Successful Environmental Stewardship in Universities

It is time for a green revolution in universities. The world has finally begun to move towards environmental awareness; with individuals, institutions, and local governments each taking their role in this process. What can universities do in this eminent global movement?

Underwood (2007) addresses this question in Newsweek article:

> As a $315 billion sector of the economy—and one that will train future leaders—higher education has a special responsibility to encourage environmental stewardship. The university presidents hope that even students who don't pursue increasingly popular majors in environmental studies will learn simply from being on a green campus, living in green buildings, eating sustainable food and absorbing everyday messages of conservation. (Underwood, A. 2007)

In both Japan and the United States, people realize the important role in environmental protection. Here I will analyze environmental projects in Japanese and American universities. Although there is no way to determine which environmental projects are more effective or advanced, there is a definite difference between the projects in Japan and in the US. By comparing them, I will identify the key factors in making a successful environmental program, and think of ways in which Japanese universities can improve.

First, we must analyze the current attitude of Japanese universities' on the environment. One way to determine this is through the ISO14001, a governmental program in Japan that encourages organizations to think environmentally. Groups enlisted must have annual goals that will lead to environmental protection, such as 5% reduction in paper use. The program annually checks registered groups to make sure that they are meeting their goals. For industrial companies, registration promotes an "eco-friendly" public image. Since its founding in 1996, Japanese universities too have gradually begun registering into this program. Figure 1 shows annual increase of registered groups since 1996, and Figure 2 shows the increase by universities.

Another way to analyze this trend is through environment related contests such as "Eco-products." Figure 3 shows the annual increase in the number of participants in "Eco-products." Although this contest is not only for universities but business companies and NGOs as well, it is logical to assume that the increase in participants means the increase in university participants. Therefore, it can be analyzed that universities are partaking in

these contests more than they use to. Also, environmental groups centered around universities, such as a group literally translated as the Private University Environmental Protection Association, have increased in membership. (Figure 4)

Through environmental programs, contests, and groups, Japanese universities are undeniably moving towards environmental change. But what can universities actually do?

From my analysis of Japanese and American universities, I have concluded that all environmental universities must have these four points: Policies, measurable progress, communication, and incentives. Only by implementing all of them, is it possible to have successful university environmental programs that will affect the campus infrastructure.

Having clear policies concerning environmental projects will help universities produce better results. Practically all universities in the ISO14001 program have clear policies. This is because, for each university to meet their goals set in the ISO140001 program, they must have well organized policies that will guide them to achieving those goals. Common projects in Japan include, keeping the air conditioner on at 28 degrees celsius

and printing on both sides. To have students and teachers participate in these programs, there must be university policies that support them.

In his book about the environment, Kato (2001) talks about his theory of how people find it easier to do something when it is policy. This is because when something must be done of free will, one must restrain themselves from doing what they want, which according to Kato, has its limits. For example, on a hot day, it is more likely for a student to keep the air conditioner at 28 degree celsius if such a policy exists. This is because when one has a choice to lower the air conditioner temperature, some students might go below 28 degrees. Obviously, people are more “cooperative” when something is an obligation, but that is not the only reason. It is easier for people to restrain themselves from doing something, when they know that everyone else has an obligation to do the same. Abstaining from turning the air conditioner down on a hot day calls for restraint, irrelevant to whether or not it is a policy. However, it is easier for someone to restrain themselves, when they know they are not sacrificing more than everyone else. If this behavior is of free will, the person will realize that they are sacrificing more than others, causing stress. Kato claims that this buildup of stress will one day cause the person to

give in, and turn the air conditioner to a cooler temperature. Through this theory, and logical reasoning, I deducted that it is easier for universities and its people to conduct environmental projects when policy is in place.

Another important point about environmental projects is “measurable progress.” This involves visual data or demonstrations of quantitative progress resulting from an environmental project. The reason this is important is to show students and faculty the fruits of their efforts. Seeing progress after some period of engaging in a project leads to motivation, and without it, people doubt that projects are making a difference. One example of this measurable progress in environmental projects is related to garbage disposal, and energy and water conservation. This is because both disposal and conservation are easily measurable. In Japan, *Kankyou-houkokusyo,* or environmental reports that all universities create and post on the internet, help carry out “measurable progress.” This allows anyone to see the progress that the university has made in a project.

However, such progress cannot be verified or conveyed without communication, which is another essential point. Without communication, no one will know how much progress a university is making, or even about the

success or mistakes that have been made. Communication within a university is vital to gather participants, and to make that project effective. Communication must transcend university community and form partnerships and brain trusts. Universities must communicate with other universities to share new ideas or work together on projects. Every year Japan holds the university *Kankyo-Forum*, an environmental conference. University students gather to discuss the environment, what they are doing at their universities, and future direction. There are also other opportunities to do this, like at environmental competitions, and *Gakuensai*.

I have realized that there is a great difference in how Japanese and American universities communicate. University environmental projects in Japan are usually led by members of environmental *circles*, or committees. These committees usually represent universities at competitions, and are frequent participants in any environmental project. In the U.S., Creighton (1998), a researcher, points out the following:

> Students often have environmental committees or groups that are independent of the university-wide committee. Sometimes these groups are interested in working on campus-based environmental stewardship, yet they may have other agendas. (Creighton, S.H., 1998, p. 255).

American university students are more enthusiastic towards

environmental projects outside of their universities, which also mean that there is a larger variety of non-circle environmental youth groups in the U.S. compared to Japan. These outside organizations include Campus Climate Challenge, Do Something, and Focus the Nation. This would greatly make a difference in how American and Japanese universities carry out their environmental projects. I therefore was unable to determine which country has more effective environmental projects, but it is certain that one does not greatly exceed the other in effectiveness. Japanese and American universities each have their strong points, and one of the strong points of American universities is their ability to gather participants for projects. This strong point directly connects to the last factor of making an environmental project work and last in a university; incentive. Comparing American and Japanese projects, I felt that Japanese universities do not provide enough incentive for the students for them to become active participants in environmental change.

In the US, the National Association of College Stores (NACS) annually holds the “Environmental Merchandising That Works” contest. At University of Michigan, the campus store gives students discounts for new notebooks when they return their old ones. The stores then reuse the wire,

saving on material.

At Oberlin University, the Campus Resource Monitoring System (CRMS) manages the energy use in dormitories. Using this system, which is accessible to all students, the university holds contests to see which dorm consumes the least energy in a given period of time. In the National Wildlife website (2007), an Oberlin professor comments that “The premise is that real-time data can be used to education, motivate and empower students to conserve resources.” The Oberlin has enjoyed great success every year since it was started.

If done right, students and universities can both benefit from environmental projects. One common way is a reduction in energy use, but there are more creative possibilities. As seen at the University of Wisconsin – Madison (UWM), the university resolved to implement parking change. UWM, which had been troubled by the lack of parking, was originally planning on construction of more parking lots. However, the university resolved to limiting car use and reorganizing parking arrangements. By taking a more environmentally friendly measure, UWM professor Nielson claims that “The alternatives are actually cheaper than expanding parking,

especially when all the externalities like air quality, noise pollution and safety are factored in." (as cited in Keniry, 1995, p.52) One of these measures was shortening the work days at university for the professors, and creating a work from home instead. This lessened the number of people coming to the university each day, and benefited the professors as well. Other programs included handing out student discount tickets to promote the use of public buses.

These cases show how universities have found ways to make students participate in environmental projects by linking them to their daily lives. American universities often carry out "contests" where there are merits for those who win or participate. This is motivating, and greatly influences a student's decision to participate. This is pivotal. There can be no university environmental projects without student participation, and therefore programs that are carried out must accommodate their interests.

One point that both countries' universities could work on is facilities that are environmentally friendly. Keniry (1995) writes in her book, "Incorporating ecological concerns into the design of buildings and campuses is a new challenge for most campuses." (Keniry, J., 1995, p.52). Twelve years

since its publishing, technology has advanced, and now there are more possibilities. Underwood (2007) states in her article, “At many schools, the construction of a new building is another chance to push green solutions. Orr credits the building with having helped to inspire hundreds of Oberlin students to choose professions in eco-design, architecture and related fields.” (Underwood, A. 2007). Constructing environmentally friendly buildings is one of the projects that are yet to become common in universities. It relies greatly on the efficiency of technology, and therefore the more advance technology gets, the more environmentally friendly buildings universities have a potential of becoming. As the most technologically advance countries, Japan can play a leading role, and is something that we can look to in the future.

There is a famous slogan by Friends of Earth; “Think globally, act locally”. Big environmental terms such as “Global Warming” and “Earth Summit” makes environmental issues sound too big of an issue for students like me to lend a hand in. If we think on a local scale, however, there are probably countless things that even I can do. M’Gonigle and Starke (2006) writes; “universities are rooted in local places, yet are well networked

globally." A university can therefore be a place where students can actively play a part in this environmental movement. With some effort, Japanese universities can truly be successful in environmental stewardship, and play a leading role towards environmental protection.

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Appendix

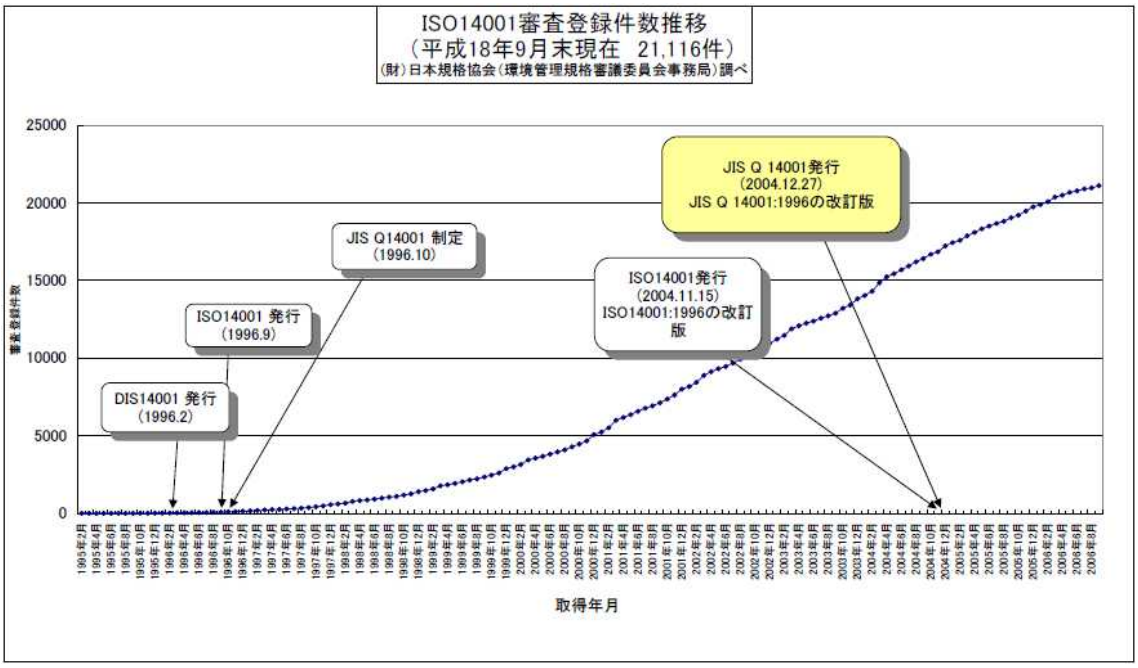

Figure 1

ISO14001 Annual Registration Number

Source: http://www.jsa.or.jp/stdz/iso/graph/graph1.pdf

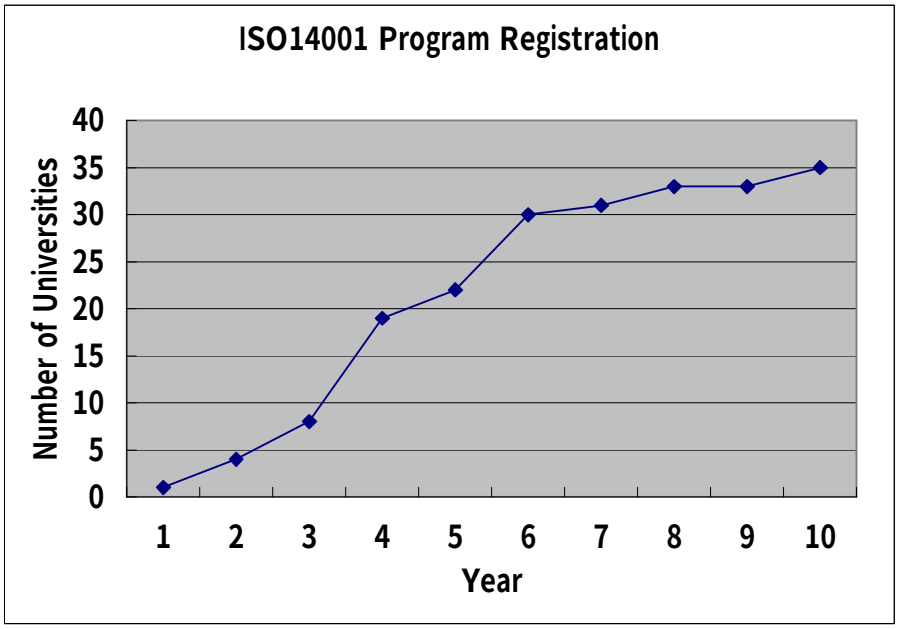

Table 2

Annual ISO14001 Registered Universities

note. The numbers indicated in the graph represent the following years: 1=1998, 2=1999, 3=2000, 4=2001, 5=2002, 6=2003, 7=2004, 8=2005, 9=2006, 10=2007.

Figure 3

Annual Participants at Eco-products

Source: http://eco-pro.com/

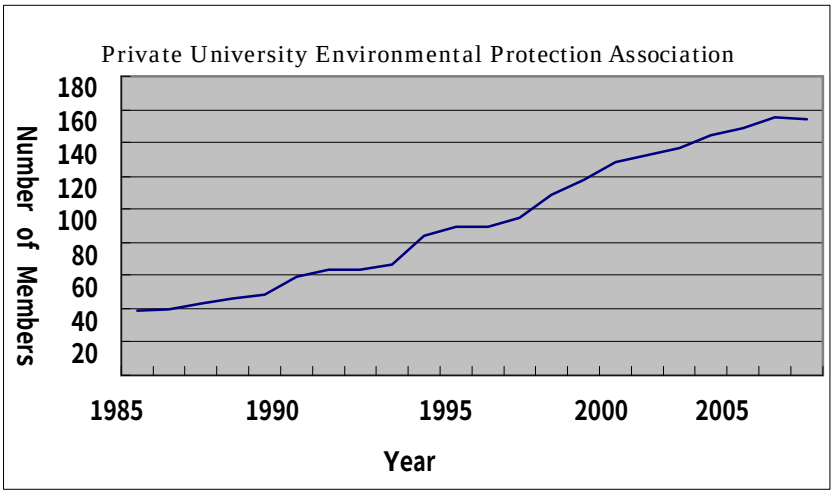

Figure 4

Annual number of membership in Private University Environmental Protection Association