Carbon Politics

SIXTH ELEMENT
SUSTAINABLE
MANAGEMENT

UNFCCC

UN FC CC

United **N**ations

Framework **C**onvention

Climate **C**hange

Kyoto Protocol

Stages:

1. Negotiation
2. Signing (symbolic)
3. Ratification (binding)

E & E

Environment brings nations together

Economics leads the negotiations

XO_2

Three gases (XO_2) in the atmosphere have brought the world to the negotiating table:

1. X = S: sulfur dioxide
2. X = O: ozone
3. X = C: carbon dioxide

X = S
Acid Rain

Europe: UK major emitter, wanted proof before taking action

U.S.: market-based mechanism; low-sulfur coal in Wyoming

X = O
Ozone Hole

Montreal Protocol

UK against the treaty
U.S. for the treaty

Battle of Chemical Giants: ICI (UK) vs. DuPont (US)

X ≡ C
Climate Change

Much more complex than acid rain or ozone hole problem

Fossil fuels affect all nations

IPCC

Intergovernmental **P**anel on **C**limate **C**hange:

Political body to coordinate the review of the science on climate change for the UNFCCC

AR#

Assessment **R**eport Number

Every 6 years or so, there are three types of reviews for the UNFCCC:

1. Science (changes in adjectives)
2. Impacts
3. Response (policy neutral)

Paralysis by Analysis

Typical strategy to avoid dealing with an issue.

The U.S. suggested the IPCC for this reason.

The Players

U.S.

White House vs. Greenhouse

George H.W. Bush

Refused to go to the Earth Summit unless he got his way.

Byrd-Hagel Resolution

Bill Clinton/Al Gore

Just before Kyoto (1997), the U.S. Senate voted 99-0 to reject any climate treaty without the participation of all nations.

Copenhagen Accord

Barack Obama

Not a protocol or part of the UNFCCC

China

China Coal

=

Opec Oil

Energy content

Growth in energy demand at unprecedented rates

Common but Differentiated Responsibilities

Four words under intense international debate for over a quarter of a century

Luxury Emissions

of developed nations

vs.

Survival Emissions

of developing nations

Canada

Once a Leader in Climate Negotiations

Maurice Strong-1st Exec. Dir. of UNEP-1973
James MacNeil-secretary Brundtland Report-1988
James Howard Ferguson-chair of Toronto Conf-1988
Jim Bruce-opened 1st IPCC Plenary Session-1988
Elizabeth Dowdeswell-chair of INC WG-1991
Elizabeth Dowdeswell-3rd Exec. Dir. of UNEP-1995

But then something changed!

December 12, 2011

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Canada pulls out of Kyoto Protocol

CBC News Posted: Dec 12, 2011 4:00 PM ET | Last Updated: Dec 13, 2011 7:57 AM ET

Canada's withdrawal from Kyoto Protocol irresponsible action

English.news.cn 2011-12-13 17:49:51

by Zhu Junqing, Zhang Xiaojun

BEIJING, Dec. 13 (Xinhua) -- Canada Monday became the first country to pull out of the historic Kyoto Protocol, inescapably scarring the global anti-climate change efforts.

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Canada's withdrawal from Kyoto Protocol regrettable – UN climate official

UNFCCC Executive Secretary Christiana Figueres

Kyoto Targets

Reduction in greenhouse gases (e.g., CO_2) by 2012 compared to 1990.

-6%

Kyoto Target of Canada

-7%

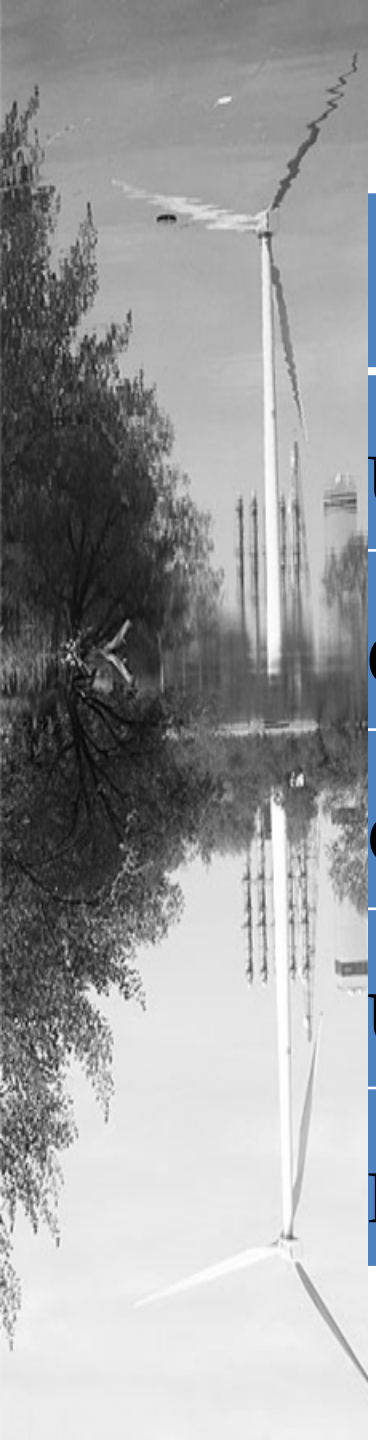
Kyoto Target of U.S.

-8%

Kyoto Target of European Union

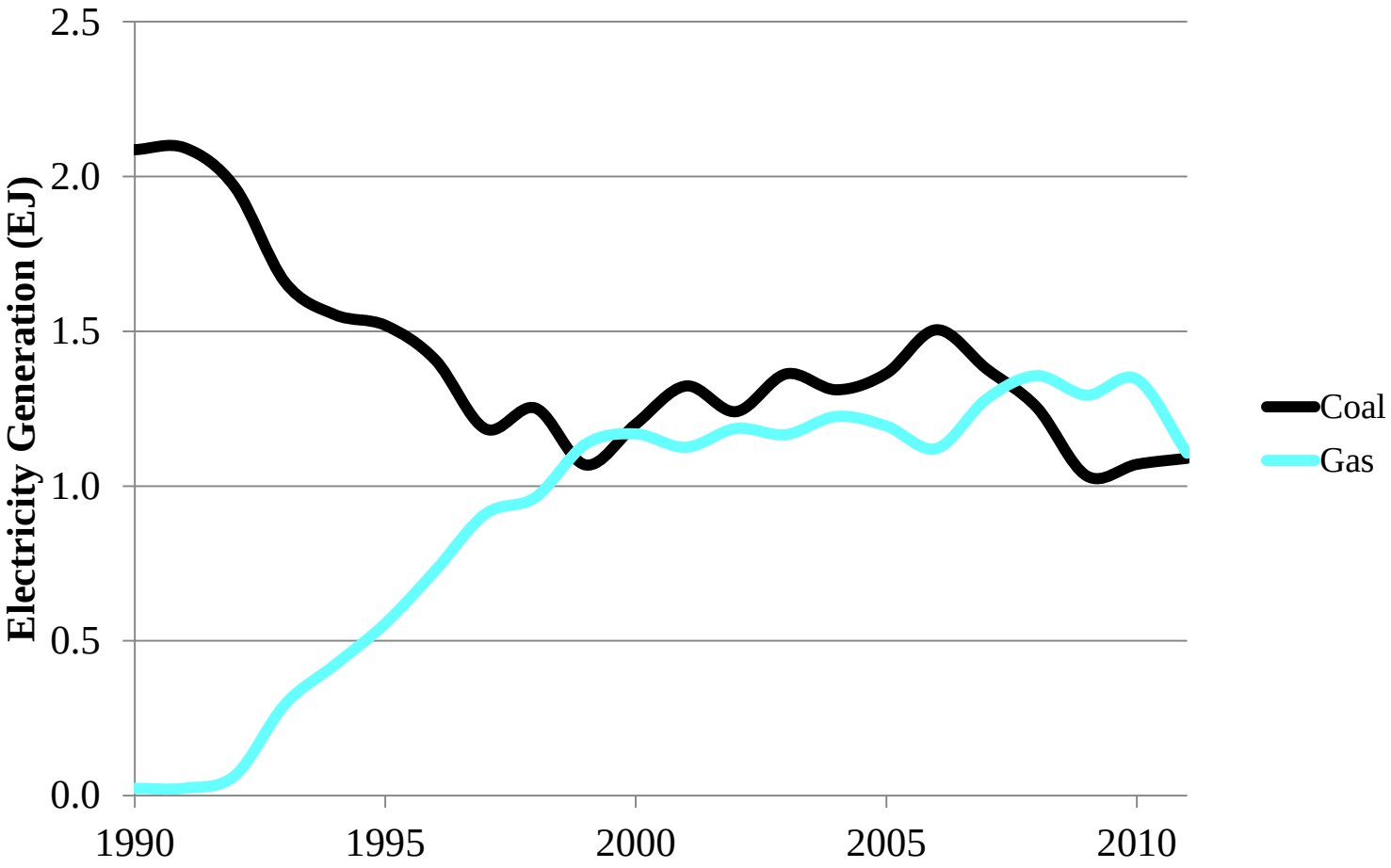
-21%

Kyoto Target of Germany!

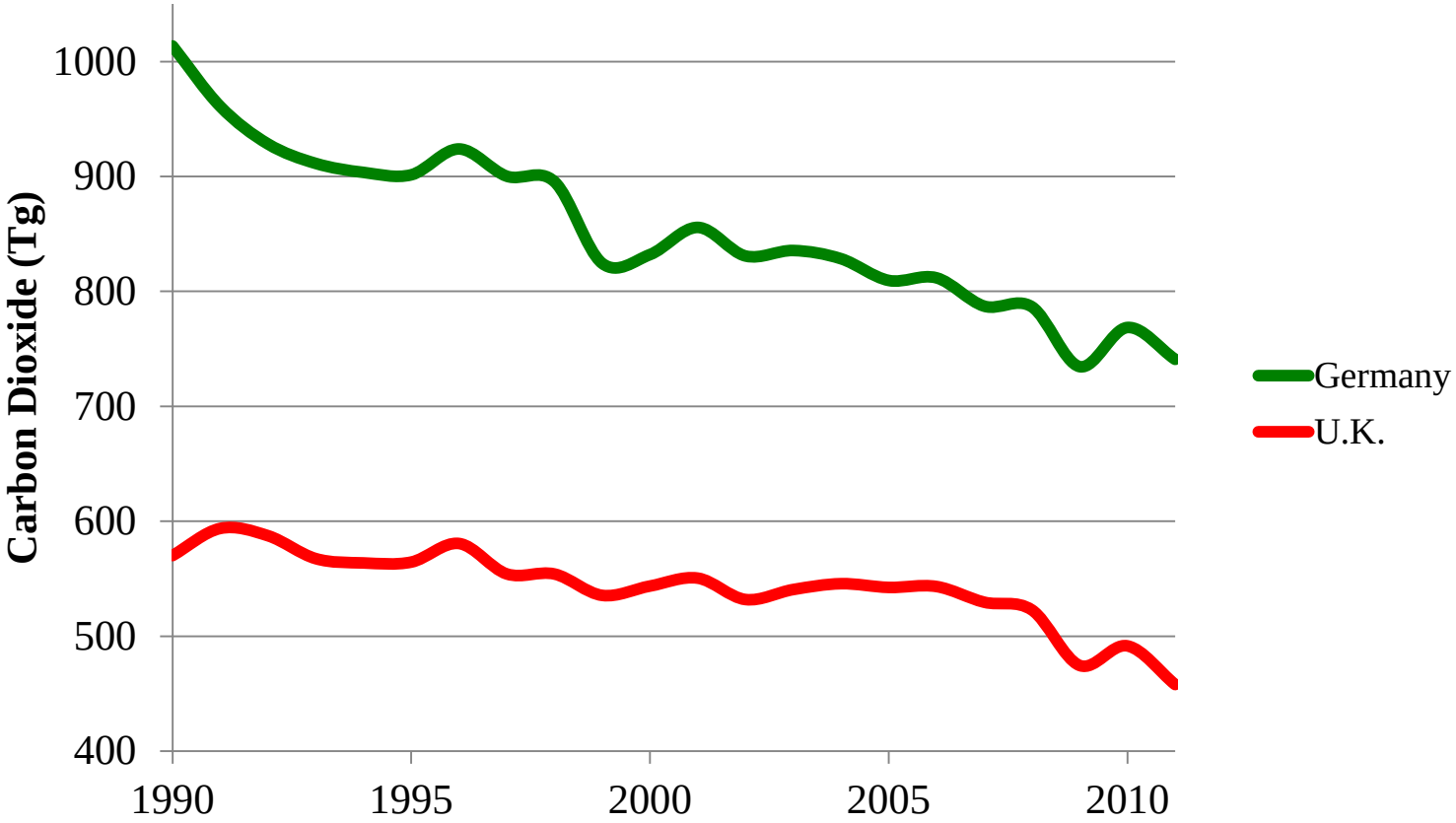


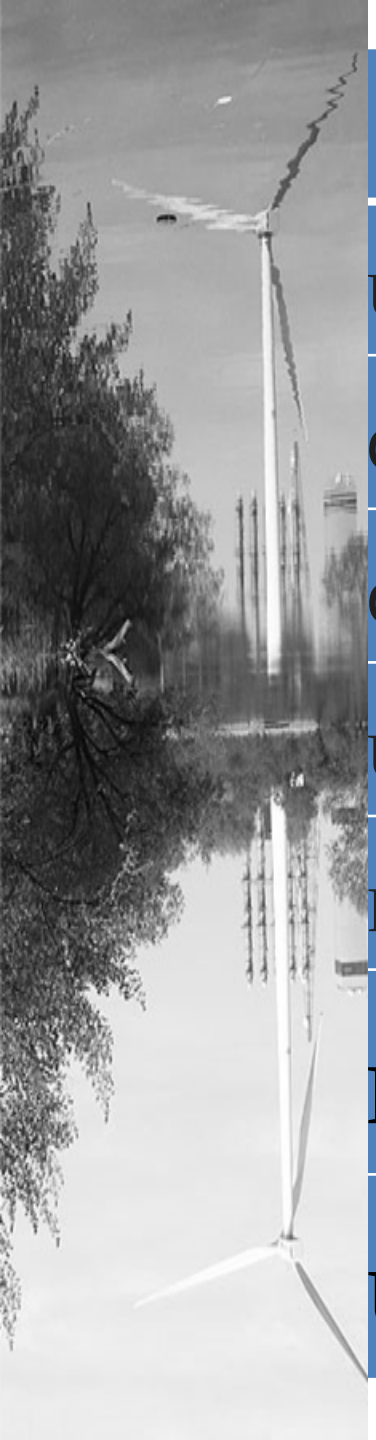
Country	Kyoto Target	Actual
U.S.	-7%	+10%
Canada	-6%	+25%
Germany	**-21%**	**-20%**
UK	**-13%**	**-12%**
France	0%	-4%

Fuel Sources for Electricity Generation in the U.K.



Carbon Dioxide Emissions for Germany & the UK



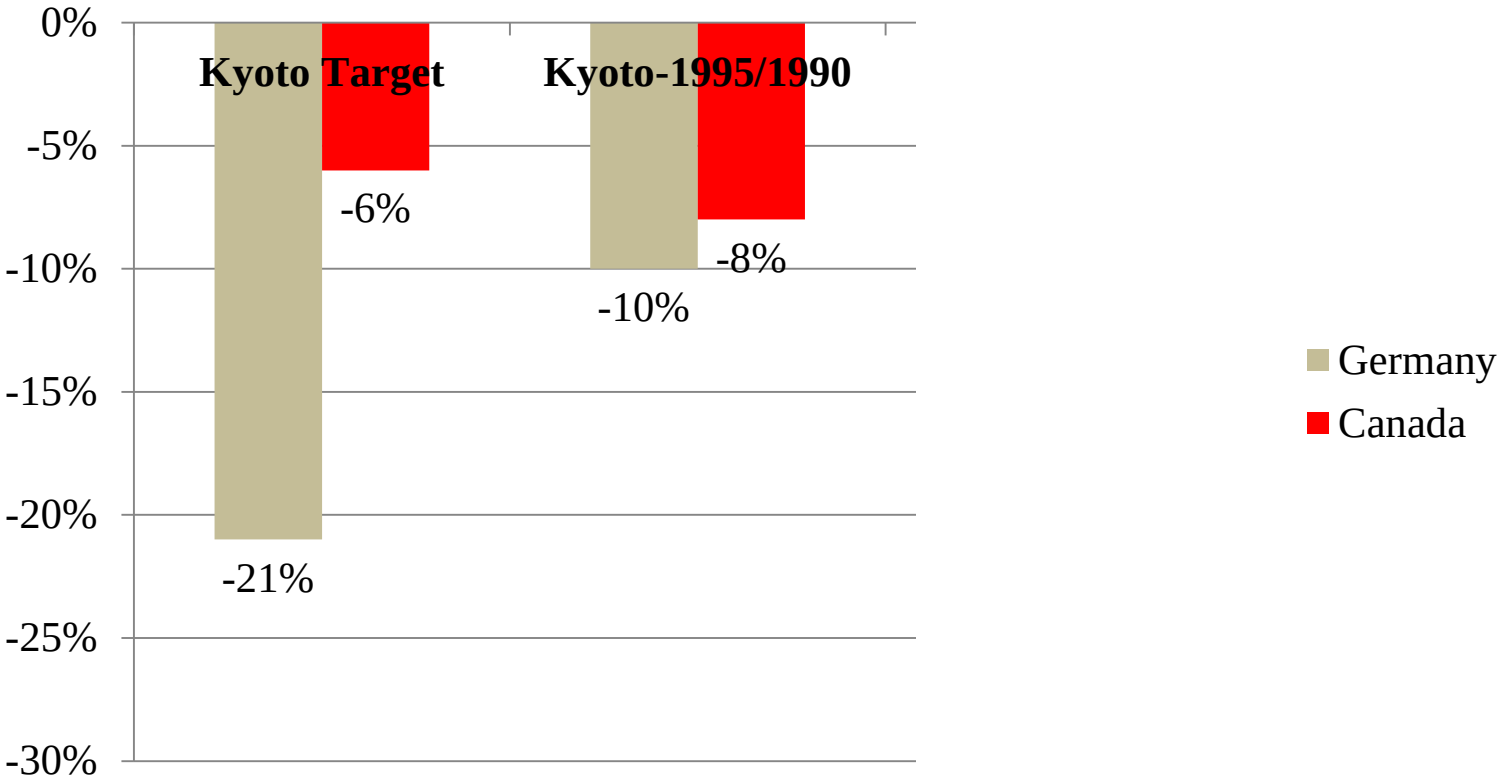


Country	Kyoto Target	Actual
U.S.	-7%	+10%
Canada	-6%	+25%
Germany	-21%	-20%
UK	-13%	-12%
France	0%	-2%
Russia	**0%**	**-29%**
Ukraine	**0%**	**-59%**

1995

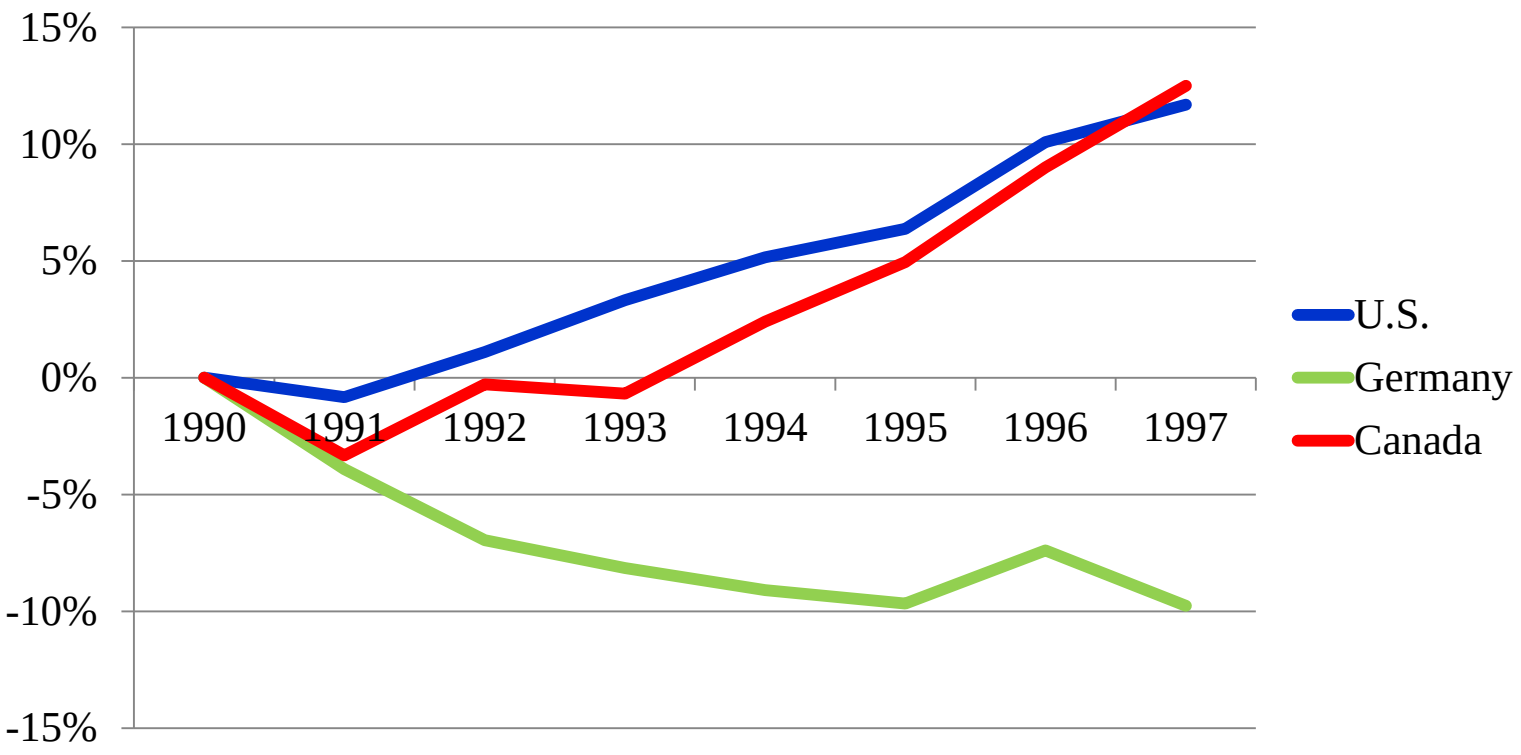
The most recent Greenhouse Gas (GHG) data available at the time of the Kyoto meeting in 1997 was for 1995. The 1995 GHG emissions compared to the Kyoto targets (which were based on 1990 GHG emissions) best represented the status of what each nation still had to do.

The Challenges of the Kyoto Targets: Germany vs. Canada



Even though the Kyoto targets imply that Germany had taken on a much greater challenge than Canada (left bars), the actual emissions of 1995 (data available for the Kyoto meeting) showed that both countries had a similar challenge ahead (right bars).

Normalized GHG Emissions from the Kyoto Base Year to the year of Kyoto

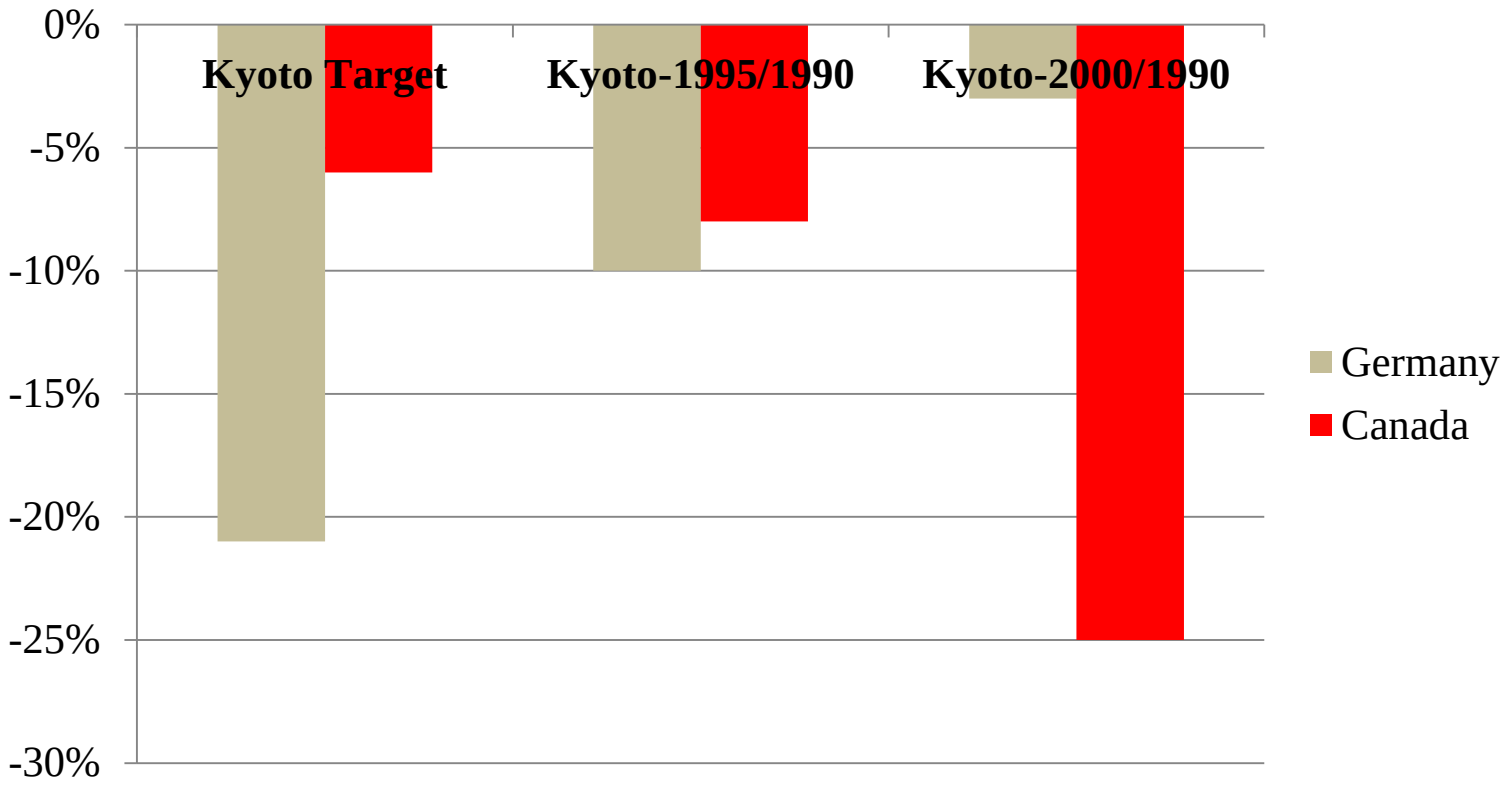


The North American GHG emission (on a percentage basis) had increased by more than 10% since 1990 going into the Kyoto meeting, while the GHG emissions of Germany had decreased by more than 10%, even though no nation, including Germany, had introduced policies to reduce emissions.

2000

The most recent Greenhouse Gas (GHG) data available at the time of the ratification of Kyoto in 2002 for Germany and Canada was for 2000. The 2000 GHG emissions compared to the Kyoto targets (which were based on 1990 GHG emissions) best represented the status of what each nation still had to do.

The Challenges of the Kyoto Targets: Germany vs. Canada



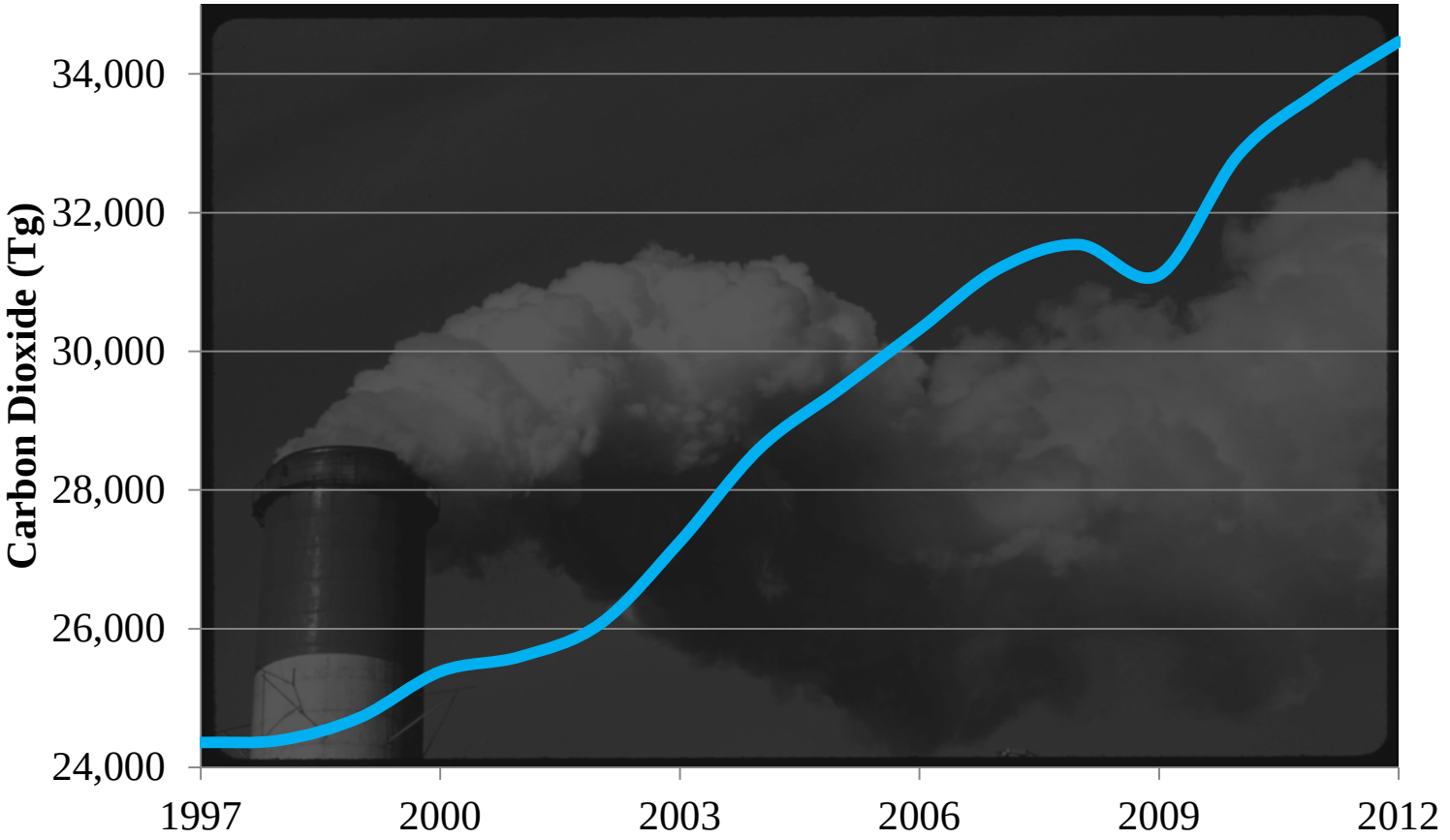
Even though the Kyoto targets imply that Germany had taken on a much greater challenge than Canada (left bars), the actual emissions of 2000 (data available for the Kyoto meeting) showed that Germany had almost reached its target and Canada had no chance to meet its target (right bars), even though no nation, including Germany, had introduced policies to reduce emissions.

Germany cannot be faulted for having an economy that favoured GHG emission reductions, but it can be criticized for forcing similar targets upon other developed nations to improve its competitive position.

October 29, 1990 - the EU proposed that they would return to 1990 levels by 2000 **if other nations agreed to similar regulations**

June 1998 - *The EU succeeded* [at Kyoto by getting] ***similar to the EU's own commitment***. *This ensured that Community* ***competitiveness****, a major concern, was safeguarded.*

Global GHG Emissions since Kyoto



The Kyoto negotiation process was flawed, and the Kyoto targets were based on politics, not science. The final judgement on the success of Kyoto must be based on the GHG emissions themselves. Since the signing of the Kyoto Protocol in 1997, GHG emissions have escalated at a faster rate than any other time in history.

Policy Development

The answer must be

SIMPLE

for complex problems such as climate change

G3

China, U.S., EU

Source of 60% of GHG Emissions

Forget about the other
200 nations for now

ON Solution

Need solutions that allow
the lights to stay **on**.

Ontario (**ON**) has carried out the
largest phase-out of coal-fired power
in the world.

ON Solution

Nations should focus first on the reduction of coal-fired power.

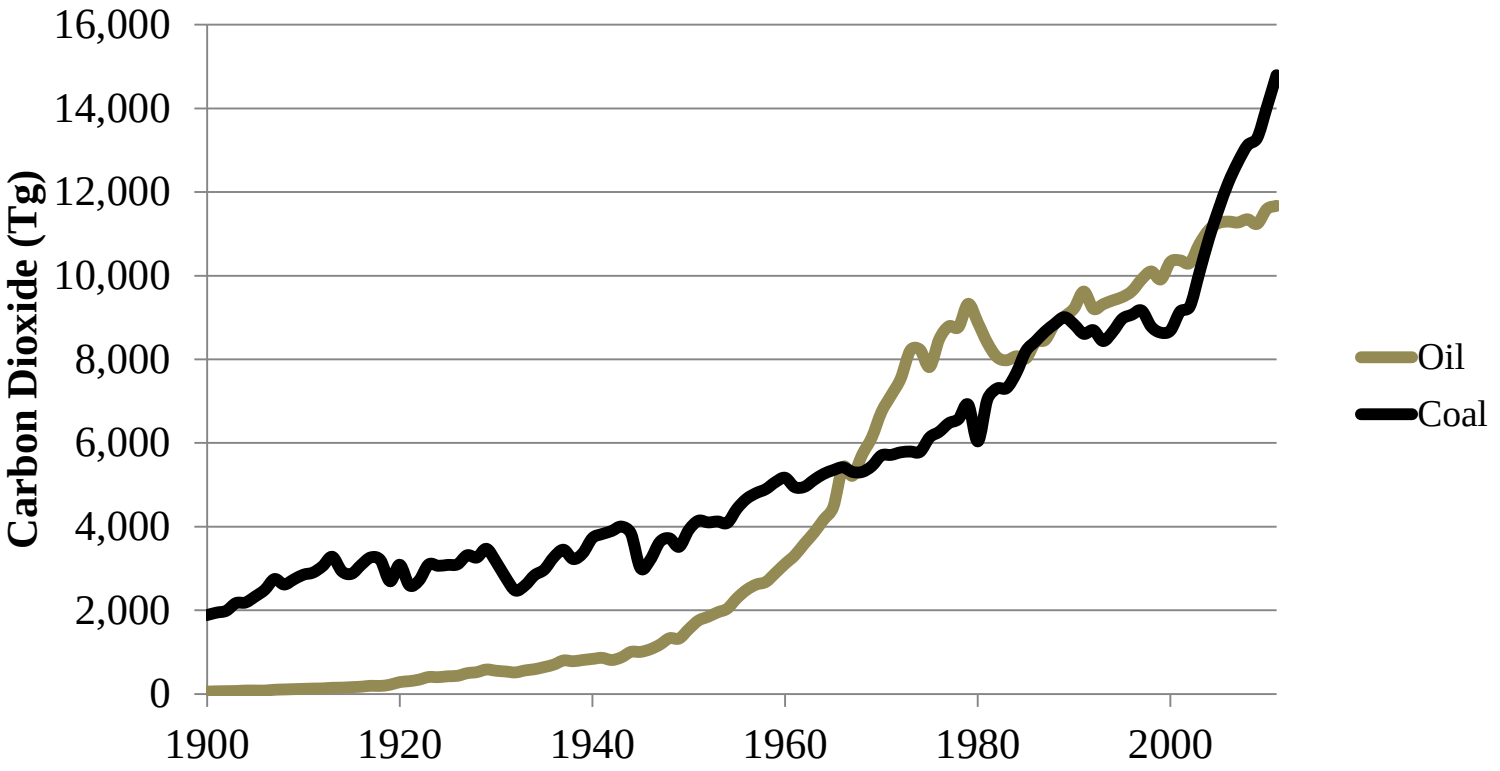
Why?

WHY COAL?

Not to protect our oil sands!

- Simplest solution
- Most carbon-intensive fuel
- Fastest growing fossil fuel
- Largest point sources of CO_2
- Cost Effective
- Less disruptive

Global GHG Emissions from Oil and Coal over the Past Century



Since the beginning of the millennium, GHG emissions from coal have soared at an incredible rate (and continue to do so), and far outpace the growth in emissions from oil. This surge in coal has been led by the economy of China. Clearly, something must be done with coal-fired emissions to have any chance of controlling GHG levels.

Example of Equivalent GHG Reduction:

Replacing a Coal-fired Power Plant vs. Automobile Fuel (Oil)

1 GW Coal Plant =
1.5 million cars

Upton Sinclair - 1935:

It is difficult to get a man to understand something, when his salary depends upon his not understanding it.

To paraphrase Upton Sinclair :

It is difficult to get a nation *to understand something, when* its economy *depends upon* it *not understanding it.*

ROUTLEDGE EXPLORATIONS IN ENVIRONMENTAL STUDIES

Carbon Politics and the Failure of the Kyoto Protocol

Gerald Kutney

ROUTLEDGE