. We need to find the best way to report on our environmental responsibilities. Finally, we cannot limit our program to what some people are calling “environmental sustainability.”

Mar 6  Discovering Our Social Responsibilities

Our social responsibility begins with how we treat our employees and extends to the various social impacts that we may have in the community. Our social responsibility is determined by our governance at the local level and how we manage our code of conduct with full accountability and with absolute transparency. We cannot hide behind
Corporate or business standards that cannot be effectively managed at the local level. Our code of conduct will create “issues” for the stakeholders. As in the case of our environmental responsibilities, we need to know how the stakeholders are responding to these issues. A social management system (e.g., SA 8000 or the ISO social responsibility standard currently being developed) helps us track the social “issues.” We need to make sure that all of our social programs are integrated and properly reflected in our code of conduct. Our stakeholders will want us to use SD indicators (results) to measure the outcome of our efforts to move down the path to social responsibility. We need to find the best way to report on our social responsibility. Finally, we cannot limit our program to what some people are calling “corporate social responsibility.”

Mar 13  **Discovering Our Economic Responsibilities**

Our traditional accounting system controls the economics inside the business. However, we need some additional accounting and financial tools to help promote SD both within the local business and in our reports to our stakeholders. We will need to account for our natural and social capital. The banking, insurance and investment community are showing a much greater interest in SD. As we move down the path, we should be able to readily provide the information they are asking for. An economic management system (e.g., enterprise resources planning system or Sarbanes-Oxley compliance system) helps us track the economic issues. As in the case of our environmental and social responsibilities, we need to know how the stakeholders are responding to these issues. We need to make sure that all of our economic responsibility efforts are carefully integrated into our overall financial systems. Our stakeholders will want us to use SD indicators (results) to measure the outcome of our efforts to move down the path to economic responsibility. We need to find the best way to report on our economic responsibility. Finally, we are not solely focused on making money from our SD program. However, it sure will help us make the case for our work and give us the means to invest in new projects that will help us move further down the path to SD.

Mar 20  **How Do We Integrate These Three Responsibilities Interactively?**

Finally, we cannot limit our efforts to what some people are referring to as the “triple bottom line.” There has been some considerable debate over the use of this term. It is through our attention to the three responsibilities in an interactive fashion that will determine how effectively we can move down the path to SD. This is a key component of any SD program. We need to look for all three responsibilities in each of our SD projects and make sure that we are addressing the triple responsibility with the interests of our stakeholders. The rewards of this effort will be a good financial return that will allow us to invest in other SD projects. In this way, we can move further down the path. Maybe this is what they meant about the triple bottom line! Yet to my accountant, there is only one financial bottom line. My management is also interested in the top line (i.e., revenues that are improved by branding). The triple responsibility should help us here as
well. Much of the criticism about CSR and SD comes from managers spending investor’s money on these programs. What constraints does this consideration impose on a program at the local level?

Mar 27  Spring Break – No Class

Apr 3  Creating a Sustainable Development Tool Box
Mid-Term Exercise Posted
Proposal for Semester Project Due (Graduate Students Only)

There are some organized programs that organizations can participate in that provide tools and methods that can be used locally to help move us down the path to SD. These programs include those of The Natural Step, Factor Four, Natural Capitalism, and a number of industry efforts (e.g., Businesses for Social Responsibility, World Council for Sustainable Development, and the Global Environmental Management Institute). However, you do not need to officially participate in their programs to use some of their tools and methodologies. There has been an effort by what is called the Sigma Project to develop a set of tools that can be used by a local facility. GEMI has introduced a tool known as SD Planner. The Systems Approach provides us with a set of quality management tools that work well with any of these other sets of tools. We use quality management tools in our day-to-day operations. They help us communicate effectively between management and the employees. Now we will have a common denominator to integrate all of our business improvement efforts. It has been difficult to track all of the indicators. Using a balanced scorecard is also helpful. However, a single score of our results would be much simpler. The Baldrige performance excellence model provides us with a way to score all of our SD results. It is like getting a grade point average in school! This same model also helps us score our true performance. We can score the people and systems that make our SD program work better. Working to improve the scores using feedback obtained in the scoring method helps us change the behaviors that are needed to help us move further down the path to SD.

Apr 10  Organizing and Conducting Sustainability Projects
Mid-Term Exercise Due

Most SD programs are “initiative” driven. Local facilities try to emulate what others have done. They take advantage of a large number of “success stories” and “best practices.” But to move more effectively down the path to SD, a facility needs to harness the energy and seek the involvement of its own employees. It is said that “An employee never resists their own ideas!” This is a true “bottom-up” approach. The Systems Approach helps employee teams prepare draft action plans for their projects. By presenting the information in quality management terms, managers have the necessary information to approve the resources needed for the employees to complete their work and determine the costs and benefits of their effort. Using the quality management tools requires the employees to develop the skills necessary to get the full benefit from them.
We hired a facilitator to help us develop these skills and then ran the program completely in-house. These tools helped us improve other aspects of our operations as well.

**Apr 17  Making the Case for Local Sustainable Development**

The management got involved in the SD program when they were asked to review and approve the employee teams’ draft action plans. They were amazed with the ingenuity demonstrated by the employees and were very enthusiastic about the program. We heard them say, “Wow! This is a great idea! Why didn’t we think about it?” Managers looked forward to the quarterly meetings where they were able to examine the costs and benefits associated with each of their projects and learn how the triple responsibility was being measured and managed. They helped us make the case for the program. All aspects of the SD program are included in the true performance score. They can review the balanced scorecard to see how the SD indicators are related to the financial performance of the facility. They have been testing the alignment of the projects to the vision, mission and core values of the organization. This helps them understand what they are contributing to the overall success of the organization. They are getting much more positive attention from the Corporate office and the trade associations that they participate in. Managers are sharing this information in the community through their involvement in the Chamber of Commerce, the Rotary and other organizations. They are receiving requests from other civic and religious organizations in the community to come and speak on their SD program.

**Apr 24  Leveraging Sustainable Behaviors with Customers and Suppliers**

Early in our program, we sought partners in the local community so we would not have to travel down the path to SD all alone. When we found out that our customers were very interested in our developing SD program, we decided to have some projects that were more focused on issues important to these customers. They really appreciated our dedication to product stewardship. We required each of our suppliers to spend a day in our facility learning about our SD journey. Each supplier was encouraged to begin their journey. Their processes are now viewed as “supporting processes” in our own operations. We started using environmentally preferable purchasing of many items. The suppliers took note of this. As a matter of fact, we added socially preferable requirements to the program to improve the triple responsibility of the program. Now our suppliers and customers are communicating with us on a regular basis on their progress moving down the path to SD and with some of their needs for us to focus on in our program. This has really improved our relationship with those businesses that affect the life cycle of our products and services. Marketing has used this goodwill to help secure new customers. Purchasing has developed some very strong relationships with our preferred suppliers. We now refer to this effort as our value chain.
May 1  **Participating in Voluntary Programs**

There are a variety of *public voluntary* programs at the federal, state and local level that can provide us with some information, a means to benchmark our efforts, and some valuable recognition for our progress. Our industry or business sector may have some *unilateral voluntary* programs for us to take advantage of. Many countries have *negotiated voluntary* programs. While they are not very popular here in the US, we should not rule them out. We need to learn how to evaluate participation in these programs and how they can be used effectively to move us further down the path to SD. It is important to integrate our tools and methodologies into the methods that are proposed by the organizations promoting their voluntary programs. Whenever we do this, they are always paying attention to how well we can integrate these programs into our core business practices. In some cases, we may be able to work in partnership with other SD efforts in the community that are participating in our or other voluntary programs.

May 8  **Where Will All the Continuous Improvement Lead Us?**

*Semester Paper/Projects Due*

Initiative driven SD programs always seem to die out after a while as priorities shift. By involving our employees in a “bottom up” fashion, it has been difficult to hold them back. By using our social marketing techniques, we have the entire community moving down the path to SD with us. Those folks in our corporate office and our trade associations are calling us all the time. We have won several awards for SD efforts from them and have helped them improve their guidance to other facilities based on our success with the methods described here in this book. The local community is using the same methodology in their public works and water treatment departments. After all, they are not so dissimilar to us with respect to having to run a “business.” We hope that our example will help others follow in our path. It takes a lot of skill to implement these ideas. However, our employees were able to do so because of the motivation provided in this book. Now it your turn!

May 15  **Course Review Session**

*Final Exercise Posted*

May 22  **Final Exercise Due**
GRADING

Students will be graded on the following basis:

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<th>Undergraduate</th>
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<tr>
<td>Participation in on-line discussion</td>
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<td>Book report</td>
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<td>Mid-term exercise</td>
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<td>Final exercise</td>
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<tr>
<td>Semester project/report</td>
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CLASS INFORMATION


The weekly class discussions will be held for all resident students in SEVER HALL Room 103 on the Harvard Cambridge campus. The time is 5:30 pm to 7:30 pm EST. Prior to this class, students will be discussing the topics on a group BLOG. Individual BLOGS will be created for three small businesses and three municipal department activities. Semester papers will focus on the contents of these BLOGs and will be commented on the main discussion BLOG. Much of the course content will be from a book manuscript that will be posted on the course web page. There will be active engagement with the City of Cambridge (Massachusetts, USA) representatives and local business people both on the BLOGs and in the weekly discussions. This will be a very interactive class – an opportunity to try out your new skills whether you are a distance learner or a resident student.

You can contact the instructor, Dr. Pojasek, directly for further information on the course. His email is rpojasek@sprynet.com. His telephone number is +1-781-641-2422.