


Education and Action for a Sustainable Future



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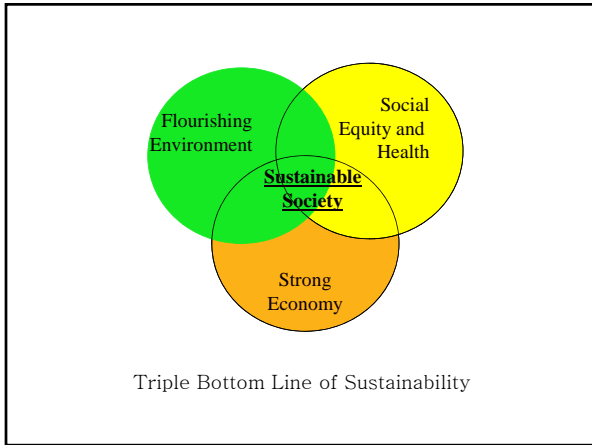


- Part I What is sustainability and education for sustainability?
- Part II Trends and Examples
- Part III Resources for you!
- Part IV Positive Possibilities - next steps


Sustainable Development is often defined as:

“meeting the needs of the present without compromising the ability of future generations to meet their own needs”

World Commission on Env. and Development, (1987). *Our Common Future*. England: Oxford University Press.

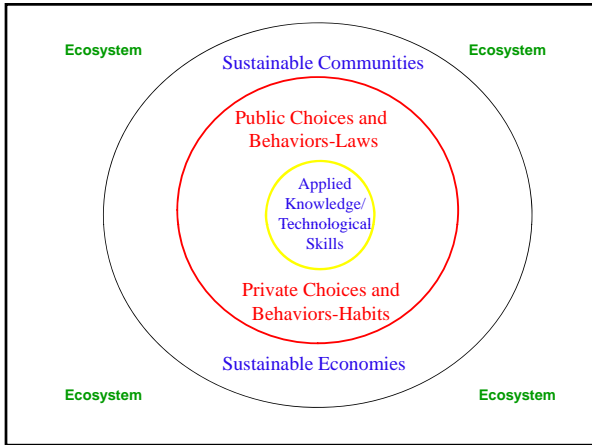



The United Nations has declared a **Decade of Education for Sustainable Development 2005-2014**



Education for a Sustainable Society:

“enables people to develop the knowledge, values and skills to participate in decisions ..., that will improve the quality of life now without damaging the planet for the future.”



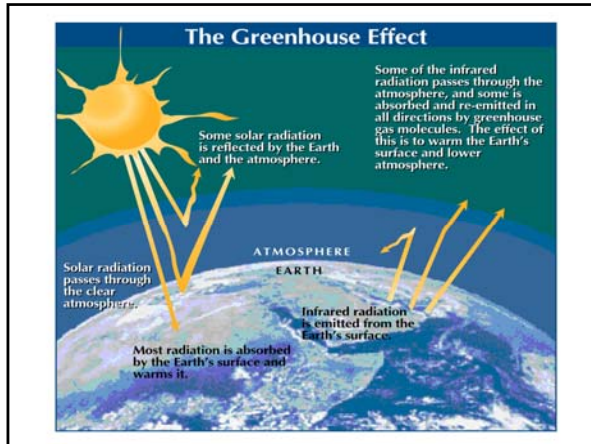


Many of you are the latent professors for the U.S. population!

Your are in a unique and important position to make a difference. Your work is important!

Get creative with your job description...

How to make it safe? Make everyone look good!



Effects -Climate Change

- ◆ Disruption of food production and the food chain
- ◆ More extreme weather events
- ◆ Disruptions of ecosystems and the food chain, including water supplies
- ◆ Spread of disease e.g. West Nile, Malaria, Dengue Fever
- ◆ Submersion of land masses –
1 to 4 foot sea level rise - now up to 80 feet
50% of world's population lives on the coasts

= Civilization Disruption

Source: Intergovernmental Panel on Climate Change


We are the first generation capable of determining the habitability of the planet and the quality of life for humans and other species.

The decisions of the next few years are crucial.
The decisions of this generation are crucial.

Global Perspective


life supporting resources
declining

consumption of life supporting resources
rising




You already know this, but this needs to be common knowledge.

**Our decisions will create:
more scarcity and suffering, or a future of
greater abundance and higher quality of life**




Why is Sustainability Education such a high priority?

1. Much of the public doesn't know that we are exceeding the carrying capacity of the planet. (www.myfootprint.org)
2. Public doesn't know **we can reduce human suffering, environmental degradation and social ills now while building stronger economies**
3. A rapid shift in mindset is needed and **education to action is the key.**

 **We need to move from an**

**old inaccurate worldview to an
Updated Worldview of Sustainability**


 **Potentials for Energy Conservation,
Renewable Energies and
Poverty Reduction**

Plan B: Mobilizing to Save Civilization

by **Lester Brown**

Founder of Worldwatch Institute

Downloadable at www.earth-policy.org

 **Potentials for Renewable Energies**

Can we meet all our needs
with renewable energies and energy
conservation?

YES

KEY EDUCATION OUTCOME

You are contributing to the following goal:

Community members know how to and **choose** to be more environmentally, socially and economically responsible.

Where? In the personal, business, community and governmental spheres.

Educational solutions complementing your work:

- All of us engaged as **effective change agents** and **systems thinkers** for sustainability
- From apathy → caring involvement.
- Know that our daily decisions affect the quality of life of people around the globe.
- Culture of sustainability – MTV's Breaking the Addiction to Oil
- Push for appropriate policies

Part II

Trends and Examples

U.S. Partnership for Education for Sustainable Development:

Convene, Catalyze and Communicate

Sector Teams: Business, Higher Education, K-12, Communities, Faith, Youth...



U.S. Partnership for Education for Sustainable Development

- Non-partisan
- Multiple Sector Teams: Business, Higher Ed., K-12, Youth, Faith...
- Convene, Catalyze, Communicate

www.uspartnership.org

www.uspartnership.org
Over 300 partner organizations. Join for free
Participate in a sector team



Business principles of sustainability. Examples:


- Cradle to Cradle (McDonough)
- Biomimicry (Benyas – Like nature, efficient and not toxic)
- World Business Council for Sustainable Development (www.wbcsd.org)
- Natural Step (Sweden and U.S.)
- Natural Capitalism (Lovins, Harvard Business Review)
- Ethical Markets – Hazel Henderson

Trends in sectors – some examples

- **Business** – LOHAS – Japan, European Union REACH, Global Reporting Initiative, Businesses for Social Responsibility, Shareholders, Investors (e.g. Swiss RE)
- **Communities** - Mayors Climate Protection and Smart Growth, Grand Rapids model
- **Faith** - Religious Partnership and Interfaith Alliance, Regeneration Project
- **Youth** – Climate Challenge, Reduce Your Impact, Action Campaigns...

For higher education,
Sustainable Development is being integrated into:

plus legislation and public awareness



You will be more successful if there is sustainability education to get the consumers, investors and workers ready.



Internationally, a taste...

- In Sweden, it is a law that all undergraduates be educated about sustainability
- High priority in higher education principles in European Union
- U.N. Decade ESD intl conferences
- Earth Charter in Costa Rica
- Sustainability Group, World Federation of Colleges and Polytechnics
- Global Sustainability Group out of MIT, Chalmers,...
- **All want partnerships with businesses**



Association for the Advancement of Sustainability in Higher Education

AASHE
(AY-shee)

www.aashe.org

Sign up for the free bulletin

Search the resources and the digest




GREAT NEWS!!!
Growing National Trend in U.S.:

**Seventeen national HE associations
 and over thirty national disciplinary
 associations are creating initiatives
 on Education for
 Sustainable Development**




**Engaged National Associations
 over 4,000 higher education institutions**

1. ACE—Am. Council on Ed.— Presidency Magazine W'06	9. APPA – Facilities
2. AACU – Ass. of American Colleges and Universities	10. NACUBO – Business
3. AACC – Am. Ass. of Community Colleges	11. SCUP – College and University Planners
4. AASCU – State Institutions	12. ACUI – Student Unions
5. ACUHO – Housing	13. ACPA – Student Life
6. NACAS – Aux. Officers	14. NACUFS – Food
7. NAEP – Educational Buyers	15. ACEED-I – Events and Conference Directors
8. NACA – Campus Activities	16. NACS – Campus Stores
	17. NIRSA – Recreation
	18. AGB – Ass. of Governing Boards
	AND MORE



**Higher Education Associations
 Sustainability Consortium
www.heasc.net**

**Some of the links from items in this
 presentation at
www.heasc.net/sustainablefuture**




Higher Education Associations

- Collaboration with higher education associations on:
 - AASHE Rating system - STARS
 - **President's pledge on climate change – over 600 presidents in all 50 states!**
www.presidentsclimatecommitment.org
 - Learning Outcomes in sustainability for all students
 - Resources from Business and Facilities Officers (NACUBO and APPA)! – share with your other customers




Disciplinary Associations Network for Sustainability – DANS www.aashe.org/dans

<ul style="list-style-type: none"> • American Psychological Association • Sociology • Religion • Philosophy • Math • Broadcasting • Architecture • Engineering (civil, mechanical, eng. ed.) • Business 	<ul style="list-style-type: none"> • Ecological Economics • Chemistry • Biology • American Association for the Advancement of Science • Computer Research • Humanities • Women's Studies • Political Science • Anthropology • More...
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DANS – Infusing s.d. into:

1. Curricula
2. Promotion and tenure and accreditation
3. Legislative briefings
4. Informing the public (**work with them**)
5. Cross-disciplinary approaches
6. Professional identity as an academic



All disciplines can teach about energy if we help them – examples

- Psychology – changing energy consumption behavior
- Sociology – shifting societal norms re: sustainability
- Anthropology – shifting societal culture around energy
- Political Science – public policy for green policies
- Biology and Chemistry – obvious
- Foreign Languages – environment trends in other countries
- Philosophy – Ethics of resource consumption and “fair share”
- See www.aashe.org/dans for resources and contact for partnerships



All disciplines can teach about green design if we help them – more examples


- Statistics and Math – Monitoring the impacts of green
- Economics, accounting and finance – Full cost accounting, life cycle costs, accounting for externalities
- Technical programs – Solar/wind/geothermal/conservation/green construction
- Humanities – the arts creating the culture of sustainability
- Faculty development is key and easy! You can help!
- See www.aashe.org/dans



www.playagreaterpart.org

Imagine a country where all college students get credit for helping to solve our societal problems through their academic assignments.






**Set up your own
"Play A Greater Part"**


**Academic learning combined with
real life problem solving for
sustainability in all disciplines and as
degree core.**

**Students can make your programs
larger and more successful!
Build their self concepts too!**




**Sustainable Living Practices –
Higher Ed Leading the Way**

- Presidential Taskforce on Sustainability – ACPA
<http://www.myacpa.org/task-force/sustainability/> ,
including:
 1. learning outcomes,
 2. sustainable living campaigns,
 3. first year experience and freshman pledge,
 4. orientation and campus maps,
 5. film series and sustainability media festivals,
 6. 2 pages of campus activities




**HE Sustainability Examples
more at www.aashe.org Annual Digest**

- Systemic integration
 - University of Florida
 - Georgia Tech
 - University of North Carolina
 - University of British Columbia
 - Arizona State
 - Lane Community College
 - Ball State
- Transportation
 - UC Boulder




HE Sustainability Examples
more at www.aashe.org Annual Digest

- Green Computing
 - Michigan State
- Institutionalization in job descriptions and performance reviews
 - Cornell
 - Arizona State University




HE Sustainability Examples
more at www.aashe.org Annual Digest

- Energy Conservation, Renewable Energies & Climate Change
 - LACCD
 - SUNY Buffalo
 - Carleton
 - University of Minnesota Morris
 - South New Hampshire
 - Middlebury
 - UC Santa Cruz
 - So many others....




HE Sustainability Examples
more at www.aashe.org Annual Digest

- Curriculum
 - Northern Arizona University
 - University of Georgia
 - Comm. Colleges – many programs in energy conservation and renewables
- Food
 - University of Montana
 - Yale




HE Sustainability Examples
more at www.aashe.org Annual Digest

- Green Building
 - University of Washington
 - South Carolina universities
 - Presidents' Climate Commitment
- Socially and Environmentally Responsible Purchasing
 - Rutgers
 - Stanford
 - OCC



Resources: Education in renewable energies and energy management

1. Consortium for Education for Renewable Energies Technologies – www.ceret.us
 - Online courses and certificate
 - AET 2400 – energy audits as student projects!
 - Downloadable resources
 - Professional development
 - Funded by National Science Foundation
2. Interstate Renewable Energy Council – www.irecusa.org
 - ISP and NABCEP Standards
 - Education directory



More Organizations and resources to assist you:

- Second Nature – www.secondnature.org
- Grey Pinstripes for **business schools** through the World Resources Institute and Aspen Institute - <http://www.beyondgreypinstripes.org/>
- Green Schools Listserv – almost instantaneous answers to your specific questions - send mail to LISTSERV@LISTSERV.BROWN.EDU with the command (paste it!): SUBSCRIBE GRNSCH-L

Lessons learned:


- 1) Teach/learn efficacy; tell stories of “normal” people making a difference
- 2) Teach/learn systems thinking and change agent skills
- 3) Use the motivating and high credibility voices of the following sectors:
 - 1) higher education,
 - 2) youth and, for some communities,
 - 3) faith

The higher education community as a living lab for sustainability oriented practices and skill building.

Providing opportunities to practice behavior changes
Experiment there

Building values, behaviors, and identities

A community of learners.
 A community of real life problem solvers.



K-12 Sector – would benefit from more collaborations with you

- A point of contact with the community
- National Assoc. of Independent Schools
- U.S. Partnership K-12 Summit – over 20 national K-12 associations
- Sustainability Standards
- Many stellar programs that need to become the norm:
 - e.g. Facing the Future, Green Schools



Possibilities

- 1) Engage with your local schools districts. (Get more cooperation by pointing to the national precedents)
- 2) Have AESP connect with ~1000 community colleges via AACC Sustainability Taskforce, Presidents' who have signed the Climate Commitment, HEASC and DANS for you
- 3) Work with college faculty to create the **financing models**, the technologies, and the educational programs



Possibilities

- 4) Work with U.S. Partnership, Facebook and others to help shift the behavioral and institutional norms. Go beyond the traditional.
- 5) Help inform policy so energy efficiency and renewable energies become as **reasonable and convenient as ff.**
- 6) Work with education to hold community forums
- 7) Utilize the media – get free coverage if the budget won't cover it!



Possibilities - recruitment

- 1) Get on or visit college advisory committees
- 2) Talk to the faculty, not just the placement office
- 3) Offer internships, even unpaid ones
- 4) Support faculty development
- 5) Use the websites where youth go

Careers in Energy and Sustainability

- AASHE – www.aashe.org
- Green jobs on Monster - www.monstertrak.monster.com/greencareers_guide/index.html
- Association of Energy Engineers – www.aeecenter.org
- <http://www.sustainablebusiness.com> and click on "Green Dream Jobs"
- <http://www.homepower.com/resources/jobs.cfm>
- <http://www.greenbiz.com> and click on "Job Link"
- <http://www.EnvironmentalCareer.com>
- <http://www.idealists.org>
- www.ecojobs.com
- www.eco.org
- www.greenjobs.com
- Renewable Energy Access Jobs
www.renewableenergyvaccess.com/rea/jobs/home

What You Can Do – Political Activities are Crucial!!!

Local Level

Take it to your community – do a community sustainability/energy plan.


Federal Level

*Take it to your elected representatives.
Engage in energy, climate change, and sustainability policy. **Can't advocate, then help educate!***

If you feel overwhelmed or unsure about doing something different, you are normal. Keep moving forward!!


Doing nothing to shift societal norms is a destructive decision.

There are people you can share your knowledge with and also talk to/email about how to create success on shifting behaviors: Green Schools listserv, K-12 listserv, Community College monthly calls




Additional resources
besides www.aashe.org and
www.heasc.net/sustainablefuture

And



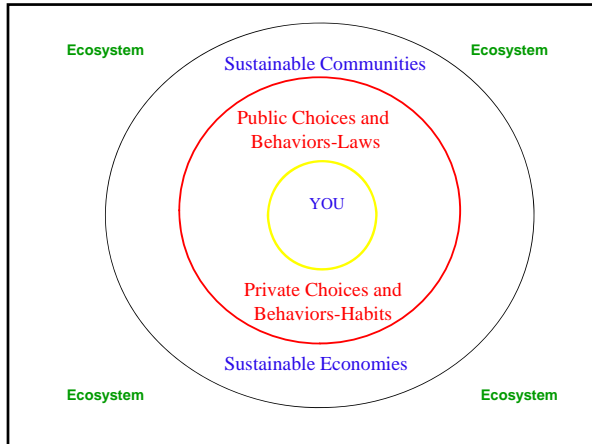
Additional Resources

- Alliance to Save Energy – <http://www.ase.org/> has a green schools program in CA that they want to expand
- Building solar air panels – do it yourselfer market www.oaklandcc.edu/EST
- American Solar Energy Society – www.ases.org
- American Wind Energy Association – www.awea.org



Additional Resources

1. Greener Buildings News at www.greenbiz.com
2. Energy Star – U.S. Dept of Energy <http://www.energystar.gov>
3. Energy Efficiency and Renewable Energies – <http://www.eere.energy.gov/>
4. The Intergovernmental Panel on Climate Change - <http://www.ipcc.ch/>
5. Rocky Mountain Institute Lovins - www.rmi.org
6. National Renewable Energy Labs – www.nrel.gov



Conclusions

1. The public is not educated enough about the energy and sustainability issues before us.
2. We need sustainability literacy for ALL.
3. You are creating the future with your daily decisions.
4. You can collaborate more with others to play a larger role in education and action for a sustainable future.

The Power of What You Do

- *We can choose a sustainable future*





Congratulations for all you have
done!

Congratulations for all you will do in the
future.

Let your enthusiasm show!

For more information,
contact me at dgrowe@oaklandcc.edu
