



# Higher Education's Role in Creating a Sustainable Future

Presentation to the Northwest Commission on Colleges and Universities Annual Meeting -- February 21, 2008

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## Agenda for this afternoon's presentation

- Origins of “sustainability” and how this term is evolving.
- How sustainability is being embraced in the business sector and implications for post-secondary education.
- How sustainability is being embraced in higher education, nationally, institutionally, and through inter-institutional and community partnerships.
- Your perspectives!



## Part I: “Sustainability”

-  An aspiration or ideal.
-  An evolving set of practices.
-  A rapidly growing body of research and scholarship.
-  A lens through which we can view the world, analyze and reflect on our lifestyles, and initiate action.



# Aspirations on the world stage 1945 – 2000

- Post World War II - Peace
- 1950's - Freedom
- 1960's - Participatory democracies
- 1960's - Development
- 1970's - Environment (1972 UN Conference)
  - World Commission on Environment & Development established in 1982; “Brundtland Report” in 1987.



## Earth as spaceship...

We travel together, passengers on a little space ship, dependent on its vulnerable reserves of air and soil; all committed for our safety to its security and peace; preserved from annihilation only by the care, the work, and I will say, the love we give our fragile craft. We cannot maintain it half fortunate, half miserable, half confident, half despairing, half slave to the ancient enemies of man, half free in a liberation of resources undreamed of until this day. No craft, no crew can travel with such vast contradictions. On their resolution depends the survival of us all.

—Adlai E. Stevenson II, 1965



***“We are a ship’s company on a small ship.”***

**-- Barbara Ward, British economist and writer**



# **Sustainable development was defined for the first time as:**

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

Gro Bruntland's definition  
of sustainable development

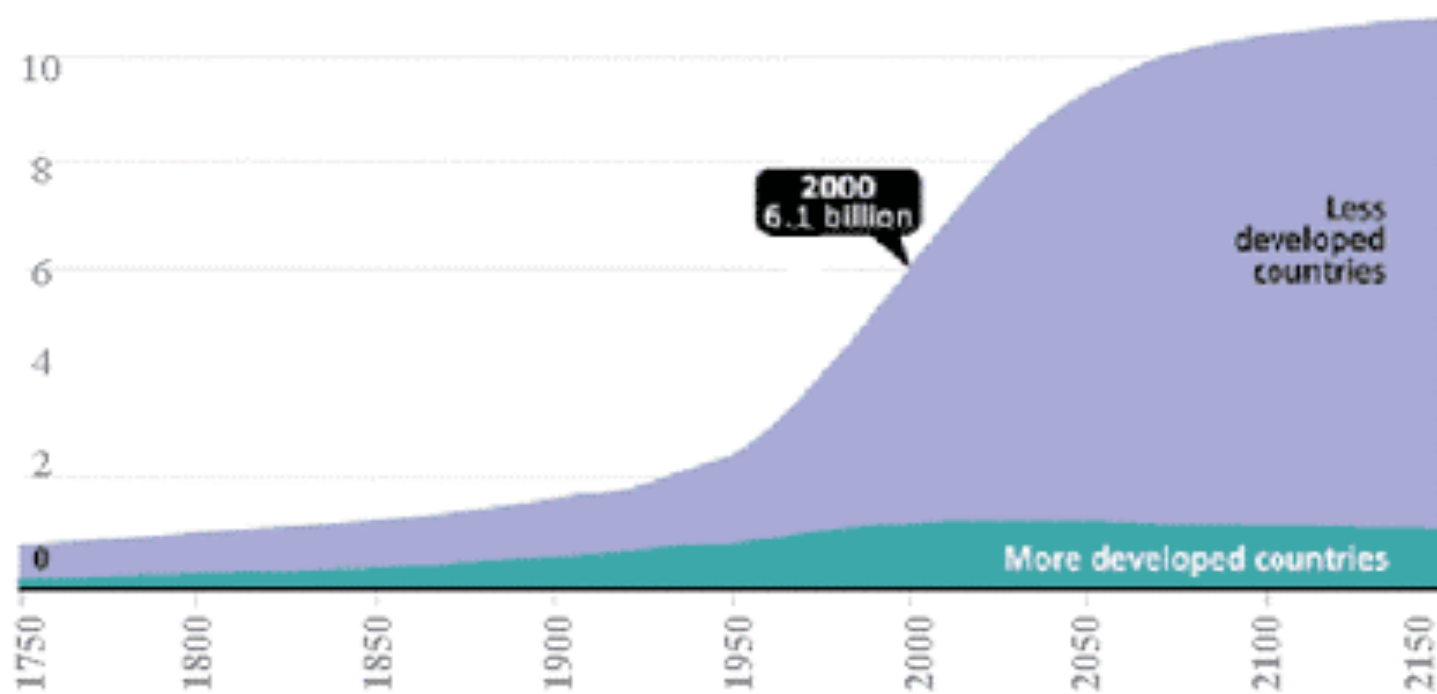
*World Commission on Environment and Development. (1987).*

*Our Common Future.*

*England: Oxford University Press.*

## World Population Growth 1750–2150

Population (in billions)



Source: United Nations, *World Population Prospects, The 1998 Revision*; and estimates by the Population Reference Bureau

# Underweight Children



There are no territories without some underweight children living there. The percentage of underweight children can be as low as 1%, as it is in Chile and Japan.

Half of all children under the age of 5 years old that are underweight live in Southern Asia. Almost half of all children under 5 in Bangladesh, Nepal and India are underweight.

Southeastern Africa, Asia Pacific, Northern Africa and Eastern Asia are also home to relatively large numbers of underweight children. Within these regions the territories with the largest populations of underweight children are: Ethiopia, Indonesia, Nigeria and China.

Territory size shows the proportion of all underweight children in the world that live there.



Land area

#### Technical notes

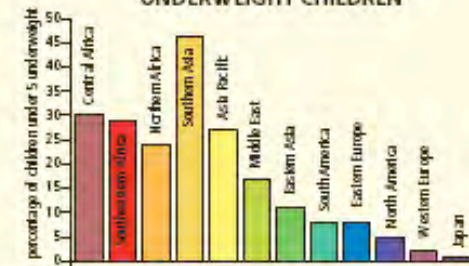
- Data are from the United Nations Development Programme's 2004 Human Development Report.
- \*Population under five years old is assumed to be a fixed proportion of the under 15 population.
- See website for further information.

### HIGHEST PERCENTAGES OF UNDERWEIGHT CHILDREN

Rank	Territory	Value	Rank	Territory	Value
1	Bangladesh	48	10	Lao P Dem Republic	40
2	Nepal	48	12	Pakistan	38
3	India	47	13	Nigeria	36
3	Ethiopia	47	14	Myanmar	35
5	Yemen	46	14	Papua New Guinea	35
7	Burundi	45	16	Burkina Faso	34
6	Cambodia	45	17	Mali	33
8	Eritrea	44	17	Madagascar	33
9	Timor-Leste	43	17	Viet Nam	33
10	Niger	40	20	Mauritania	32

percentage of children aged under 5 year old, who are underweight\*

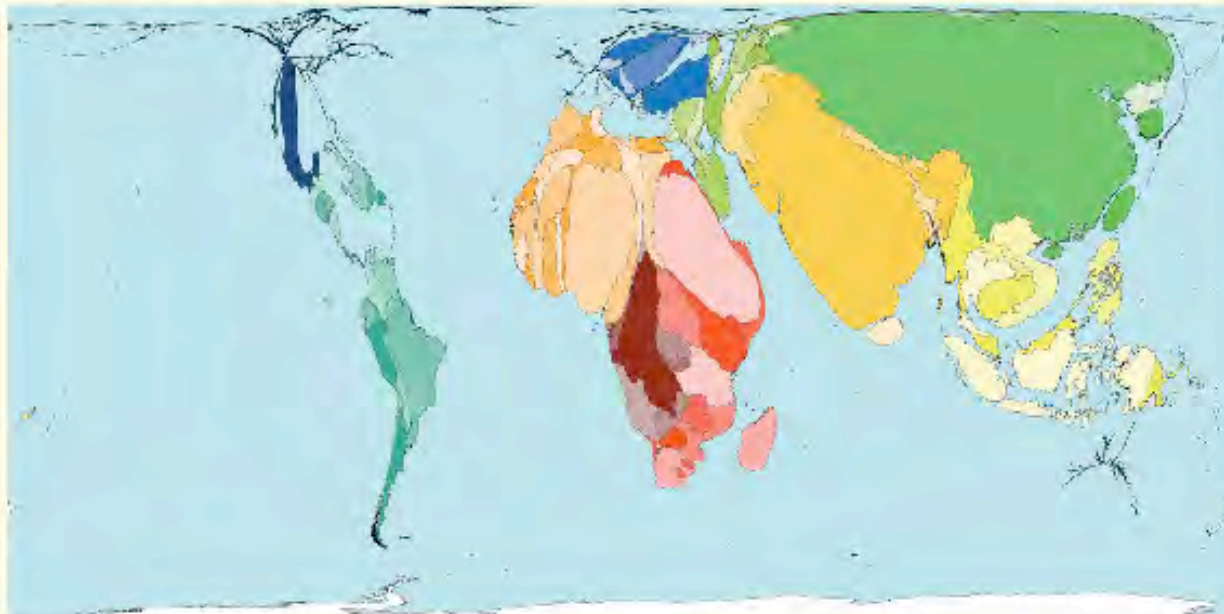
### UNDERWEIGHT CHILDREN



*“Poor nutrition is implicated in more than half of all child deaths worldwide - a proportion unmatched by any infectious disease since the Black Death.”*

Jean-Louis Sarbib, 2006

# Poor Water



Drinking water is essential to live, but dirty drinking water is also a major cause of disease. Whilst most people living in Western Europe can access safe water, only 50% of people living in Central Africa can do this.

The largest population without access to safe tap water is in China: that is 324 million people, or 25% of the population. In a quarter of all territories more than a quarter of the population is without access to safe water. Worldwide 18% of people have no safe drinking water.

Safer water can be obtained by treating water, collecting it from a spring, or pumping it up from groundwater.

Territory size shows the proportion of all people without reliable access to safe water that live there.



#### Technical notes

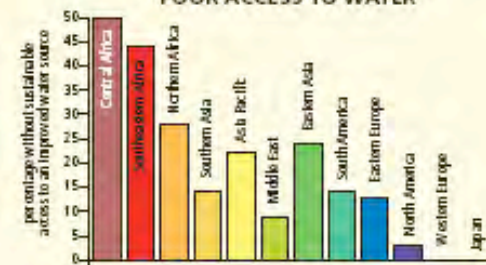
- Data are from the United Nations Development Programme's 2004 Human Development Report.
- \*In 40 territories less than 1% of population has not got a reliable source of safe drinking water.
- Poor water is water that is either not safe or is unreliable.
- See website for further information.

## LEAST AND GREATER ACCESS TO SAFE DRINKING WATER

Rank	Territory	Value	Rank	Territory	Value
1	Ethiopia	76	151	Bahamas	3
2	Chad	73	153	Albania	3
3	Cambodia	70	153	Greenland	3
4	Mauritania	63	154	Ukraine	2
4	Lao People's Dem Republic	63	154	Saint Lucia	2
6	Angola	62	154	Uruguay	2
7	Oman	61	154	Saint Kitts & Nevis	2
8	Rwanda	59	158	Russian Federation	1
9	Burkina Faso	58	158	Samoa	1
9	Papua New Guinea	58	158	Hungary	1

percentage of population without sustainable access to an improved water source 2000\*

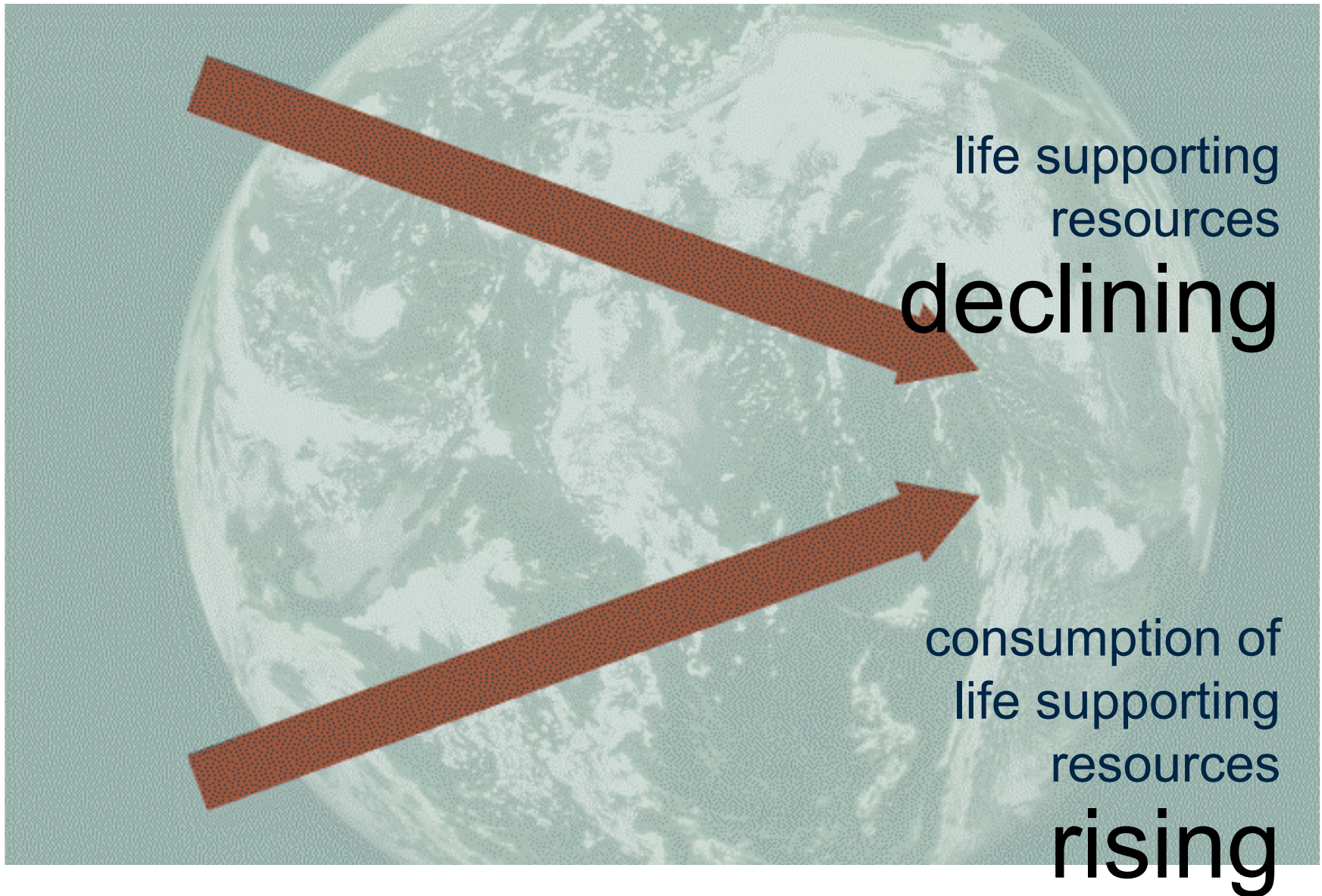
## POOR ACCESS TO WATER

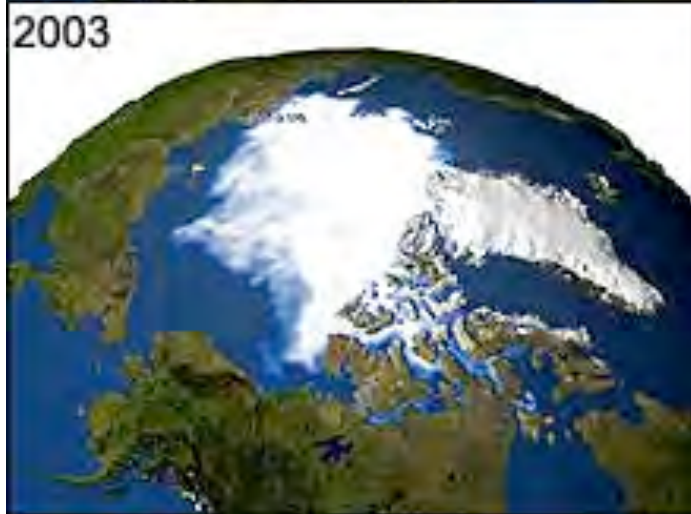
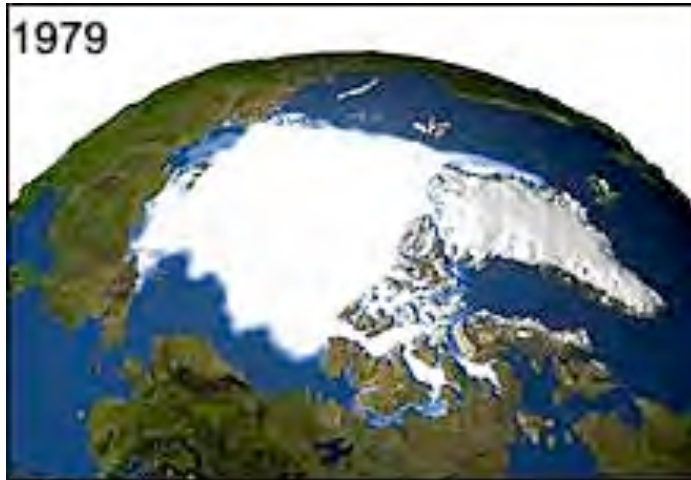


*"It is the cause of debilitating diseases for the majority of children. That is how serious a lack of sanitation and clean water is."*

Hans Spruijt, 2004

# Global Perspective





Jewel Samad / AFP file

# Regional Water

2100

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2050

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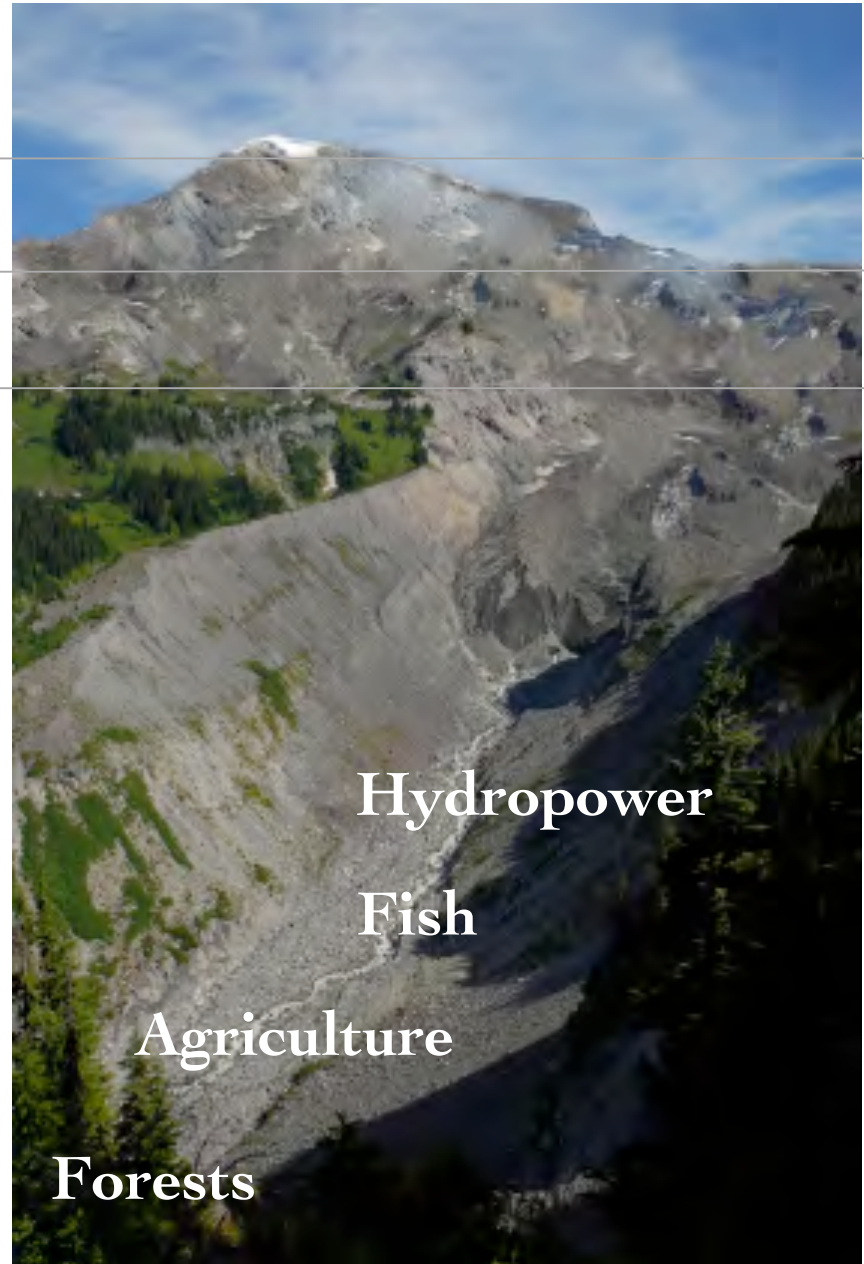
2007

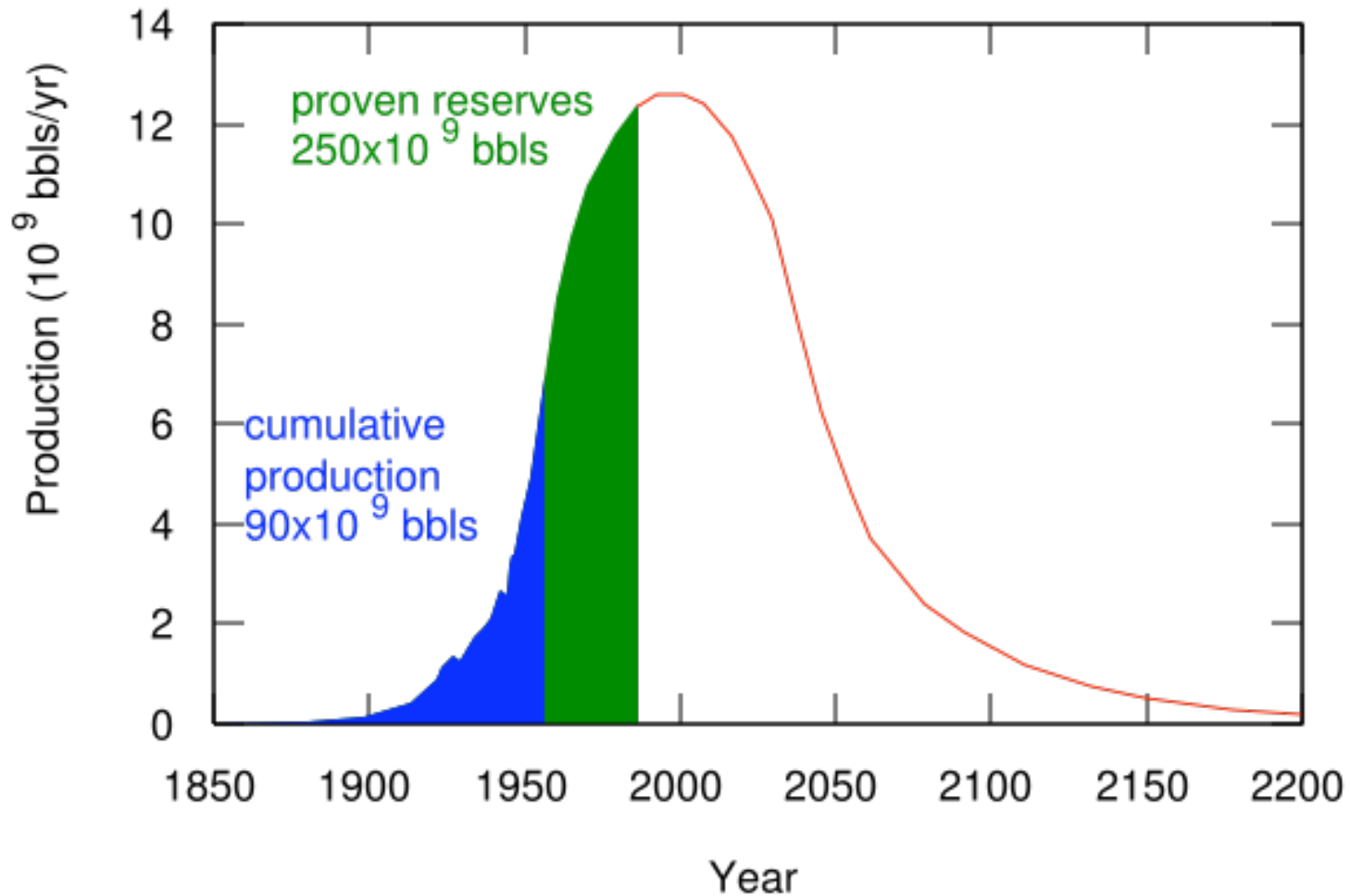
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Scientists predict the snowpack in Pacific Northwest could decline by half by 2050.

And by over 80% in this century.

Our power systems, salmon, farms and forests, all depend on snowpack – not to mention our municipal water supplies.





**The Peak Oil Curve for the World Oil Supply**  
“Hubbert’s Peak” (M. King Hubbert, 1974)

An aerial photograph of a lush green landscape. A winding path of white flowers, possibly cherry blossoms, cuts through the dense green foliage. The path starts from the bottom left and curves towards the top right. The overall scene is vibrant and natural.

# The New York Times Magazine

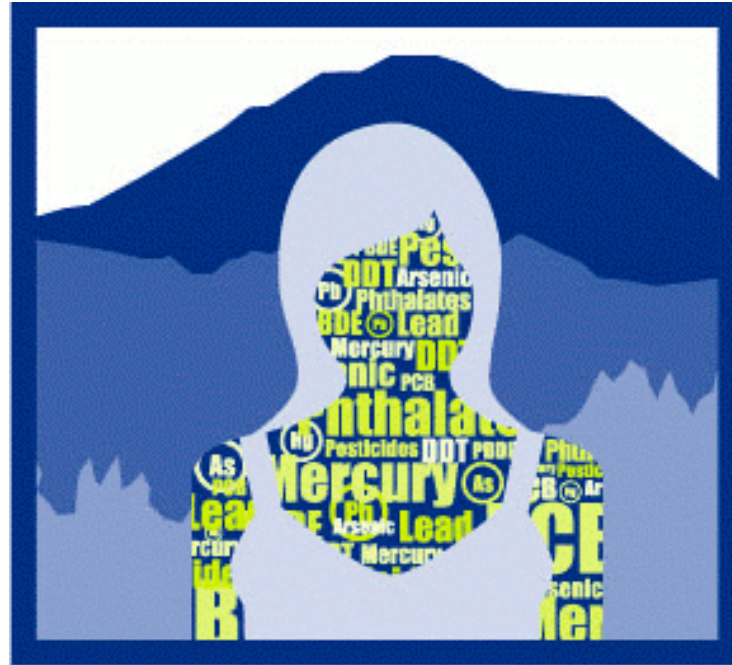
APRIL 15, 2007 / SECTION 6

## The Greening of Geopolitics

How can America regain its international stature? By taking the lead in alternative energy and environmentalism.

By **Thomas L. Friedman**

# Pollution in People



## A Study of Toxic Chemicals in Washingtonians

A project of the Toxic-Free Legacy Coalition:

Breast Cancer Fund, Healthy Building Network, People For Puget Sound, Washington Physicians for Social Responsibility, Washington State Nurses Association, Washington Toxics Coalition, WashPIRG, and more than 40 other organizations working together to eliminate persistent toxic chemicals in Washington State.





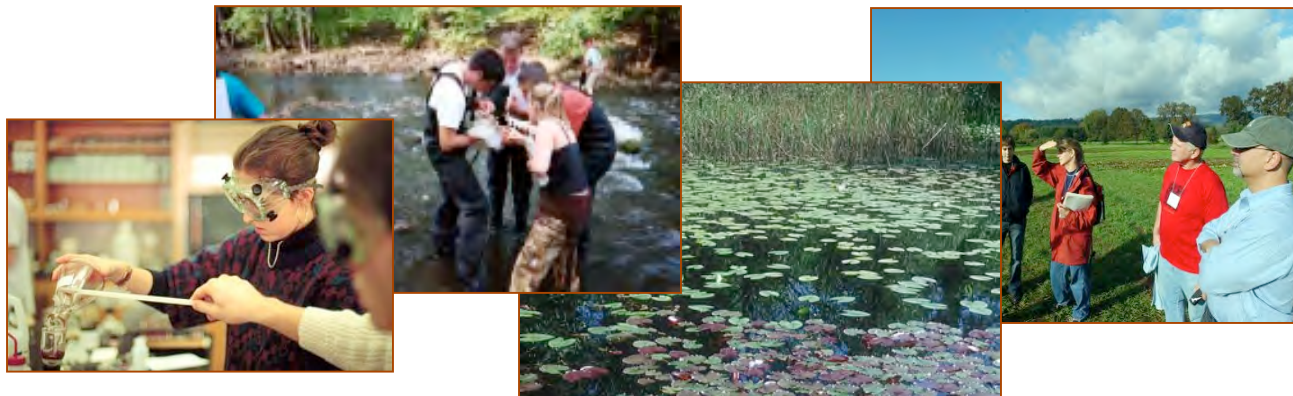
# Why sustainability now?

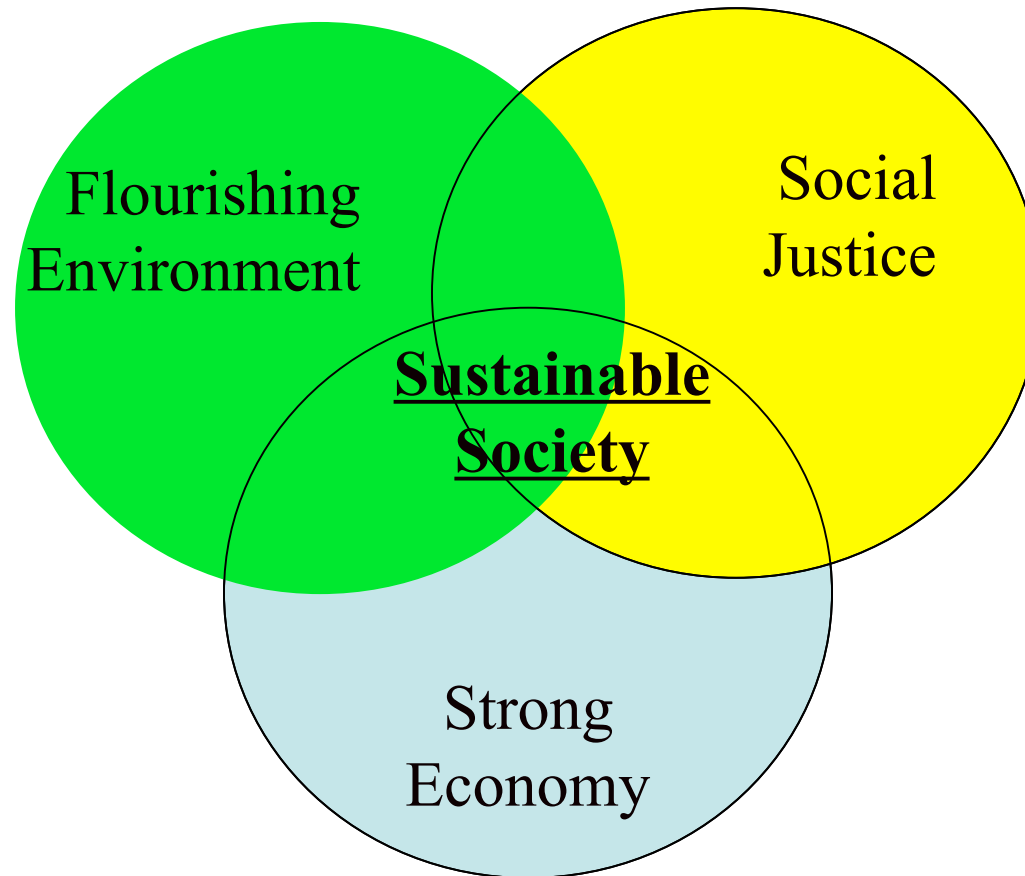
We are the first generation capable of determining the habitability of the planet for humans and other species...and yet we also live in a time of enormous capacity and resourcefulness...



# 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.





The Three Components of Sustainable Development  
**What businesses call “The Triple Bottom Line”**