

# **Role of Universities in Communicating and Inspiring Action for Environmental Sustainability**

# SUSTAINABILITY – CRITICAL CHALLENGE

- **Carbon Dioxide Emissions / Global Warming**
- **Preservation of Essential Natural Resources**
  - Energy Production
  - Food Supply
  - Quality of Life Preservation
- **Healthy Environment**
  - Air Pollution
  - Water

# ENERGY CHALLENGE

- **World population growing by about 1 billion plus each decade**
- **World Energy Council, September 2007:**
  - CO<sub>2</sub> transportation emissions, more than doubled since 1971.
  - 80% increase , for electricity production in same period.
  - Fossil fuels, source of 85% of world's primary energy needs through first half of century.
- **“Bad news is that policies are not generally in place that stanch the growth of emissions” (World Energy Council)**
- **UN Intergovernmental Panel on Climate Change Reports document impacts on fresh water, food production, ecosystems, health, etc.**

## **AN OLD CONCEPT, BUT NEW PROGRESS?**

**“The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired in value.”**

(Theodore Roosevelt, the New Nationalism, 1910)

**“Now this is not the end. It is not even the beginning of the end, but it is, perhaps, the end of the beginning.”**

(Winston Churchill, 1942)

## EDUCATION, A CRITICAL COMPONENT

- **Natural Edge Project in “Natural Advantage of Nation (vol 7)” observed:**
  - “What is lacking ... to achieve sustainable development is reliable information, and dissemination of that information to empower people ... to act. ...(W)e all need critical literacies to be able to most effectively and wisely use such information.”
  - “The crisis we face is first and foremost one of the mind, perceptions, and values; hence, it is a challenge to those institutions presuming to shape minds, perceptions, and values.” (David Orr)
  - UNESCO proclaimed decade of education in sustainable development.

## MESSAGE: SUSTAINABILITY CURRICULUM

- **Formal Classroom**
  - New courses, majors, sub-specialization
  - Cross-disciplinary courses and programs
  - Integrated into existing curriculum
- **Informal (Outside Classroom)**
  - Support for student initiated sustainability groups
  - Internships, conferences, and projects
  - Development of future sustainability advocates and leaders
- **Post Graduate Courses / Seminars / Workshops**

## CRITICAL NEED FOR INFORMATION: RESEARCH

- **Objective and authoritative information source**
- **Rigorous and innovative studies**
- **Cross-disciplinary**
- **Translational into practice**
- **Foundation for governmental, civil society, and corporate policies**

# PROMOTING SUSTAINABILITY BEYOND THE CAMPUS

## **Educating Society About the Rewards and Costs of a Sustainable Agenda**

- **University leadership in promoting broad public understanding**
  - Consequence of failure to act is unacceptable
  - Technology alone will not achieve the objective
  - Behavioural change is necessary
  - Substantial investment/redirection of resources is essential
- **University support in assisting government to address complex scientific, engineering, economic, legal, philosophical, and political issues**

# **“WALK THE TALK” -- CAMPUS IS THE LIVING MESSAGE**

- **Plan, build and operate sustainable campuses**
- **Implement best practice and incorporate innovative sustainable design in campus facilities**
- **Examine university operating procedures and change processes that do not support sustainable principles**

# NETWORKING – THE POWER OF THE COLLECTIVE

- **Education**
- **Research**
- **Government / Civil Society / Public**

# CONCLUSION