Why Didn't We Learn: Will We?

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Our Conclusion in 1972

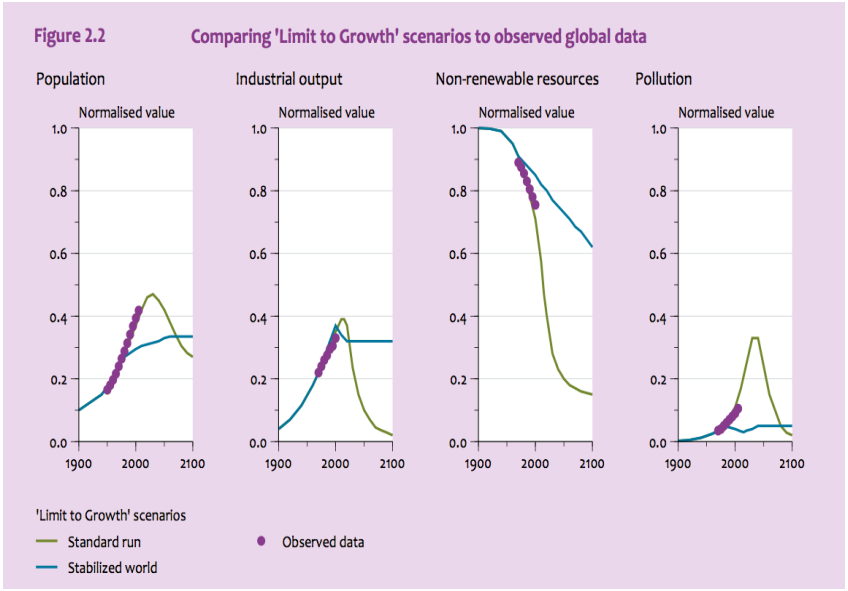
If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years.

Some Leaders Understood

- "We do not need growth. Without growth per capita, that means growth in material-consumption per capita, we can better survive…" Sicco Mansholt, 4th President of the EEC and a founding father of the EU..
- "the Members of the United Nations have perhaps ten years left in which to subordinate their ancient quarrels and … defuse the population explosion" U Thant, Secretary General of the UN"
- "We have learned that more is not necessarily better, that even our great nation has its recognized limits, and that we can neither answer all questions nor solve all problems." Jimmy Carter, President of the US

But society did not learn

- "My first priority will be to put policies that create growth and jobs at the centre of the policy agenda of the next Commission." Jean Claude-Junker, President of the European Commission
- "Promote sustained, inclusive and sustainable economic growth" 8th SDG of the United Nations
- overall U.S. economic growth has significantly outpaced that of every other advanced nation. Boast of President Obama,



Growing Within Limits, Netherlands Environmental Assessment Agency, Bilthoven, NL, Octobre 2009, Page 23

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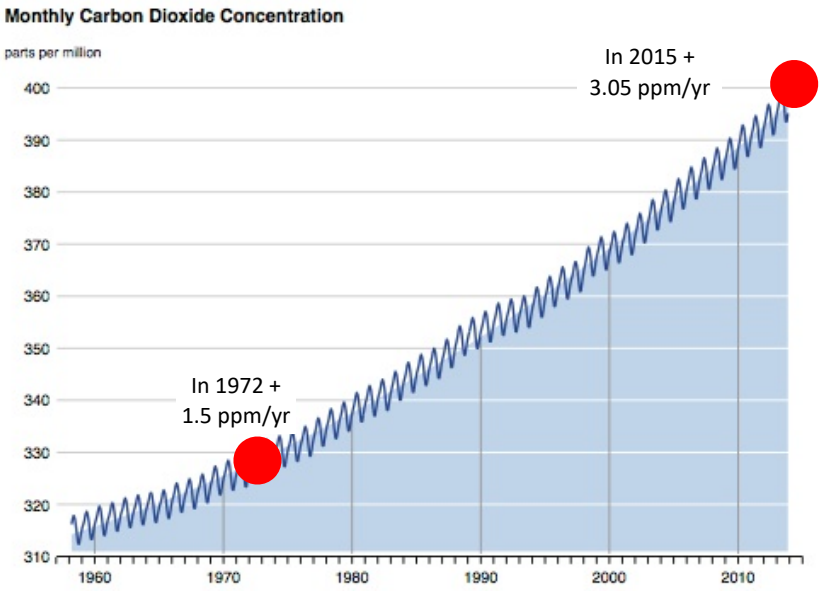

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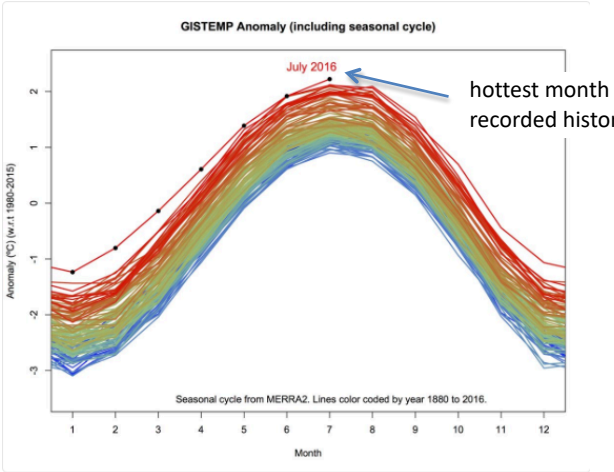
Temperature Trends



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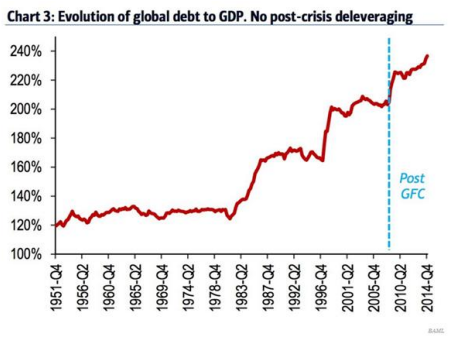
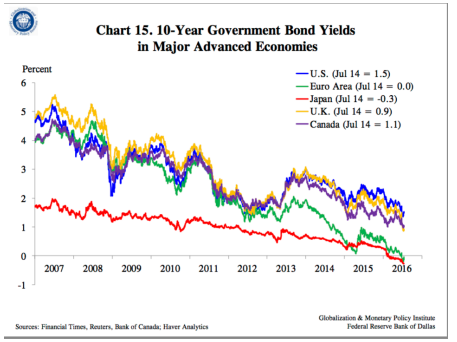
Financial Trends





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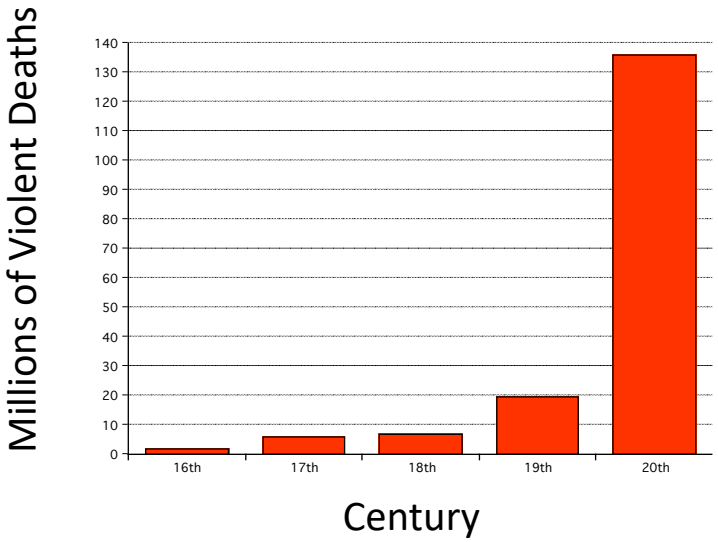
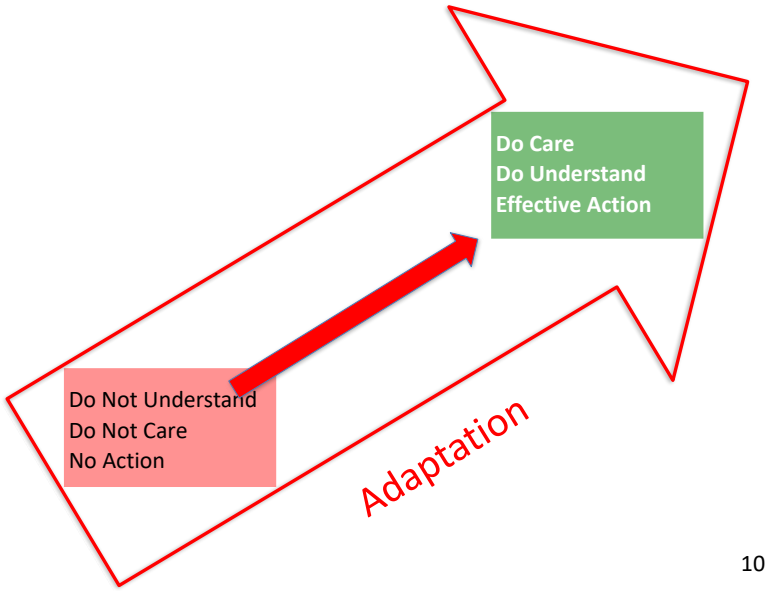
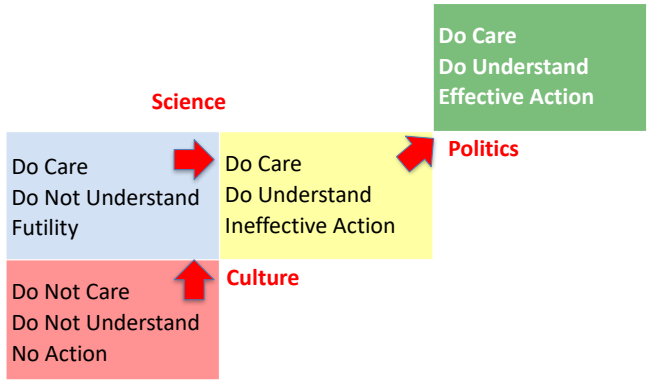
Violence trends



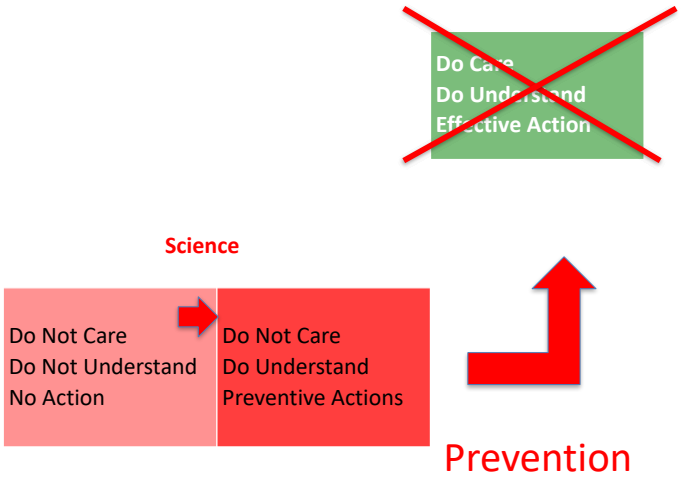
Assumed Path to Action



Actual Path to Action



Actual Path to Inaction



Examples of adaptive actions

- A radical overhaul of the finance system. Credit should only be created by state-owned central banks and speculative activity eradicated
- Big corporations need to be stripped of their power through coordinated global legislation, with rights restored to the people
- In the rich world, we need to create purpose and meaning by redefining and sharing work.
- Policies should promote jobs not economic growth
- The poor world needs smart development – a rapid transfer of wealth, work and technology from the rich world

  Restrictions on trade are necessary to protect jobs, promote sustainable agricultural practices, protect society and halt abuse of corporate power
- Existing agricultural land should be used to produce food sustainably, with farmers at the centre of decision making, not markets and corporations Club of Rome report, 10/15

Examples preventive actions

to prevent and resist government regulation actions have included:

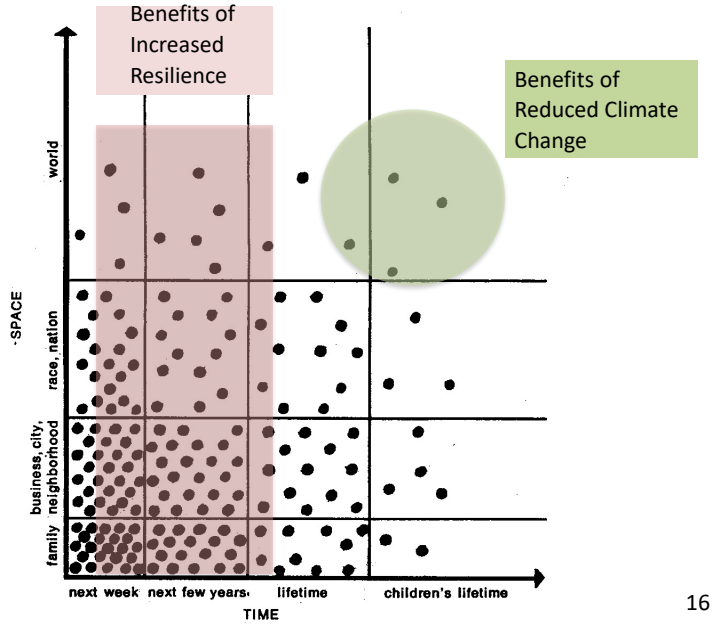
- conducting public relations campaigns,
- buying scientific and other expertise to create controversy about established facts,
- funding political parties,
- hiring lobbyists to influence policy,
- using front groups and allied industries to oppose control measures,
- pre-empting strong legislation by pressing for the adoption of voluntary codes or weaker laws,
- creating international trade agreements that override local control, and
- corrupting public officials.

Bull World Health Organ. 2000;78(7):902-10. "*Tobacco industry tactics for resisting public policy on health.*" Saloojee Y1, Dagli E

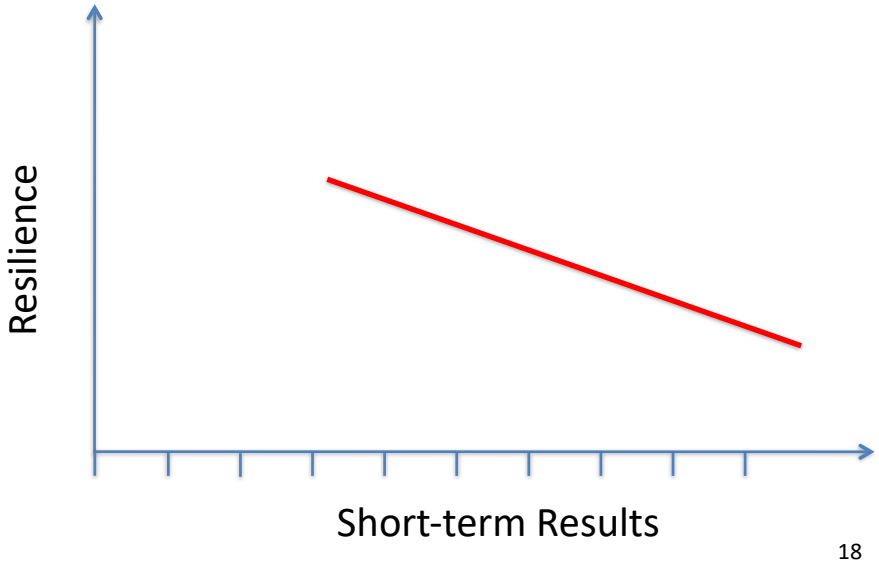
Definition of Resilience

- Resilience is the ability to absorb a shock and quickly regain the ability to perform essential functions.
  - If a resilient system continues to perform without pause, we say it is durable.
  - If a resilient system quits performing briefly and then resumes, we say it is flexible.
- If a system is not resilient, we say it is brittle.

What do we care about?



Five Ways to Increase Resilience

- Improve Efficiency:
  - Efficiency is the ratio (output/input). You an increase efficiency by improving the conversion process (technology change) or by choosing different outputs (cultural change)
- Raise the Barrier:
  - Increase the resistance against shock (stronger or higher barriers)
- Increase Redundancy:
  - Internally by building alternative technical systems
  - Externally by making social networks stronger
- Create more Buffering:
  - Decouple inputs from outputs (build bigger buffers)
- Develop better Predictions:
  - Identify new variables to measure.
  - Reduce the delays in measuring
  - Reduce the errors in measuring.

Actions that increase short-term results reduce resilience