



## **Making the Commitment to a Healthy, Just and Sustainable Society**

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Thank you for inviting me to participate in your Presidential Institute, one of the largest annual gatherings of college and university presidents. It is a testament to the leadership of your President, Richard Ekman and your Executive Vice President, Rusty Garth, to have the role of higher education in creating a healthy, just and sustainable society a major part of your agenda at this meeting. It is also great to reconnect with several of you whom I have had the privilege to work with over the years.

### **What is Sustainability and why should we care?**

The literal definition of sustainability refers to the ability to maintain a positive status or set of conditions over time. In the past two decades, the concept of sustainability has emerged as an **aspiration for the direction of society** that evolved from the conclusions of the World Commission on Environment and Development (WCED) in its 1987 landmark report entitled "Our Common Future" (Ref.). Established by the United Nations, the WCED examined the worldwide problems of environmental pollution, degradation and destruction and their relationship to hunger, poverty, public health and social and political structure and human rights. Contrary to conventional wisdom, traditional economic development was making all of these problems worse. They called for a new kind of development - sustainable development - "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

The WCED definition of sustainability is focused on meeting human needs with an understanding that, as Senator Gaylord Nelson said, "the economy is a wholly owned subsidiary of the biosphere". Sustainability is not just about protecting the environment; it is also about finding ways to meet the basic needs of all current and future generations of humans. This can only be done by finding a better way for humans to live within the cradle of life. The earth and its ecosystems provide all the resources and services that make life possible, including the conversion of our waste products into useful substances.

### **Humanity at a Crossroads**

For the first time in human history, humans are pervasive and dominant forces in the health and well being of the earth and its inhabitants. We are the first generation capable of determining the habitability of the planet for humans and other species. No part of the earth is unaffected by humans and the scale of our impact is huge and growing exponentially. The Inuit in Alaska have the highest level of PCBs and DDT in their bodies in the world, even though they are 1000 miles from any industrial activity. Despite all the work we have done on environmental protection (especially in the US) all living systems are in long-term decline and are declining at an increasing rate according to all international scientific, health and policy organizations. At the same time, 2.7 billion people are without sanitation and earn less than

\$2/day, over a billion have no access to clean drinking water and nearly a billion are starving or are seriously malnourished. And international conflicts and war over resources as well as ideology are causing death and destruction as well as destabilizing world society.

And the challenge that will accelerate *all* the negative trends is global warming that is leading to unprecedented destabilization of the earth's climate. Human progress has accelerated in the last 10,000 years during a time of a relatively stable climate. The location of our cities and communities, agriculture, ports and other transportation, businesses and other human endeavor in large part has been based on the predictability of the climate. Now all bets are off. Abnormal global warming, caused by humans, is now destabilizing the earth's climate in ways that threaten to reverse human progress to date and undermine the health, security and survival of millions of people now and in the future. The resulting climate disruption is real and is already affecting us: it is *worse* and happening *faster* than predicted by the most conservative scientists.

Moreover, global climate disruption is different than every other environmental challenge because it is a function of all human endeavor, particularly the success of the western, industrialized economy. The emissions of carbon dioxide (the principal heat-trapping gas from fossil fuel combustion) *today* will continue to change the climate for the next century and a half creating an ecological debt for future generations. In addition the effects on the climate are both irreversible, e.g., whole scale extinction of species, and prone to non-linear, abrupt change with very little warning – witness the rapid melting of *all* the earth's glaciers.

We have a *civilizational* and *moral* crisis, not merely an *environmental* one. The scientific consensus is that society must stabilize global emissions of greenhouse gases by 2015 and reduce them by at least 80% by mid-century at the latest, in order to avert the worst impacts of global warming. Global warming is a stark (but not the only) indication of the fact that humanity is out of sync with its life support system. It is one of greatest and widest-ranging market failures ever seen -- the failure of the market to send proper signals about the real costs of using the atmosphere as a repository for greenhouse gases. See the latest Assessment Report of the UN International Panel on Climate Change ([www.ipcc.org](http://www.ipcc.org)).

All of these impacts are happening with 25 percent of the world's population consuming 75-80 percent of the world's resources. China and India's 2.5 billion people are now big players on the planetary stage. How will we cope in a world that will soon have 9 billion people and that plans to increase gross world product by 500 percent by 2050? This is an awesome ethical responsibility for us in the developed world, especially those of us in higher education.

As Einstein said, "We can't solve today's problems at the same level of thinking at which they were created." We currently view health, social, economic, political, security, population, environmental and other major societal issues as separate, competing and hierarchical when they are really systemic and interdependent. For example, we do not have environmental problems, per se. We have negative environmental consequences of the way we have designed our social, economic and political system.

*We have a de facto systems design failure.* The 21st century challenges must be addressed in a systemic, integrated and holistic fashion.

In order to meet human needs now and in the future we must make a rapid transition from a fossil fuel dependent, linear 'take, make, waste' and auto dependent society to a low carbon, less auto-dependent and circular production economy which lives off of nature's income, not its capital. The latter is embodied in sustainable forestry, agriculture and fishing.

We do have a crisis, but I am reminded of the Chinese symbol for crisis, which consists of two symbols – ‘danger’ plus ‘opportunity’. There is a great opportunity in rapidly addressing global climate disruption - benefits that society cannot get in any other way. How? With the current fossil fuel dependent economic system, the U.S. have lost 3 million manufacturing jobs in the U.S. since 2001 and energy expenditures are hurting the economy. A clean energy economy, starting with maximizing energy efficiency – will stabilize and reduce energy costs, reduce chronic air pollution and strengthen the economy by shifting expenditures for energy to investment in innovation. It will improve national and international security by reducing reliance on fuels from and payments to governments in unstable parts of the world. It will also provide 3.3 million *net* new jobs by 2020 and add \$1.46 Trillion in GDP in the US, according to the Apollo Alliance (see [www.apolloalliance.org](http://www.apolloalliance.org)). A clean, green economy will help restore US economic leadership based on new technology – the only way in which the US can compete in the world. Smart US leaders in business (like Ray Anderson), government and academia see the solutions to climate change as the greatest boon to the economy in the foreseeable future.

### **Higher Education Leadership**

Higher education plays a unique and critical role, one often overlooked, in making a healthy, just and sustainable society a reality. Higher education has been granted tax-free status, the ability to receive public and private funds, and academic freedom in exchange for educating students and producing the knowledge that will result in a thriving civil society. It prepares most of the professionals who develop, lead, manage, teach, work in, and influence society’s institutions, including the most basic foundation of K-12 education. As Michael Crow, ASU President, said at the Climate Leadership Summit of the ACUPCC last June, “Higher education has 100% of the educational footprint”. I would add that we have a great deal of responsibility for the “mindset footprint” that has gotten society to this point in our evolution: the current educational system is (unwittingly) reinforcing the current unhealthy, inequitable, and unsustainable path that society is pursuing. This is not intentional – it is a function of a worldview that is no longer suitable to create a world that works for everyone.

### **The Higher Education Response**

#### ***From Distinct Programs to Systemic Change?***

There has been exponential growth in distinct programs related to the *environmental dimension* of sustainability in higher education in the last decade. Exciting environmental studies and graduate programs in every major scientific, engineering and social science discipline, business, law, public health, ethics and religion are abundant and growing. Progress on modeling sustainability has grown at an even faster rate, especially in the last five years. Higher education has embraced programs for energy and water conservation, renewable energy, waste minimization and recycling, green buildings and purchasing, alternative transportation, local and organic food growing and ‘sustainable’ purchasing - saving both the environment and money. SUNY Buffalo has saved over \$100 million from energy efficiency projects in the last 20 years. *The rate of increase in these programs is unmatched by any other sector.* (See [www.aashe.org](http://www.aashe.org).) As one example, higher education is the largest user of wind power for electricity in the US with fourteen schools obtaining 100% of their electricity from renewable energy. The student environmental movement is the most well organized, largest and most sophisticated student movement since the anti-war movement of the 1960’s. These efforts have largely been distinct programs that are helping to begin the cultural shift to making deep and comprehensive sustainability the goal of higher education.

*Unfortunately, higher education is doing a fair to poor job on the health, social and economic dimensions of sustainability.* The overwhelming majority of graduates know little about the importance of sustainability or how to lead their personal and professional lives aligned with sustainability principles. A tiny fraction of graduates are taught the principles that Ray Anderson just told us about. Most people don’t know the

ecological footprint of most human activities because they are largely *invisible* to us. For example, it took 3000 lbs of natural resources to make my 5.5-pound laptop computer. All those resources went to waste before I received it. The materials and fossil fuels came from different parts of the world and the computer was manufactured somewhere distant from me. I have no idea of whether workers were paid a fair wage, what their working conditions are like or the impact on the environment because the price paid for the computer did not reflect any of these costs. One of the important roles of higher education is to make the seemingly *invisible* positive and negative impacts of human activities *visible* to students and the rest of society.

In the last 18 months there have been some large and encouraging shifts in higher education that lead my colleagues and I to believe that we may be approaching a tipping point in the orientation of higher education at some point in the near future. The most significant of these shifts is the American College & University Presidents Climate Commitment.

### ***The American College & University Presidents Climate Commitment.***

In December of 2006, 12 college and university presidents, working with the Association for the Advancement of Sustainability in Higher Education (AASHE), ecoAmerica and Second Nature, launched *The American College & University Presidents Climate Commitment*. The ACUPCC is a high-visibility, *joint and individual commitment* to address global climate disruption through actions to reduce and eventually neutralize greenhouse gas emissions, and to accelerate the research and educational efforts of higher education to equip society to do the same.

The ACUPCC is governed by a 17-member Steering Committee chaired by Michael Crow, President of Arizona State University – the second largest American university with 64,000 students. The Steering Committee makes all policy decisions for the ACUPCC. The coordinating organizations provide the organization and support. Several CIC members are members: David Shi, Furman University; Esther Barrazone, Chatham University; Richard Cook, Allegheny and Mitch Thomashow, Unity College.

The participating presidents are committing their institutions to create a comprehensive institutional action plan to move towards climate neutrality through the following actions:

- Complete a greenhouse gas emissions inventory within one year.
- Within two years, set a target date and interim milestones for becoming climate neutral. The emissions covered are from heating and cooling in buildings, electricity usage, commuting transportation and official airline travel by administrators, faculty and staff.
- Take immediate steps to reduce greenhouse gas emissions by choosing from a list of short-term actions
- Make sustainability an integral part of the curriculum and educational experience all students.
- Make the action plan, inventory and progress reports publicly available.

The commitment is *comprehensive* recognizing that providing education for sustainability to the leaders of tomorrow is as important to eliminating their school's contribution to global warming pollution.

The 12 presidents reached out to their colleagues and asked them to join them in becoming founding members of this effort. In 1 year, 466 college and university presidents from institutions in 48 states have signed the commitment. This is remarkable progress. These schools represent 3.5 million students - 24% of the college student population. They include 14 state university systems (including the U of California), Cornell, University of Pennsylvania, Duke, Oberlin, Furman, over 100 community colleges and 103 members of the CIC. I want to acknowledge Mark Sullivan, President of St. Rose College in NY for being the latest signatory, as of yesterday.

## **Courageous leadership**

The ACUPCC is an example of courageous leadership by university leaders. It is the first effort by any major sector of society to set a long-term goal of *climate neutrality* – meaning no net increase in carbon emissions, (1) either by eliminating their own greenhouse gases or (2) offsetting their build up in the biosphere by reducing emissions from other sectors or enhancing the capacity of the biosphere to sequester the carbon, e.g., planting trees. These presidents realize that getting to climate neutrality may be the hardest thing that modern society will ever attempt. We will need new and better design, technologies, economic instruments and a whole host of strategies for which the research capability of higher education is crucial. This includes dealing with population, consumption and social equity. In many ways it is bigger than the Marshall Plan, the Apollo project, the Manhattan project and the attempt to eradicate cancer - combined. Like these other challenges, it will take great higher education vision, leadership, research and setting an example for the rest of society.

These presidents believe that leading society to a low carbon, less auto-dependent and circular production economy that Ray Anderson so eloquently described, fits squarely into the educational, research, and public service missions of higher education. Tomorrow’s architects, engineers, attorneys, business leaders, scientists, urban planners, policy analysts, cultural and spiritual leaders, journalists, advocates, activists, and politicians—more than 17 million of them—are currently attending the more than 4,000 institutions of higher learning in the United States. They will need new knowledge and skills that only Higher Education can provide on a broad scale.

Moreover, presidents are making this commitment because they can best provide the moral and strategic direction and convene all the parts of a college or university - the faculty, students, financial and operational staff and trustees - and lead the *cultural shift* to embrace the education, research and operational changes needed to combat global warming.

As the climate issue continues to gain prominence, these campuses will be positioned as leaders in the higher education marketplace. They will have a leg up on attracting the best and the brightest students, faculty and research.

## **Impact**

The positive impact of *collective leadership* by a large number of colleges and universities will be huge. Global warming is a global problem requiring global solutions of immense proportions. Collaborative action toward the common goal is necessary - no one school or subset of schools can solve the problem. If the signatories thought that the current trajectory of leadership on their own campuses and collectively would solve the problem, they wouldn’t have created the ACUPCC – it wouldn’t be necessary. This collective action is causing government, business and industry to take notice that higher education sees climate disruption as a critical issue and that higher education is ready and able to take on the challenge to find solutions for the good of society. This could have a great impact on national policy regarding emission controls, funding for research and education and possibly funding for demonstration projects on a large scale that would be models for cities and towns across the country.

Finally, the American College & University Presidents Climate Commitment has fundamentally shifted higher education’s attention on sustainability and solidified its self-identity as a leader in the fight against climate disruption. We have dozens of anecdotes on how effective the Commitment has been in raising the importance of sustainability initiatives on campus and in the classroom, including elevating the status and effectiveness of sustainability policies, plans, practices, offices and personnel. The ACUPCC is also increasing the amount and effectiveness of communication and coordination across departments and between initiatives on campus, and with the surrounding community, as well as with

other campuses.

### **Moving Forward**

The 400+ charter signatories began reporting on the first milestone of the Commitment on November 15: their institutional structure for developing and implementing the climate action plans and the short term tangible actions they are taking to reduce greenhouse gas emissions. The reports are posted on the website – [www.presidentsclimatecommitment.org](http://www.presidentsclimatecommitment.org). The goal of the initiative is to have 1000 signatories representing 40-50% of the college student population by the end of 2009.

Already, because of the size and profile of the ACUPCC signatory group, it recently formalized an agreement with the Clinton Climate Initiative, which will provide access to \$5 billion in low-cost financing for energy efficiency projects. Twenty schools are acting as pilots for the program that will be rolled out in the first half of 2008. This is just one early example of many exciting, innovative benefits that are emerging for the schools that join the ACUPCC.

Twelve higher education associations that represent presidents, trustees, business officers, facilities managers, planners, purchasing agents and others are working together through the Higher Education Associations Sustainability Consortium (HEASC) to make sustainability a foundation of higher education through their organizations' operations, publications, conferences and professional development. For example, the National Association of College & University Business Officers (NACUBO) is sponsoring a web cast on February 28<sup>th</sup> on the ACUPCC specifically to deal with the financial dimensions of implementing the ACUPCC (see [www.nacubo.org](http://www.nacubo.org).)

On January 31<sup>st</sup>, 1400 campuses will be participating in a national teach-in about clean energy solutions to the climate disruption challenge called *Focus the Nation* ([www.focusthenation.org](http://www.focusthenation.org)). It is a national grass roots effort begun by Eban Goodstein, economics professor at Lewis & Clark College. This is one of the best opportunities to advance the level of knowledge and action by all members of your college or university and engage your local communities in dialog and partnership.

### **Conclusion**

It is impossible to be a leader in higher education without thinking a great deal about the future. Today's students and their children will experience the worst effects of climate disruption if we continue business as usual. We are faced with the greatest intergenerational equity challenge in modern history. When we surveyed the participating presidents last summer, the majority said the most important reason for making the commitment was that it was the *right thing to do* for the sake of their students and their students' children and grandchildren.

Some have argued that achieving climate neutrality is too hard or impossible. Interface is one stellar example of the fact that it can be done - because it must be done. The earth does not recognize how hard it is for us humans to change. It will respond to the physical changes we cause on its own schedule and in its own ways. It doesn't have the cognitive ability to say that it must wait for us to figure out how we can change to preserve our way of life and ourselves.

We are now in the process of breaking away from an old paradigm which, like gravitational pull, will require a great deal of energy, commitment and perseverance. We can do it if we set our minds to it. When President John F. Kennedy set a goal for man to reach the moon in a decade, our country had no way of knowing if it could be done. But because it was a goal we shared and to which we put our minds, hearts and our backs, we achieved the goal in 9 years and unleashed the scientific and technical revolution that led to so much innovation from the Internet to materials science to breakthroughs in medicine that are the basis of life today. We need that kind of leadership today from the great leaders in

society, especially in higher education. There are lots of other examples of this kind of bold leadership that pushes the limits of knowledge to go beyond what is possible now. Is this not one of the primary thrusts of higher education? Is this not one of reasons private higher education is so important to our future?

Thank you for everything you are doing to help create a healthy, just and sustainable world and a *special thank you* to those of you that have taken the next important step in making the American College & University Presidents Climate Commitment. I hope all of you will join this effort because the future of humanity is depending on us. For, if higher education doesn't lead, who will?

### **Resources**

American College & University Presidents Climate Commitment  
[www.presidentsclimatecommitment.org](http://www.presidentsclimatecommitment.org)

Key web pages:

- Breaking news (including a Summit summary, new ACUPCC policies, and news articles) - <http://www.presidentsclimatecommitment.org/html/news.php>
- The Commitment document itself (you can download a PDF from this page as well) – <http://www.presidentsclimatecommitment.org/html/commitment.php>
- About the Commitment (including “who’s who” and Steering Committee members) - <http://www.presidentsclimatecommitment.org/html/about.php>
- Frequently Asked Questions - <http://www.presidentsclimatecommitment.org/html/faq.php>
- Why sign - <http://www.presidentsclimatecommitment.org/html/whysign.php>
- List of signatories (you can sort by state or by institution using links on the right) - <http://www.presidentsclimatecommitment.org/html/signatories.php>
- “A Call for Climate Leadership” - <http://www.presidentsclimatecommitment.org/html/faq.php>

### **Biography**

*Dr. Cortese is the principal founder and President of Second Nature, a nonprofit organization with a mission to develop the national capacity to make healthy, just, and sustainable action a foundation of all learning and practice in higher education. He is Co-founder and co-coordinator of the Higher Education Associations' Sustainability Consortium, a co-founder of the Association for the Advancement of Sustainability in Higher Education and a co-organizer, along with AASHE and ecoAmerica, of the American College & University Presidents Climate Commitment.*

*Prior to his work with Second Nature, Dr. Cortese was the Commissioner of the Massachusetts Department of Environmental Protection. He was the first dean of environmental programs at Tufts University and spearheaded the award-winning Tufts Environmental Literacy Institute and the Internationally acclaimed Talloires Declaration of University Leaders for a Sustainable Future.*

*Dr. Cortese has BS and MS degrees in civil and environmental engineering from Tufts University and a Doctor of Science in Environmental Health from the Harvard school of Public Health.*