

# **A Sustainable Environment: Our Obligation to Protect God's Gift**

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## **Embedding Sustainability in the Business School**

I was director of the MS in Environmental Management and Sustainability program in the business school of a large university for quite a few years. During that time the program had an excellent world ranking and grew to well over 130 students. The program focused primarily on environmental sustainability and neglected, to some degree, social sustainability. While the business school also offered an MBA program, like most business schools, there was little or no focus on sustainability in the MBA program.

I have maintained for many years that environmental and social sustainability should not be a discipline in a business school like marketing, accounting, finance or operations, but rather it should be a concept embedded in each of the disciplines where appropriate. In this manner every business school graduate will have been exposed to the concept and would understand its many applications in the business world.

In a similar respect, sustainability in a corporation should not be the responsibility of a CSO or a director of sustainability, but rather it should be a concept embedded in the culture of the company. In this manner, all or most of the employees would understand the concept and could work together to implement it in the corporation. And the best way to make this happen is to offer training in environmental and social sustainability at the corporation.

I was recently recruited to be Director of the MS in Sustainable Management program at the business school of a very large university. My primary role is to update the curriculum to meet the future needs in the area of sustainability. However, I am also teaching a course on operations management in the business school. While the course deals with the various functions of a product or service organization, it is an ideal opportunity to introduce and imbed the concept of sustainability. While it is not included in the syllabus of the course, this is a great time to add it and have the students be exposed to something very material to operations management. In an early module, I covered the current state of the environment so the students can appreciate why sustainability is so crucial today.

The four major environmental issues were included in one of the modules. For centuries, the concentration of carbon dioxide in the atmosphere had been 280 ppm but started to increase past the target of 350 ppm which was considered the maximum allowable. Today, we are consistently over 400 ppm. The consumption of the earth's natural resources is exceeding the rate of generation. Today, we are consuming the equivalent of 1.7 earths. Fresh water availability is very limited, and its consumption is continuing to exceed an acceptable rate. And then you have the population growth, an addition of about 10 million people every six weeks, which contributes to each of these environmental problems.

While covering the operations management of global projects, it made sense to introduce a global sustainability strategy, that of the Base of the Pyramid. The world economy can be described as about 4.2 billion people earning less than \$1,500 per year. Then you have about 2 billion people earning between \$1,500 and \$15,000 per year. And at the top of this economic pyramid is about 1 billion people earning over \$15,000 per year. Given this economic description of the world population, most companies sell their products and services to top of the pyramid. However, it makes more sense to start at the bottom which has the largest market potential and forces the selling company to offer a product or service that is very environmental and economic. An example is the company that started making small motors for bicycles to provide more convenience for the most common form of transportation. The company then started producing larger motors and began selling motorcycles. Then with a little larger motor, the company started selling automobiles and became the global company known as Honda. So this was an example of how a sustainability strategy can be incorporated in the discussion of global operations.

As the course not only covers operations for the production of goods but also for services, it made sense to introduce another sustainability strategy, that of “servicizing”. There are situations where a company selling a product that provides a service, it may make more sense to sell the service and maintain ownership of the product. An example is that of selling illumination rather than incandescent lightbulbs. When a lightbulb goes out, it is usually because the small wire filament was broken. When that happens we throw away that broken filament along with the glass, metal and ceramic in the lightbulb; i.e. the entire lightbulb. But why not make a better lightbulb where the glass bulb can be unscrewed to allow for the replacement of the wire filament. This will minimize the waste to just the filament. However, you can also melt down all the broken filaments and use that material to make new ones, thus generating no waste at all. In addition, this strategy reduces the importing of lightbulbs and hiring local people to service the lightbulbs. This is only an example as no one is making incandescent lightbulbs anymore.

So this is just a small example to show how sustainability strategies can be embedded in a business course allowing all students at a business school to understand and appreciate the concept of environmental and social sustainability, and how important it is for the economy and the environment.