

XV We are losing the war to save the planet

small victories - but we must turn the tide

Change direction ONLY POSS. entire deconstruction
90% Lemay - 83% Buddhists

Books - trying to give shared vision of the future to the
Enviro-Community

XVII ecology and economics - disciplines that start
with contrasting premises.

XVIII People appear hungry for a vision.

We have to change the system - personal changes won't be enough.

VIII SYL - Stanford - Earth Systems program

1543 - Began Copernican Change of Worldview - Revolution in
which we need today only entire Thinking

5 similar change in worldview RE - home

4) Evidence - The Economy is in Conflict with the earth's Natural Systems.
Challenge Beat the Reaper Renewable before enviro
decline undermines economic advances.

MANY EARLIER CIVILIZATIONS

4) Larger Economy Becomes - The more Destructive its Incompatibility with
LARGER?

5) Like Copernican - Now we must realize that the
economy is not the center of our world.

5) The Circle - NATURE sees things in cycles - Why you're
gap between ecologists & economists could not be wider. linear

700% Economic Growth since 1950 - in my lifetime in 50 yrs

6 - Ecologists see market Not telling the truth

8) Need wholesale restructuring of economy to mesh w/ ecosystem
Economists must be integrated into Ecology.

2500 Economists - have endorsed Carbon Tax
FROZEN TOBIN TAX, Kyoto

7) 700% The Very Forces behind that are what undermined the
base systems. Support systems

7) Natural Systems are like endowments - The interest income
will continue sustainably as long as principal is not Degraded.

MORALITY - Why do we live - the moral imperative
Why must we deconstruction, strip away, - to construct a moral
civilization on the basis of underlying theology/principles
consistent with moral rel. to earth's evolution.

Happiness comes from doing what you know is right

8 Fisheries Range Lands Topsoil

10 Forests
Species - Red List of Threatened Species

1/8 of birds 1/4 of mammals 1/3 of fish threatened

12 CO₂ - 14 warmest years - since 1980

13 - 14 - Storms - Ice

14 Book "The Collapse of Complex Civilizations" - Is it ecology?
Conflict in some other internal dynamic

1) Sumerian Euphrates

15 - Mayan

17 China - Telescoping History 4 fold growth since 1980

17 China - if it grew to Western Standards it would consume
everything. - Paper? - No more world forests

18 Western industrial development model - Not viable for
China - Not Enough Resources.

19 Tech growth - Accelerates history - Cultures don't adapt as
quickly.

Current rate of change has no precedent.

19 Economic growth in one year exceeds all of 18

7 fold in 50 years - Dwarfs anything in history.

21 - Issue Not knowing what to do or How to do it but
whether social institutions can make changes before time
runs out.

H.G. Wells - "The Outline of History" Human history becomes more
and more a race between education and catastrophe.

- Need Copernican Shift in economic mindset.

Economic Deficit - borrow from each other

Ecological Deficit - " " future generations

Progress can continue - in a Redesigned Economy.

How? All decision makers guided by Market signals

Q What is cost of Failing today.

27 - Ice melting - 14 warmest years - since 1866

28 - CO₂ 2 Causes - Deforestation - 1/4 of Forests easily
store 20 times as much carbon as land in crops.

- 29 Forest area increasing in Northern Hemisphere
 30 CO₂ up 1/3 - May double by end of century
 42% Arctic Sea Ice Gone
 34 Cut Income tax, Make up with Carbon Tax
 37 - Questions of Intergenerational responsibility that humans

never before faced.
 45 480 million people benighted Now by water that belongs to our children.
 52 Govts cannot OTHER NORTON BOOKS
 cooperate in fisheries BY LESTER R. BROWN
 management
 52 The mercury in lakes & Fish Comes from The coal fired plants
 to CO₂ - And The acid rain - sulfur dioxide from coal.

90% of
 oceanic
 fish rely on coastal areas for spawning
 53 Drift
 nets that
 go around the
 world
 many
 times
 over.
 - We can
 "wipe
 fish out"
 57 - Forests are systems for transporting water inland to
 interior of land masses.
 58
 1/10 of earth
 is cropland
 2/3 of earth
 is
 62 Thin
 mantle of
 topsoil -
 measured in
 inches - is the
 foundation of Civilization
 Web site: <www.earth-policy.org>
 63 - The Long Term Accumulation of Topsoil has been reversed.
 64 Centuries to form an inch of Topsoil
 68 Species Loss - Genetic Information
 69 - many indicators of Environmental decline
 70 Primates - most endangered mammals 97% of Bonobos destroyed
 3000 Left.

- 1 - If we cannot stabilize climate and population there is
 NO ecosystem we could save. - So THIS is more important than
 park acquisition - or land preservation
 EXTINCTION - 1000% at least - greater than Background Rate.
 But - Nobody Knows how many plants & animals there are
 72 The Synergies of degradation can accelerate the process.
 Like the melt - then ground absorbs more & heats even faster.
 73 Nature Has NO Reset Button
 77 Small Chance an economist or corp. Not Trained in Ecology?
 Economy ECO-ECONOMY World Develop
 Can ultimately progress only if it respects laws of ecology. a sustainable
 system.
 78 Harvest can't exceed sustainable yield.

to Balance Building an Economy Religion
 must be sustained for the Earth CIRCLE
 CIRCLE NO LINEAR in life - Nature depends on cycles
 "In nature there are NO linear flow throes - where
 raw materials gain one end and garbage comes out the other
 "Waste" is another's sustenance. Our Challenge is to emulate it in
 the design of the Economy.
 Lester R. Brown

- 80 Eco Economy - New wells banned if water Table Falls.
 81 NO PRECEDENT - for transforming market driven economy into
 ecology driven economy.
 81 Require Rapid Systemic Change to succeed IN TIME
 81 POPULATION - 31 Nations (Europe/Japan) have stabilized their
 pop. - The First precondition of the
 ecoeconomy
 Denmark is the ecoeconomy leader
 82 - Must SHIFT TAXES to create Eco Economy - No hope otherwise
 We will make a world where we are a part of nature - NOT
 estranged EARTH POLICY INSTITUTE®
 Opposite - of auto based, fossil fuel burning, throw away
 economy (3)
 Will not work in long term even for the affluent 1/5 - NOT
 W. W. NORTON & COMPANY
 NEW YORK LONDON a development model
 No Linear - No Mining - Recycling industries will largely replace
 83 extractive industries
 85 Tree Plantations - Yield
 1996 - Coal Peaked - Now Dropping (7% since 19
 87 - Examples of New NEW Industries
 88 - Wind Turbine - Replace Coal Mine and oil well.

- 88 - Hempseed in Fish Farming Feed?
- 89 - Throwaway Products - Banned or Taxed out of Existence
- East + Century - Focus on Rising Water Productivity
- Next Century " on Rising Land Productivity
- 89 - Manage water at the Watershed Level.
- 90 - New Professions
- 92 - Greatest Investment opportunity in history
- 93 - Comparable to Copernican, Ag. or Industrial Revolution
- Must have ENVIRONMENTAL REVOLUTION
- Deep Down we all know it - choose death to change
- But ENVIRO REV. must be compressed into decades
- we've lost 3 decades. REV - must be driven by our
- instinct for survival.
- Only ENTHEO can stimulate this change
- Deflation Re Condition
- 94 - Pipe lines - & Elect Wires - Can still be used.
- Saved Energy is cheapest source of New energy.
- 95 - losers - Those who cling to the past
- winners - will anticipate & invest.
- 98 Nat. Gas infrastructure - easily adaptable to
- hydrogen

Copyright © 2001 by Earth Policy Institute®
 All rights reserved
 Printed in the United States of America
 First Edition

100 with Conservation - Don't Need New Power Plants

even with time of day pricing for electricity

- 100 Europe - 30% less energy per unit of output.
- The text of this book is composed in Sabon. Composition by Maggie Powell; manufacturing by the Haddon Craftsmen, Inc.
- 101 China - setting the pace for energy efficiency and CO₂ reduction
- Return on Conservation can be 30% p.y.r.
- USA gasoline fuel efficiency - dropping since 1987.
- ISBN 0-393-32193-2

102 wow

W. W. Norton & Company, Inc., 500 Fifth Avenue, New York, N.Y. 10110
 www.wwnorton.com

Bangkok All radio stations show a big dial. Then Ask people to shut off.

W. W. Norton & Company Ltd., Castle House, 75/76 Wells Street, London W1T 3QT

to watch the dial fall.

- Other Nations are getting ahead of us in this transition economies and technology
- 103 North Dakota, Kansas & Texas - Saudi Arabia of Wind Power
- 105 - Income from wind can remain in the community.
- 106 Surplus wind power - can be stored as hydrogen.

106 Farmers supply Electricity, Hydrogen - and Hemp/Cannabis, Decentralization Revolution.

- 108 - Solar SW - cheaper - JAPAN - photovoltaic roofing material.
- 116 Decentralized, small scale energy production rather than vice versa
- 117 - Inconceivable that information age economy - powered by primitive, industrial age energy system
- 118 \$700 Billion annually in damaging subsidies could be put to use for transition
- 119 Kennedy Quote - Risks of Inaction greater than risks of action.

The Economist - Must level playing field by reducing subsidies and carbon tax To Roger and Vicki Sant, who share the vision to recognize damage to the Environment.

- Do Carbon tax - Tobin Tax - must not be possible by self serving inertia of centralized vested power - & Bought by its lucky fools - Like GW - Big Corps run everything by appealing to cultural symbols & ideology.

(Lincoln Quote?)

122 our age is simply the Materials Age All Materials - Age of Excess goes through mining materials

123 - Economy Based on "The Circle" - Recycle