



The Political Economy of Sustainable Development

by Ernest Lowe

Indigo Development,
Sustainable Systems Inc.
26 Blachford Ct..
Oakland, CA 94611
510-530-6521 fax: -7498
ernielowe@indigodev.com
web: www.indigodev.com

© 2003 Ernest Lowe



Industrial Ecology is . . .

. . . an approach to managing human activity on a sustainable basis by:

- Seeking the essential integration of human systems into natural systems;
- Minimizing energy and materials usage;
- Minimizing the ecological impact of human activity to levels natural systems can sustain.



The objectives of industrial ecology:

- Ensuring acceptable quality of life for people;
- Maintaining the economic viability of systems for industry, trade and commerce
- Preserving the ecological viability of natural systems.

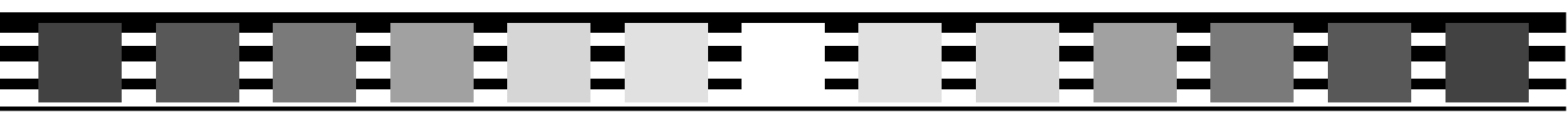


Industrial Ecology involves

- application of systems science to industrial systems,
- defining the system boundary to incorporate the natural world, and
- seeking to optimize that system.

IE applies to private sector manufacturing and service and to government policy and operations, including provision of infrastructure.

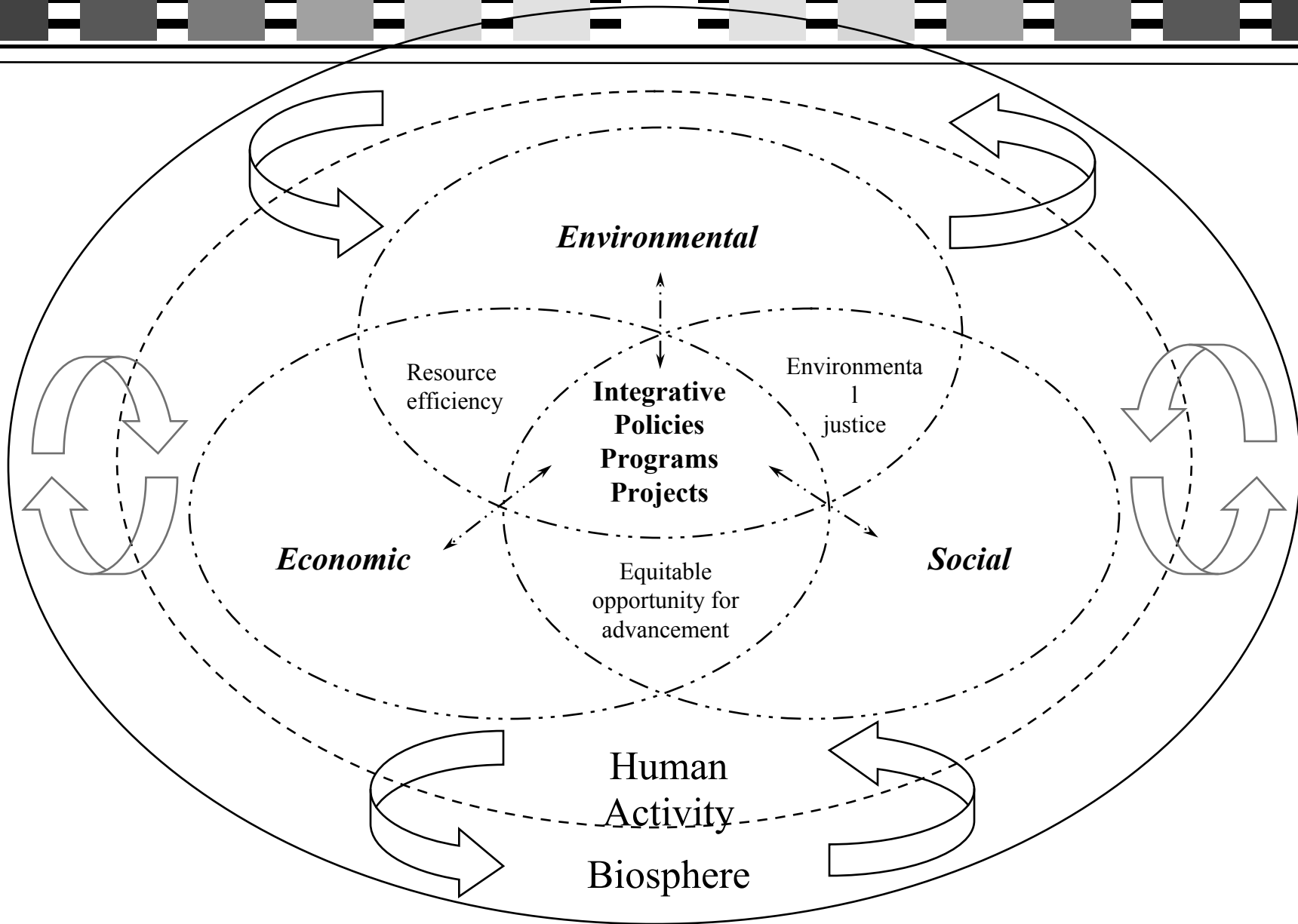
It also provides a framework for seeking the sustainability of communities, integrating concern for ecological, social, economic, & political realms.

- 
- Industrial ecology *may* be the science of sustainable development, as some claim.
 - To live up to this promise, it must study the nature of the political economy.



Sustainable Development

- Sustainable Development depends upon the recognition that companies, economies, and communities need to live off of current income.
- A business, an economy, or a community that systematically consumes its capital will eventually go bankrupt.
- This capital consists of social and environmental capital as well as economic capital.
- We are burning our capital in the present unsustainable global and national economies.

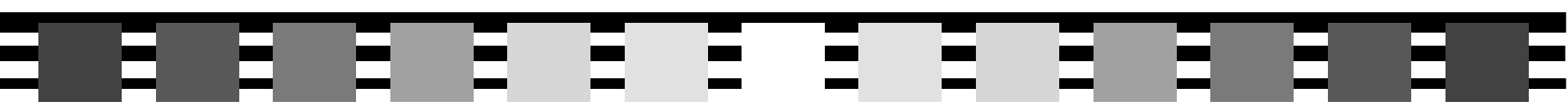


Dimensions of Sustainable Development



Political economy

- Seeks to understand the networks of power shaping behavior and action by government, business, communications, education, science. .
- Its subject is the level of the economy where the basic rules of the game are held.
- Political economic analysis is an essential and largely missing component of industrial ecology.



Political economy -- negative forces

- Sunk investment in infrastructure, plants, equipment, technology, and *identity*.
 - Automotive industry
 - Petrochemical industry
 - Pulp and paper industry;
- Systems definition and boundary setting too narrow
 - Supplying “sustainable” agriculture and forestry through genetic engineering
 - Seeking waste management rather than resource optimization.
- Government/industrial symbiosis
 - The wasting industry
 - Fossil energy policy, subsidies, R&D and wars.



Exporting our errors

- Globalization of old “solutions” --
- Auto- and truck-based transportation systems
- Large-scale, centralized fossil fuel energy
- Petrochemical-based economies
- Industrial corporate agriculture, fishing, and forestry
- Solid waste technology and infrastructure



Political economy -- positive forces

- The present self-interest of some sectors leans toward sustainability
 - Climate impacts on insurance and finance industries
 - Tourism needs healthy ecosystems
 - Institutional owners of farm land need healthy farming
 - Food retailing needs products that are not feared by consumers
- The academic and activist community needs to seek allies in terms of this enlightened self-interest.



Positive forces 2

- Entrepreneurial ventures may create openings for systemic solutions
 - Transportation - intermodal, rail-based, autos in support role
 - Distributed renewable energy systems
 - Integrated resource recovery systems
 - Large scale start-ups or value added networks and joint ventures
- Agile new ventures may have competitive advantage vs the dinosaurs.



Who else?

- What are other examples of negative forces in the political economy? (With sustainability an actual or perceived threat to self-interest)
- What are other examples of “positive forces” in the political economy? (Identity of self-interest with sustainability by powerful industries)
- Who are the major players with leverage in some crisis situations: loss of the fisheries, deforestation, climate change, GMOs?



A Hydrogen Economy

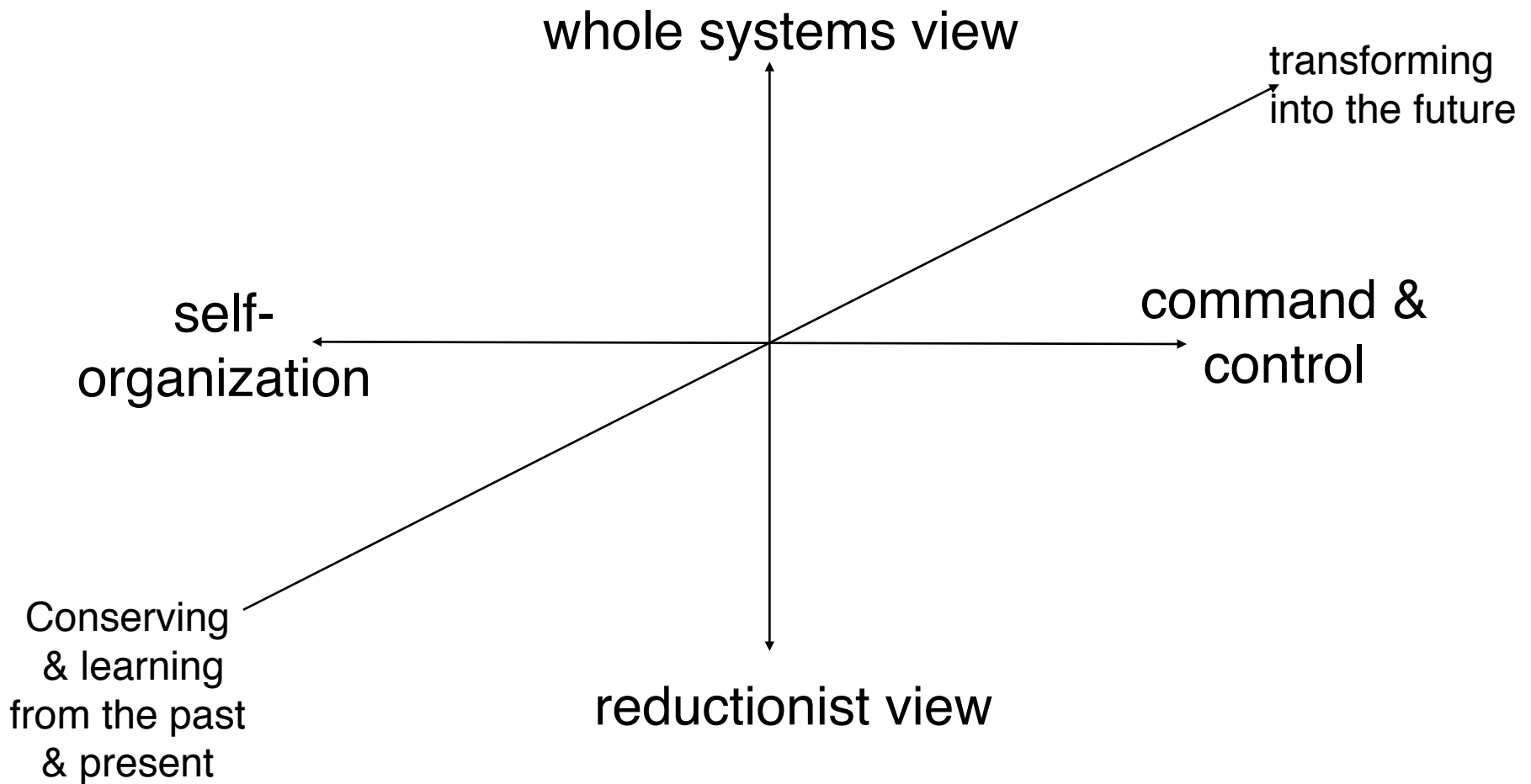
- . . . is now evolving with technology development dominating the discussion.
- Large transnationals like Daimler-Chrysler and Royal Dutch Shell could dominate the socio-economic decision-making that guides the transition.
- This transition is an opportunity for major political economic realignment in the global economy by linking it to a globalism seeking equity between and within countries.



Three dimensions for political economic analysis

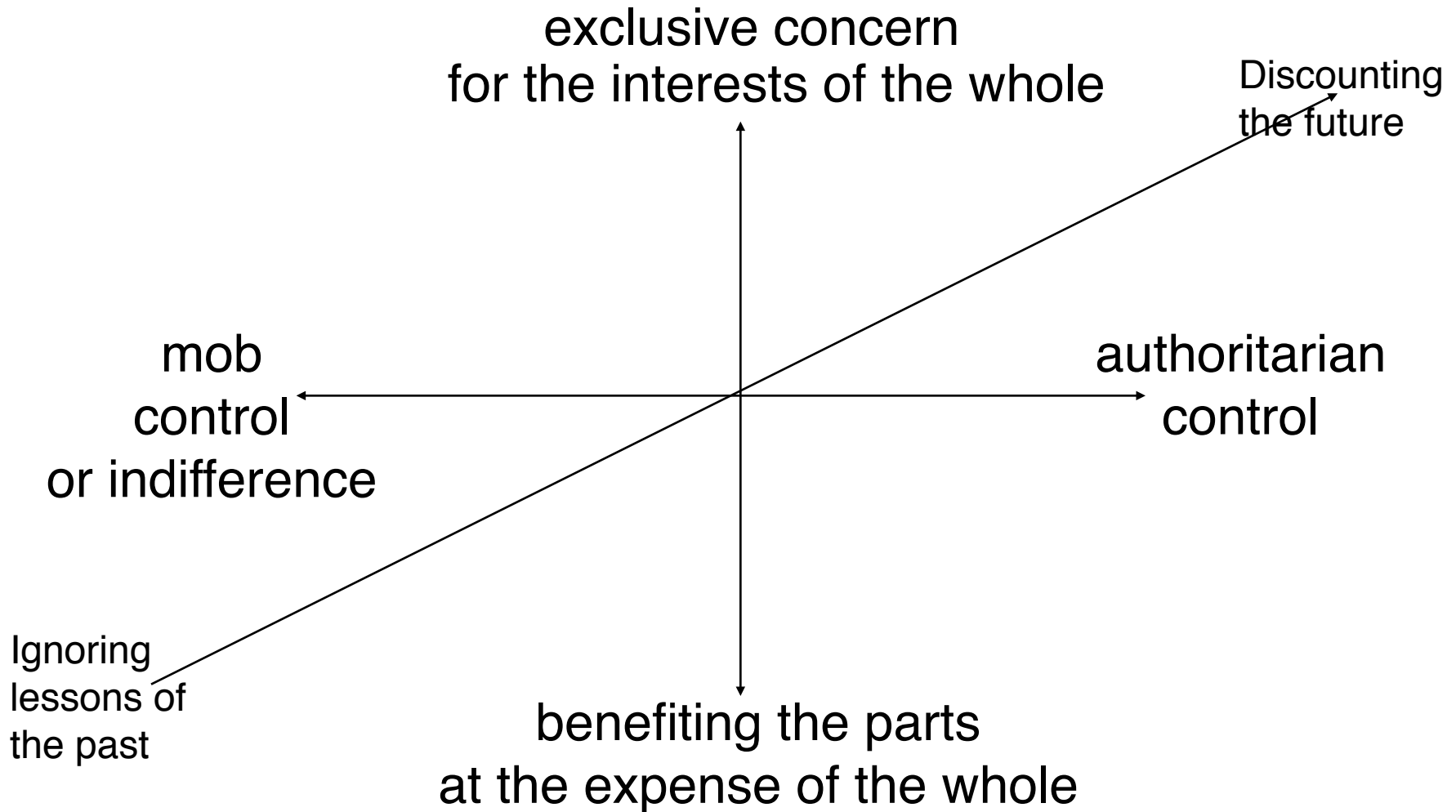
- The old spectrum of left and right is obsolete.
- A new multi-dimensional spectrum is required to evaluate interests, initiatives, programs, and projects.
- Over time we must learn to consciously balance
 - The interests of the whole with the interests of each part;
 - Leadership and expert guidance with popular participation and democratic governance;
 - Conserving of past and present values with transforming systems to attain a livable future.
- We are now seriously out of balance in all three dimensions.

Beyond right and left





The antagonistic version





The creative version

safeguarding the interests
of the whole

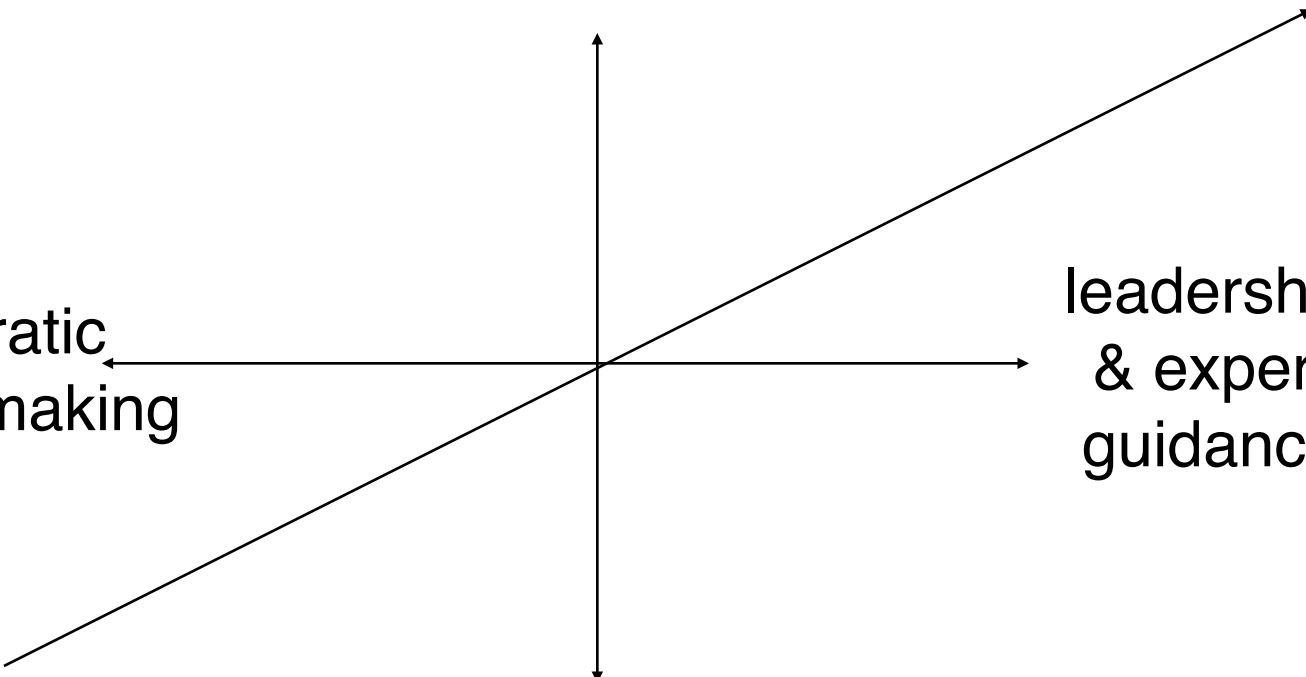
Creating
the future

democratic
decision-making

leadership
& expert
guidance

Conserving
& learning
from the past
& present

safeguarding & balancing the
interests of the parts





Where would you put

- The aggressive rush to market genetically modified organisms?
- The movements challenging globalism?
- George W. Bush's refusal to sign the Kyoto agreement on climate change?
- The campaign against whaling?
- Free market capitalism and the Washington Consensus? WTO, IMF, etc.?
- Micro-lending programs like Grameen?



Where would you put?

- The fundamentalist movements of the Arab world, Judaism, and right wing Christianity?
- The movements for restoration of ecosystems?
- The institutions furthering the widening disparity in wealth and income? (Which ones are they?)
- US imperialistic ambitions and militarism
- NGOs like Rainforest Action Network, World Resources Institute, & Greenpeace?