The CO2 reduction imperative

The IPCC projects that “business-as-usual” will result in temperature increases of 3.7 to 4.8°C above pre-industrial levels.

The World Bank and the Potsdam Institute describe an increase in 4°C as “devastating”, resulting in “the inundation of coastal cities; increasing risks for food production; unprecedented heat waves in many regions, especially in the tropics.”
“There is also no certainty that adaptation to a 4°C world is possible. A 4°C world is likely to be one in which communities, cities and countries would experience severe disruptions, damage, and dislocation, with many of these risks spread unequally. It is likely that the poor will suffer most and the global community could become more fractured, and unequal than today.”

World Bank and the Potsdam Institute, 2012
The carbon budget & 2°C

Carbon budget cumulative emissions targets

Cap emissions below one trillion tonnes
(or below a concentration of 450 ppm)
to avoid 2°C warming scenario
(IPCC, Meinshausen et al)

A cap of 600 billion tonnes
would be necessary to more securely safeguard the climate system for future generations
(Hansen & the Columbia Earth Institute)
As of June 2014
580.7 billion tonnes of CO2 have already been emitted
At current rates the trillionth tonne would be emitted in December 2040

Trillionthtonne.org
• The carbon budget

66% of proven reserves must remain embedded in place to meet the 2°C target* **

Others estimate 80% of reserves must be unexploited to achieve “safe” levels of warming
• Carbon Tracker, the Grantham Institute on Climate Change & the London School of Economics, 2013
63% of CO2 and methane emitted between 1751 and 2010 can be attributed to just 90 emitters (states and their corporate permittees)  
Heede, 2013
1. **HOLLAND - "Urgenda"** - Court Orders Netherlands to make 25% Reduction in Carbon Emissions by 2020

2. **PAKISTAN - "Leghari"** - High Court Finds Pakistan government has constitutional duty to protect citizens from climate impacts; orders government to take concrete measures

3. **PHILIPPINES** - Citizens Petition Human Rights Commission to Investigate responsibility of foreign based "Carbon Majors" for climate induced human rights violations

4. **Washington State, U.S.A. - "Our Childrens' Trust"** - Court finds state government has public trust duty to ensure stringent carbon emission standards to protect children from the burden of future climate change emissions
In future, carbon reserves may be regarded as toxic substances and would, therefore, need to remain embedded:

- Except under conditions assuring no new GHG emissions during extraction / use
- Limited exceptions would apply in exigent local circumstances or for fairness to those substantially lacking access to energy
Future carbon resources: toxic just like tobacco

Yesterday

According to repeated nationwide surveys,

More Doctors Smoke CAMELS
than any other cigarette!

Doctors in every branch of medicine
were asked, "What cigarette do you smoke?"
The brand named most was Camel!

THE DOCTORS' CHOICE IS AMERICA'S CHOICE!

For 30 days, test Camels in your "T-Zone" (T for Throat, T for Taste).

Today

WARNING: Cigarettes cause strokes and heart disease.

WARNING: TOBACCO SMOKE CAN HARM YOUR CHILDREN.

1-800-QUIT-NOW

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CITIZEN ACTION

Fossil fuel labeling to change purchasing behaviour:

- Not-for-profit, Our Horizon, works with municipalities to pass by-laws placing warning labels on gas pumps

- The Municipality of West Vancouver recently voted to pursue a such by-law
Achieving the carbon budget: Reframing for action?

- Who’s responsible?
- Approaches to achieving the 2°C target
  - Direct regulation of carbon by local, provincial, national, or global authorities
  - Phasing out fossil fuel subsidies
  - Political leadership and funding to implement renewable energy and energy efficiency
  - Legal reforms
  - Citizen action