

The Way Forward on Climate

How to Tackle Global Warming Smartly

Bjørn Lomborg

www.lomborg.com

Making a better world

- Rational, not fashionable
 - Doing good vs. feeling good
- Remove our myths
 - Panic is unlikely to be a good guide to making smart choices
- Spend our money best
 - Overworrying about some things mean underworrying about other things

Global warming

What to do?



1

Global warming is real and man-made

Climate change is real

- On the agenda, thanks to Al Gore
- The best information from the UN Climate Panel, IPCC
- Likely temperature rise by 2100
 - 2.6°C (1.6-3.8°C)
- Cost of global warming \$15 trillion
 - 0.5% of 21st century \$3,000 trillion
- Need *smart* strategy

2

Consequences vastly exaggerated and one-sided, leading to bad judgment

Al Gore and the standard story

- Gore and many others tell us
 - Planetary emergency
 - “we have just ten years to avert a major catastrophe that could send our entire planet into a tail-spin of epic destruction involving extreme weather, floods, droughts, epidemics and killer heat waves beyond anything we have ever experienced.”
- Four central issues
 - Heat deaths
 - Sea level rise
 - Hurricanes
 - Malaria

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1 Higher mortality with heat?

- Absolutely more heat deaths
- Number of deaths
 - Dying from increased heat in the UK by 2050
 - 2,000 more
 - But cold deaths in the UK by 2050
 - 20,000 fewer
 - This also holds true globally
 - Net more than 1.4 million *fewer* deaths by 2050

Basello, Roson, & Tol, 2006; Keatinge & Donaldson, 2004; Keatinge et al., 2000

1 Better policies against heat Policy innovation

- Almost no heat deaths in the US
 - Because of air conditioning
- Cities much warmer than countryside
 - Lack of water, more black surfaces
 - Take London:
 - Add more water and greenery
 - 8°C reduction in heat waves
 - Make more light surfaces – paint the tarmac
 - 10°C reduction in heat waves

3

Copenhagen failure predictable:
Smarter options needed

Standard solutions: High costs, no benefits

- Kyoto
 - \$180 billion per year
 - 0.004°C reduction by 2100 (now: 0.0002°C)
- EU 20-20 decision
 - Cost about \$250 billion annually
 - 0.05°C lower by 2100
 - Each dollar spent will avoid 3 cent of climate damage
- 2°C target
 - \$40,000 billion *per year*
 - Each dollar avoids less than 2 cents climate damage
 - If not done optimally, could increase cost 10-100 times

Lack of smart solutions

- Take polar bears
 - Yes, less Arctic ice means fewer polar bears
 - Global population *increasing*
 - 1960: about 5,000
 - Now: about 22,000
- But what can we do?
 - If we implement the Kyoto Protocol
 - Save 1 polar bear each year
 - But each year we shoot polar bears
 - 300-500 each year

Smarter way forward The new global accord

- Invest 0.2% of GDP in RD&D of non-carbon emitting energy technologies
- \$100 billion/year
 - 2 times cheaper than Kyoto
 - 50 times more R&D than today
- Let each country focus on its own visions
 - renewables, fission, fusion, conservation, energy storage, carbon storage, 2nd generation biofuels
- Solves global warming in medium term
- Avoids \$11 climate damage for each dollar

4

Many other problems where we can do much more good

Gore: our generational mission

- How do we want to be remembered?
 - Spending \$180 billion/year doing virtually no good a hundred years from now? (Kyoto etc.)
- Compare this to
 - For \$75 billion/year the UN estimate we can solve all major basic problems
 - Clean drinking water
 - Sanitation
 - Basic healthcare
 - Education

Copenhagen Consensus 2008

Top economists: Most bang for the buck

Very good investments	1	Micronutrients
	2	Free trade
	3	Immunization
	4	Agricultural R&D
	...	
	14	Energy R&D
...		
30	Cut CO ₂	

Copenhagen Consensus

Conclusion

- Generational mission
 - Focus on best solutions
 - Maldives rich, not slightly lower sea level
 - All the top Copenhagen Consensus solutions
 - Weigh benefits *and* costs
 - Saving one polar bear at \$180 billion?
 - For global warming, do the smart policies
 - Stop shooting polar bears
 - Invest in energy R&D
- Rational, not fashionable



