

The faculty development program at Europäische Akademie Otzenhausen was both an affirmation of information I already had and an eye-opening experience that improved my understanding of the issues and possible solutions surrounding Environmental Sustainability.

There have recently been numerous statistics presented indicating that population is decreasing. However, I learned it is only decreasing in some parts of the world. The total number of persons being born is higher than ever, which came as a surprise for me. The workshop emphasized several times that this population explosion is the number one issue that must be addressed, because it affects all the others due to the number of people competing for resources and damaging the earth.

I was able to see that there was a slightly more unified approach in Europe, and specifically in Germany, than we have in the United States. While many German citizens do not like having the beauty of their mountains invaded by wind turbines, they seem to recognize the need for such alternative sources of power. Many nonrenewable natural resources are saved when a single turbine running for 24 hours can power a house for a year! That means a few turbines can run a village. When the government provides assistance to those converting to or adding solar panels, much of the day-to-day energy needs can be met by these alternative sources. It remains to find more environmentally sustainable ways to produce the turbines and the panels.

Europe's city planning has also made it possible for the countries to be more environmentally conscious. Smaller hamlets without suburbs mean people can walk or cycle to work, shopping, and recreation/leisure. Large cities have shops, parks, and other services at intervals, so they, too, can be accessed on foot or bicycle. For more centralized needs, the cities have public transportation available at reasonable cost, and the cities are connected by bus and rail, reducing the need for individuals to travel by car. There are low-cost passes available for students and others, such as the students at the Hartard Environmental Campus.

It seemed that most corporations have a sustainability goal as well as goals to produce products and make money. Funding is spent to improve building materials and techniques (which improves safety, but also the need to tear down and rebuild), to avoid polluting water rather than just cleaning it up afterwards, and to find alternative energy sources that can also recycle and reuse (such as farm waste into biofuel). I was heartened by the dogged ingenuity of the things we saw. And I was buoyed up by the honor given to art along with technology. In the U.S. the two are often seen as contradictory.

Even the rooms we stayed in modeled good environmental stewardship without a loss of comfort or convenience. Windows were designed to let in fresh air but keep out wind and rain; rooms were compact and efficient; instead of multiple layers of sheets and blankets, there were duvet covers that served dual purposes; recycling took place in our rooms and the dining room; the bathroom had minimal walls but all the needed conveniences (including dual-flush toilets to reduce water usage); multi-purpose washing liquid was even provided to ensure we visitors did not use our silicone-filled hair conditioners!

A National Forest was recently designated right behind the conference center. Retaining forest is critical to oxygen production, moisture conservation, cooling of temperatures around the globe, and wind currents. Foreign species were being removed from the forest and indigenous species were being replanted to protect the countryside from foreign invasive species taking over forest or crop land. Unlike our Lake Lanier, potable water was often off-limits for bathers and boaters so that extra energy wouldn't have to be spent cleaning it up. Forests are being lost globally due to the movement of people from rural areas to dense population centers, so it is important to preserve some of the remaining forested areas (after returning home I learned that Atlanta is doing just that with the Tree Fund.) But, with all the focus placed on sustainability research, there was also a focus on historical and anthropological research that extended to the local Celtic and Roman ruins that were treated with great respect and care. Developing a methodology that could support both ends of the spectrum would benefit us in the U.S.

The one area that wasn't presented as a separate topic was the issue of industrial food production. I had hoped to learn more about what Germany and the European Union were doing to make food production more sustainable. We visited a farm and learned about some of the sustainable techniques used there, but it was a small farm that supplemented its earnings by catering to the small-group tourist trade, as do many small farms in Europe. With one of the major air, water, and soil-polluting industries being food production, I wanted to learn more. Fortunately, I was provided with a book written by Klaus Hahlbrok, *Feeding the Planet: Environmental Protection through Sustainable Agriculture*. The book exposes the concerns surrounding population growth, plant genetic diversity, the ethical dilemmas of genetic engineering—human and non-human, the threat to nature of our current agricultural methods, water usage by agriculture (water is a major concern and a yet-to-be solved problem in Europe as in the U.S.), and much more. The most interesting and complex concept in the book, for me, was concern that we will create genetically engineered bioorganisms that will threaten the remaining biodiversity. Another concept I had not considered is that centers of production and centers of demand are often geographically distant from one another (e.g., Brazil produces the most soybeans, most of which are exported to China). This increases the environmental damage, as transportation requires additional resources, and lowers nutrition, which is lost to oxidation. The author also highlighted an issue that is frequently ignored in the United States, namely, that the earth can currently produce enough food for its population, but the types of foods produced (high in animals, animal products, and animal feed) are not sustainable uses of the cropland. If we continue to demand such large quantities of animal products, one lecturer commented, we will continue to deforest the earth (particularly the critical rainforest areas) to provide room for feedlots and grain for beef and other animal production.

Probably the most important thing I took away from the conference is the urgency for more collaboration and cooperation within and among countries. We cannot solve the enormous problem of maintaining very desirable lifestyles, while maintaining the health of our very desirable planet, by the work of one or two nations. It will have to be a global effort. While each of us can contribute our bit of recycling and conservation of resources, this problem is too large for household recycling and occasional mention in elementary school. It takes the education, collaboration and lawmaking models currently found in Europe to begin to turn the damage around—and even in the EU, there is discord. It means we all have to educate our children and our youth from a young age. They have to learn to value every aspect of the earth on which they live, to understand the dangers of our current course, and to prioritize preserving it for those who come after them. In our current political climate, where profit is the most highly valued outcome and forward-thinking ideas usually mean “tomorrow,” not “next century,” that may not be possible.

Even with that discouraging thought, I came away from the workshop encouraged by the progress being made in a country that has placed environmental sustainability close to the top of its priorities. Germany has led the EU into making changes that begin to alleviate problems that once seemed insurmountable. Our job is to brainstorm, with our students and scientists, how to create similar successes in our own nation.

I have begun with an Environmental Wellness lecture in my WELL 1000 classes (delivered in person or online through a video, depending on the class format). I am also in the outline stages of creating some boxes for inclusion in the WELL 1000 textbook about environmental wellness using the information from the workshop.

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