



# **The UN Decade of Education for Sustainable Development**

**Education for Sustainable Development**

**Toronto Networking Forum**

Sept. 21, 2006

**David V. J. Bell**

Chair of LSF ; Chair of PDP Inc.

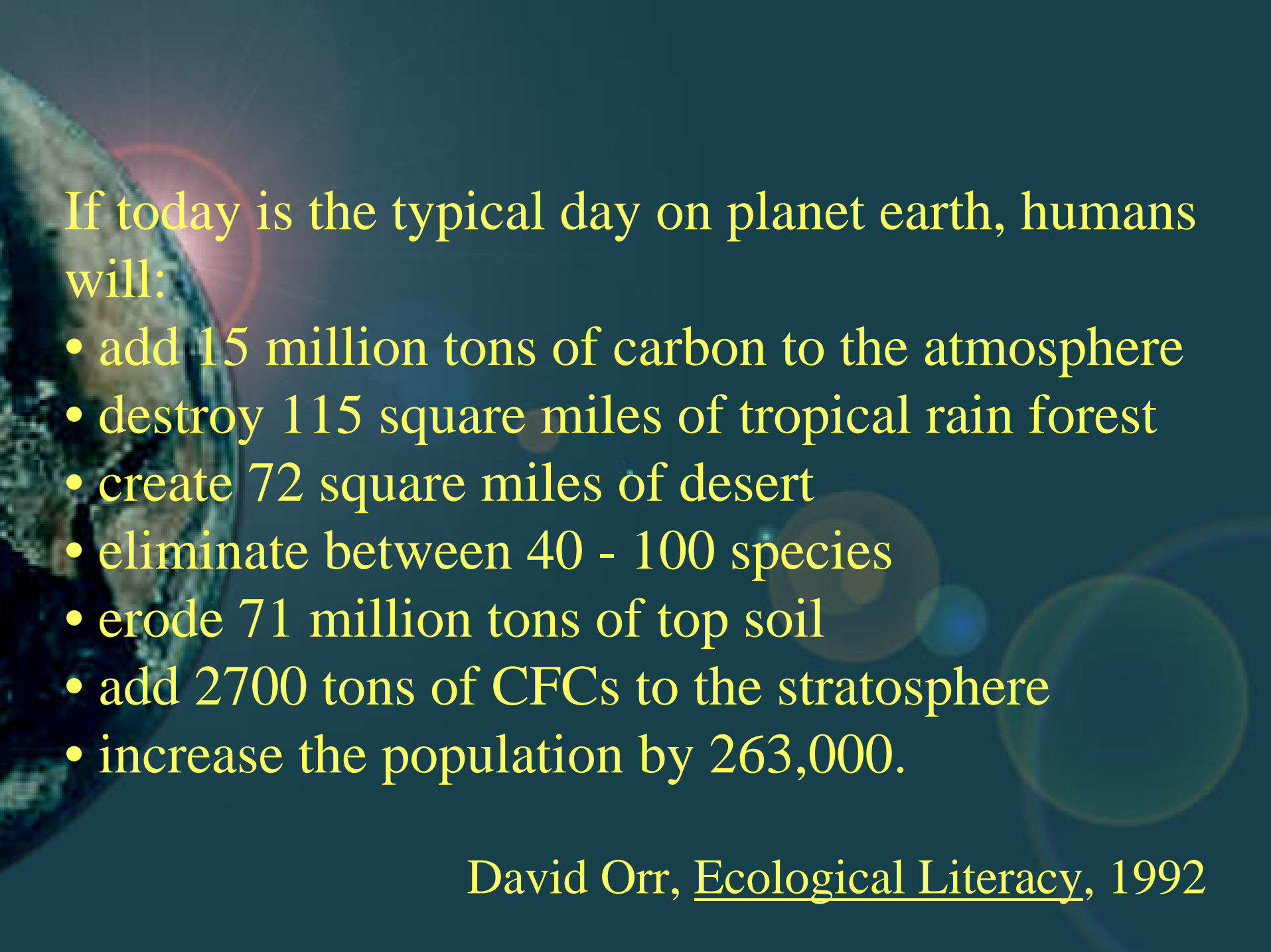


# **Sustainability: A New Idea?**

- **"We don't need to invent a sustainable world -- that's been done already."**

Janine Benyus, author of [Biomimickry: Innovation Inspired by Nature](#)

- **Problem is that we are on a path that is clearly unsustainable**



If today is the typical day on planet earth, humans will:

- add 15 million tons of carbon to the atmosphere
- destroy 115 square miles of tropical rain forest
- create 72 square miles of desert
- eliminate between 40 - 100 species
- erode 71 million tons of top soil
- add 2700 tons of CFCs to the stratosphere
- increase the population by 263,000.

David Orr, Ecological Literacy, 1992



Over his or her lifetime, a typical Canadian will:

- Use 125,000,000 litres of water
- consume the equivalent of 600,000 cubic meters of natural gas, 1,100,000 kgs of coal, or 575,000 litres of crude oil
- travel 700,000 kms in motor vehicles
- generate 40,000 kgs of garbage
- produce 1,300,000 kgs of greenhouse gases
- use 7,000+ kgs of pesticides & fertilizers

David Boyd, Sustainability Within a Generation: A New Vision for Canada, 2004



# The “Fraying Web of Life”

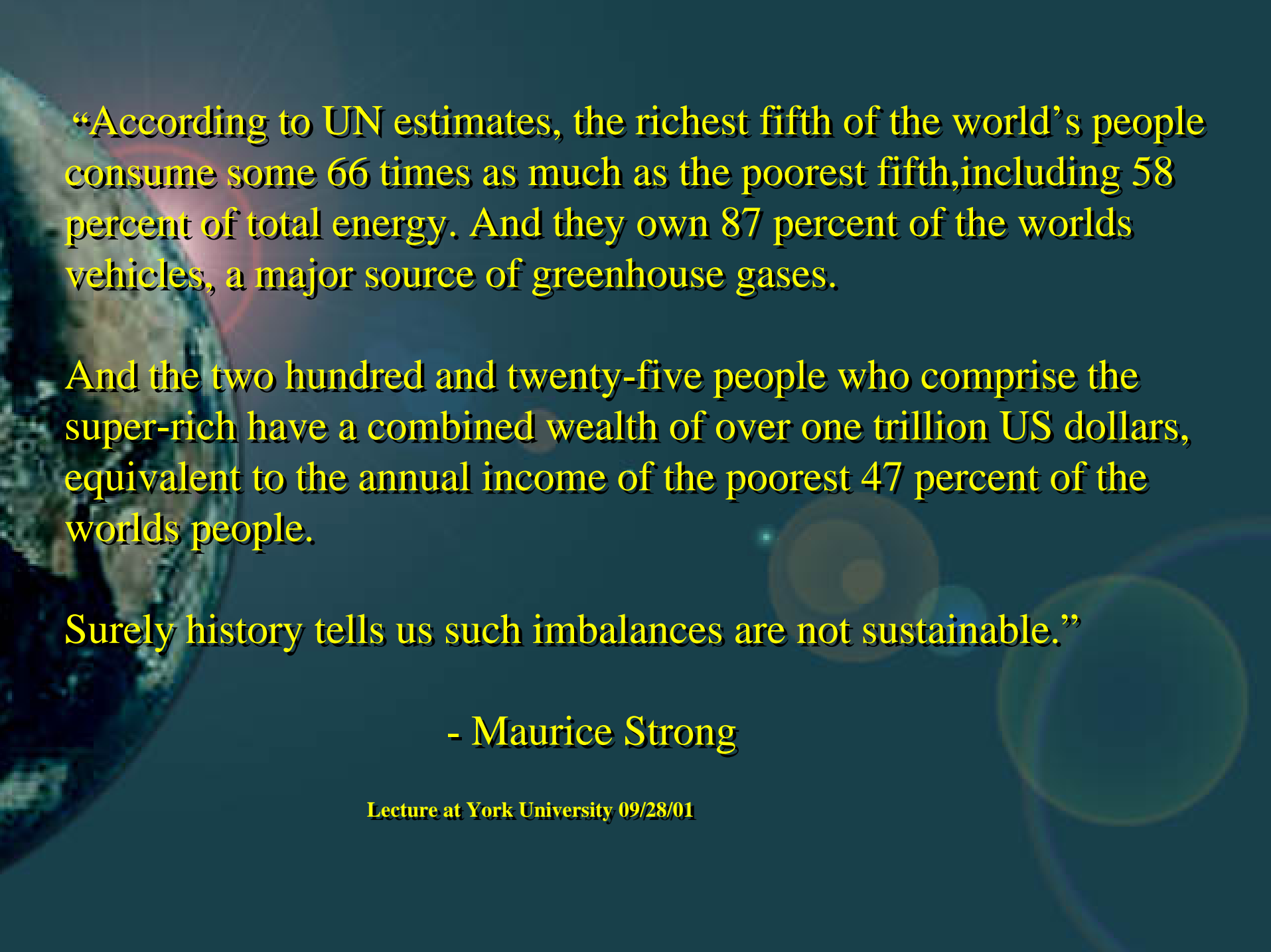
World Resources Institute “People and Ecosystems” 2001 Report

- ◆ most of the “life support systems” on the planet are being degraded
- ◆ our appropriation of natural capital is threatening the well-being and life chances of future generations
- ◆ we have failed to value -- and protect -- the “natural services” on which all life depends



# **Millennium Ecosystem Assessment**

- humans have made unprecedented changes to ecosystems in recent decades to meet growing demands for food, freshwater, fiber and energy
- we are running out of time to regain a sustainable balance between human populations and the life support system



“According to UN estimates, the richest fifth of the world’s people consume some 66 times as much as the poorest fifth, including 58 percent of total energy. And they own 87 percent of the world’s vehicles, a major source of greenhouse gases.

And the two hundred and twenty-five people who comprise the super-rich have a combined wealth of over one trillion US dollars, equivalent to the annual income of the poorest 47 percent of the world’s people.

Surely history tells us such imbalances are not sustainable.”

- Maurice Strong

Lecture at York University 09/28/01



# Global Trends (NRCan “Scan”)

- **People & Society**

- Pop. Growing but more slowly
- Flight from rural to urban
- Spread of infectious diseases
- Poverty decreasing but inequality still a huge problem

- **Economic**

- US growing but BRIC growing faster
- Globalization increasing (with critics)
- Consumption increasing (with caveats)
- Energy: innovation, efficiency and security

- **Environmental**

- Natural environment continues to be degraded (note MEA)
- Climate changing: adaptation the next step
- Natural disasters inevitable
- Fresh water growing scarce



# Key Sustainability Issues for Canada

- *generating “genuine wealth”*
- *Improving efficiency (“Factor 10 economy”)*
  - *Shifting to clean energy*
  - *Reducing waste and pollution*
- *Protecting and conserving water*
  - *Producing healthy food*
- *Conserving, protecting and restoring Canadian nature*
  - *Building sustainable cities*
  - *Promoting global sustainability*

David Boyd, *Sustainability Within a Generation: A New Vision for Canada*, 2004



# Key Sustainability Issues for Canada

- ***Urban redesign***
- ***Freshwater management***
- ***Eco-region sustainability***
  - ***Signals and incentives***
- ***Impacts of globalization on Canada***
  - ***Unsustainable lifestyles***
- ***International engagement: poverty and SD***

***“Sustainable Development: Where Next?”***

***Horizons March 2004***



# What is to be done?

- “The pressure on ecosystems will increase globally in coming decades unless *human attitudes and actions change*”



# Looking Back 100 Years – how different things were in terms of:

- population (about 2 billion)
- global governance (relatively few countries, numerous empires)
- technologies (the automobile and the telephone just beginning to have an impact; no one even dreamed of the electronic communications we now take for granted)
- the way business and finance operated
- the miniscule “civil society sector”
- environmental awareness
  - no concept of global climate change
  - little understanding of pollution or its impacts on health
  - few concerns about biodiversity, deforestation
  - no one imagined seeing planet earth from space



# Looking Ahead 100 years: How must we change the way we live on this planet to:

- meet basic needs for food, water shelter, and energy of 10 billion people?
- stabilize the climate by reducing GHG emissions globally by more than 60%? (NRTEE target)
- Reduce proportion of the world's population living on US\$2 per day or less ( currently nearly half -- 3 billion)
- achieve a “factor 10” economy
- shift from “take-make-waste” production cycle to “cradle-to-cradle” (There's no waste in Nature)
- Achieve a more peaceful world?



# **Education for 21<sup>st</sup> Century**

## **Education for sustainability must:**

- be solution-focused and action-oriented
- teach students to think in systems terms
- Explain the fundamental inter-relationships between ecosystems and social systems
- inspire concern for the well being of fellow humans and the biosphere which makes all life possible
- encourage and promote the capacity to think and act for the future and not only for the present

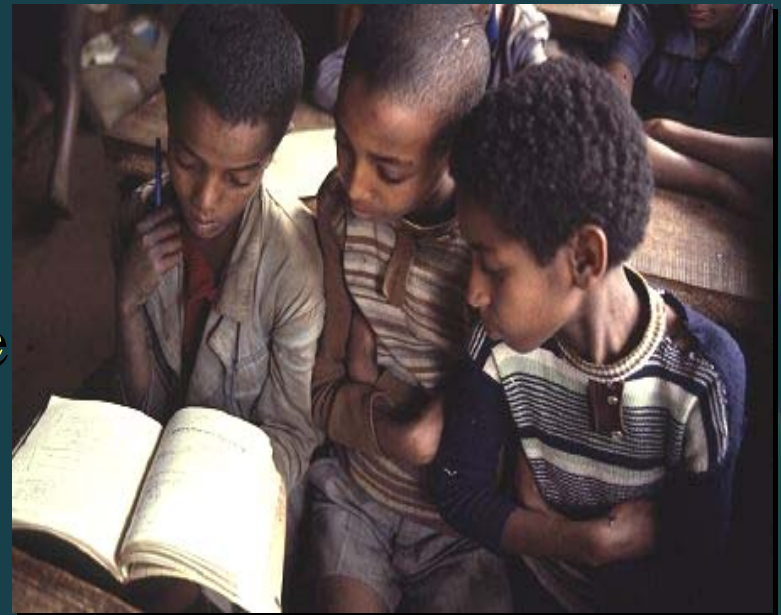
# SD Provides a Framework For Otherwise Isolated Issues



# **“Education is a key and vital element in moving sustainability forward...”**

**Report of the UN Sec. General**

- Agenda 21(Rio)
- Millennium Goals
- Earth Charter
- UN Commission for Sustainable Development (CSD)
- WSSD (Johannesburg)





# **UN Decade of Education for Sustainable Development 2005 to 2014**

- UN General Council Resolution Dec 2002
- UNESCO is the lead UN Agency
- Mainly a coordinating role
- Integrate with other Decades and programs
- Mainly up to each country / state
- Organization / institution / private sector etc.



# **The 4 Major Thrusts of ESD**

- **1 Public awareness and understanding**
- **2 Access to quality basic education**
- **3 Reorienting existing education**
- **4 Training programs for all sectors**

**Agenda 21 -92, UNESCO-96, UNCSD -98, JPOI-2002**

# Facilitating Development Through Improving Quality Education

- 100 million children ages 6 to 11 never attend school in the developing countries
- 90% of school aged are in developing/emerging nations
- Millions more are “under-educated” in both the South and the North





## Reorienting formal ed. includes addressing

- Values
- Principles
- Perspectives
- Knowledge
- Skills
- Buildings
- Program
- Practices and Actions
- What we value and evaluate



# **Strengths Model: A Starting Point**

- No single discipline/group/teacher can do it all
- Every discipline/group/teacher can contribute something
- Some can take lead roles in reorientation

# Public Awareness: an Emerging Culture of Sustainability?

- **Quality of Life redefined** (from consumption of things to relationships with people and Nature):
  - Leisure time
  - Social/family activities
  - Eco-tourism
  - Env quality (clean air, water)
  - [Note however \$500B. Spent on advertising consumption]
- **Growing education around climate change**
  - The 21<sup>st</sup> century equivalent to recycling/blue box?
  - Will sustainability awareness hit a “tipping point” (cf. smoking)
- **Environment (esp linked with health) rising issue**



# **How do we get there from here?**

**If you are thinking a year ahead, sow seed,**

**If you are thinking ten years ahead, plant a tree.**

**If you are thinking one hundred years ahead, educate the people.**

**Kuan Tzu Chinese Poet, c. 500 B.C.**

## The Aboriginal Thanksgiving Address

Finally, we acknowledge one another, female and male. We give greetings and thanks that we have this opportunity to spend some time together.

We turn our minds to our ancestors and our Elders. You are the carriers of knowledge, of our history. We acknowledge the adults among us. You represent the bridge between the past and the future.

We also acknowledge our youth and children. It is to you that we will pass on the responsibilities we now carry. Soon, you will take our place in facing the challenges of life. Soon, you will carry the burden of your people.

Do not forget the ways of the past as you move toward the future.

Remember that we are to walk softly on our sacred Mother, the Earth, for we walk on the faces of the unborn, those who have yet to rise and take up the challenges of existence.

We must consider the effects our actions will have on their ability to live a good life.