



International cooperation and
climate change agreements with
emphasis on the Kyoto Protocol
and the future

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Ministry of environment

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Historical context of the Kyoto Protocol

- IPCC 1990
- UNFCCC 1992 – entry into force 1994
 - Article 4.2 a and b (Annex I commitments for 2000 – take the lead)
 - Common, but differentiated commitments and ...
 - Broad array of commitments; reporting, technology transfer, R&D, PAMs, AIJ, special considerations ("OPEC", LDCs, vulnerable countries), financial mechanism, capacity building etc.
- Berlin Mandate 1995
 - PROOLI
 - QELROs (cap on emissions)
 - PAMs (taxes very difficult)
 - No new commitments for developing countries
- IPCC 1995



Background

- Growing global emissions
 - Europe: limited as a whole, differences
 - USA, Canada, Australia Norway : strong growth
 - Eastern Europe: Economic decline from 1990
- Developing countries:
 - Strong growth, total emissions will surpass Annex I emissions in a few decades.
- Sinks – perhaps 20 % contribution

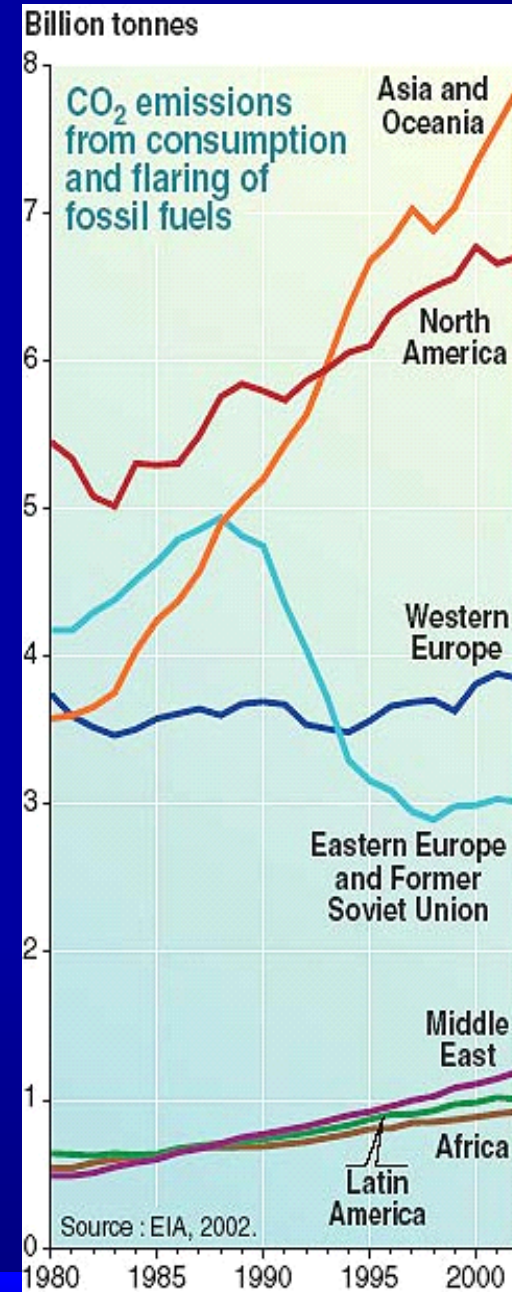


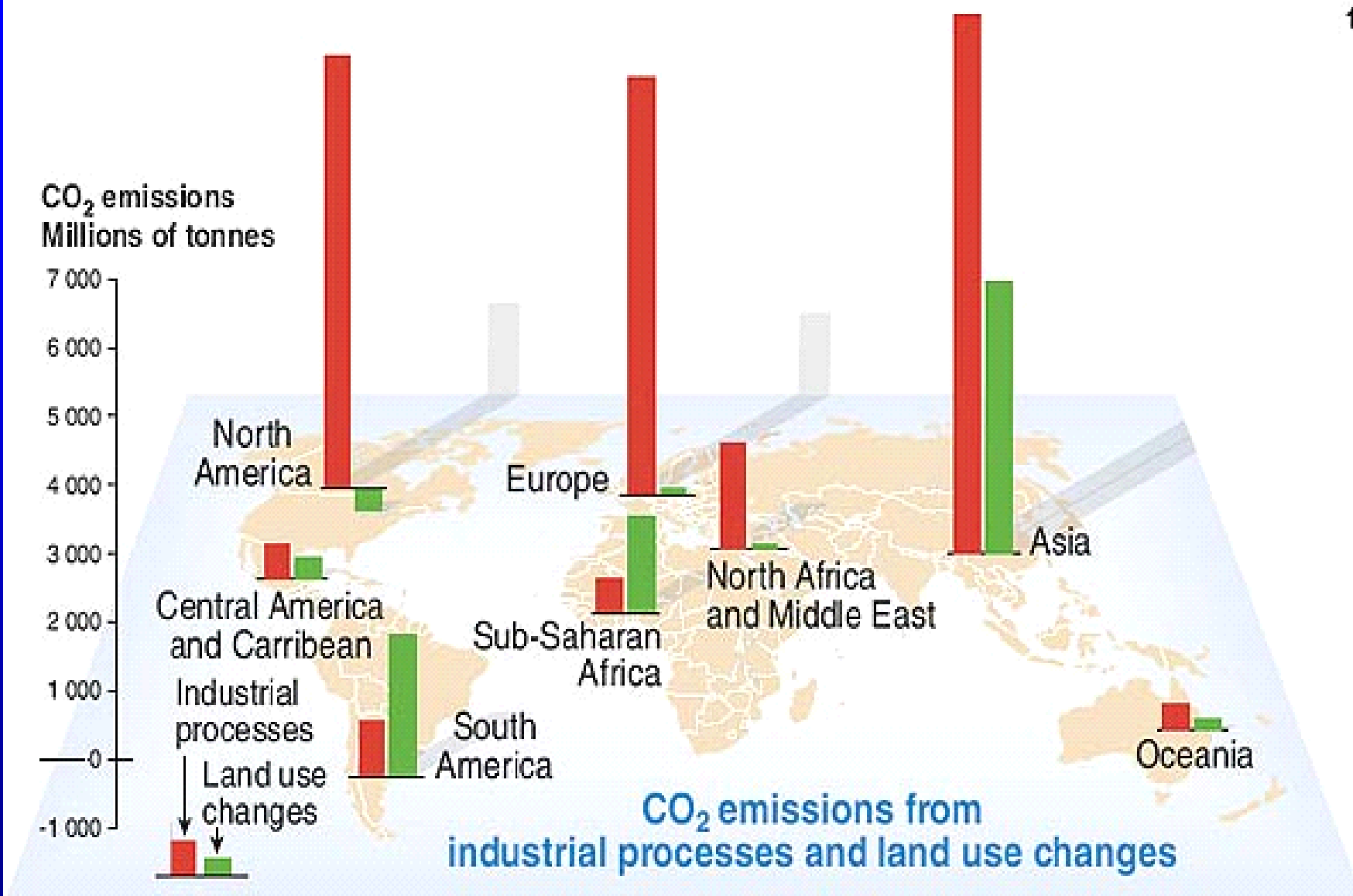
Emissions growth

- ☞ IEA projects 70% growth in global CO₂-emissions by 2030 in the absence of further measures.
- ☞ India and China matter most:
 - 2,8% annual emissions growth in China
 - China's share of global emissions may grow from 14% to 19%.
 - 2,9% annual growth in India
 - India's emissions more than doubles by 2030

Source: IEA *World Energy Outlook 2004*

- ☞ Need for a global agreement that also includes country with major emissions and strong emissions growth.

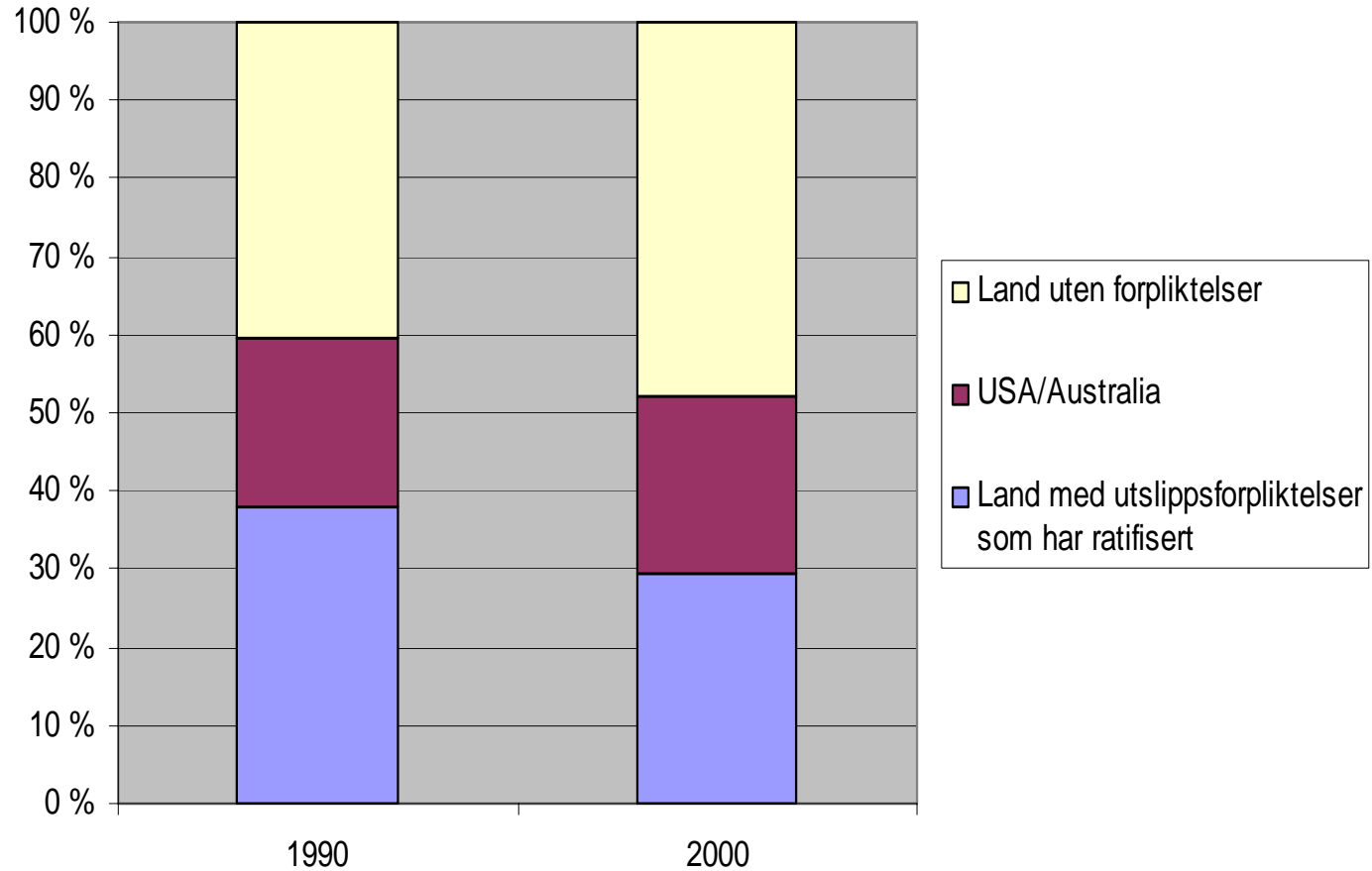




For industry: IEA, CDIAC, WRI (The Climate Analysis Indicator tools)

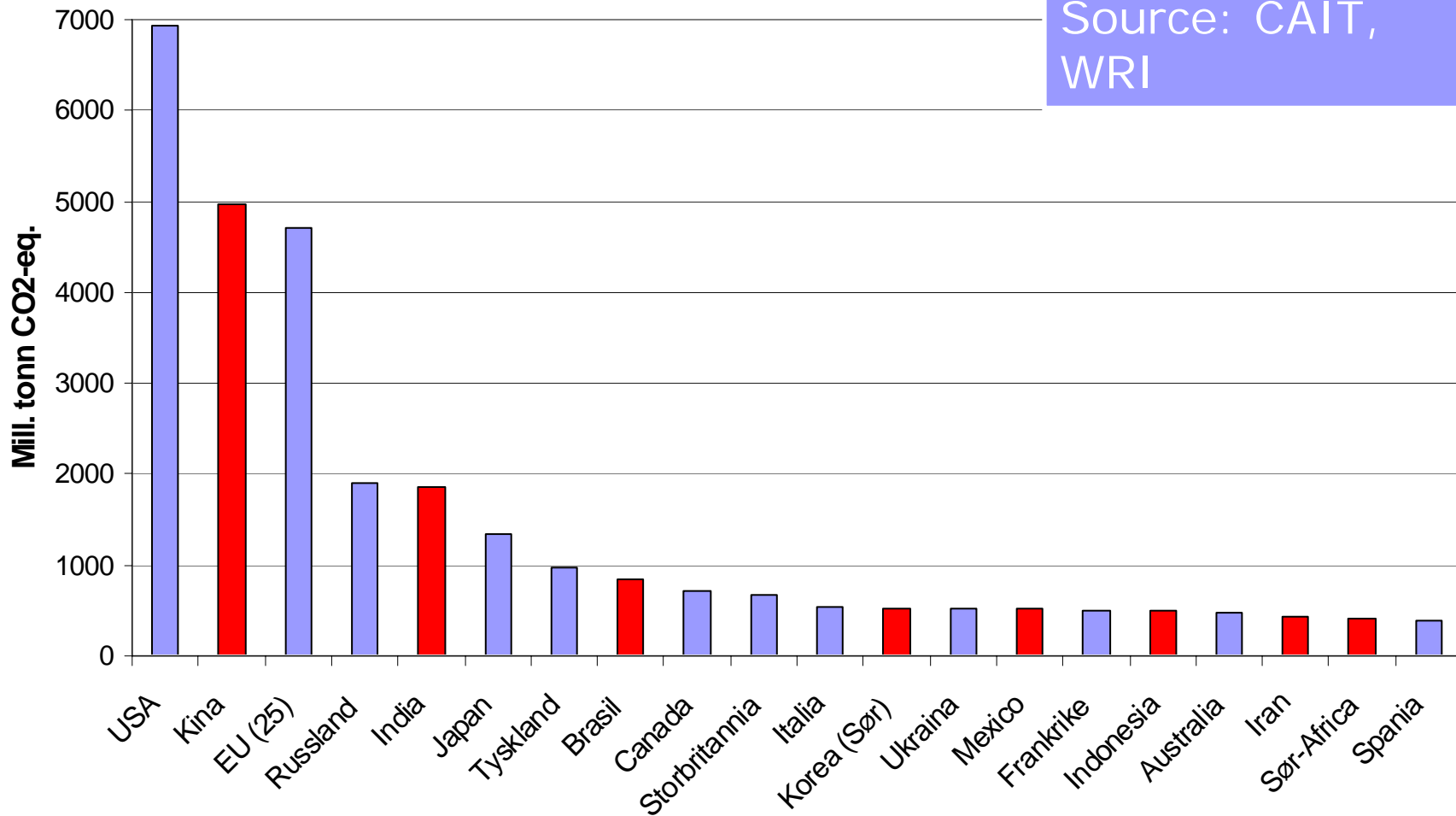
For Land use Change: Houghton, R.A. 2003. "Emissions (and Sinks) of Carbon from Land-Use Change."94 (Estimates of national sources and sinks of carbon resulting from changes in land use, 1950 to 2000). Report to the World Resources Institute from the Woods Hole Research Center. WRI (The Climate Analysis Indicator tools)

Distribution of global emissions of ghgs 1990 and 2000



Emissions of GHGs

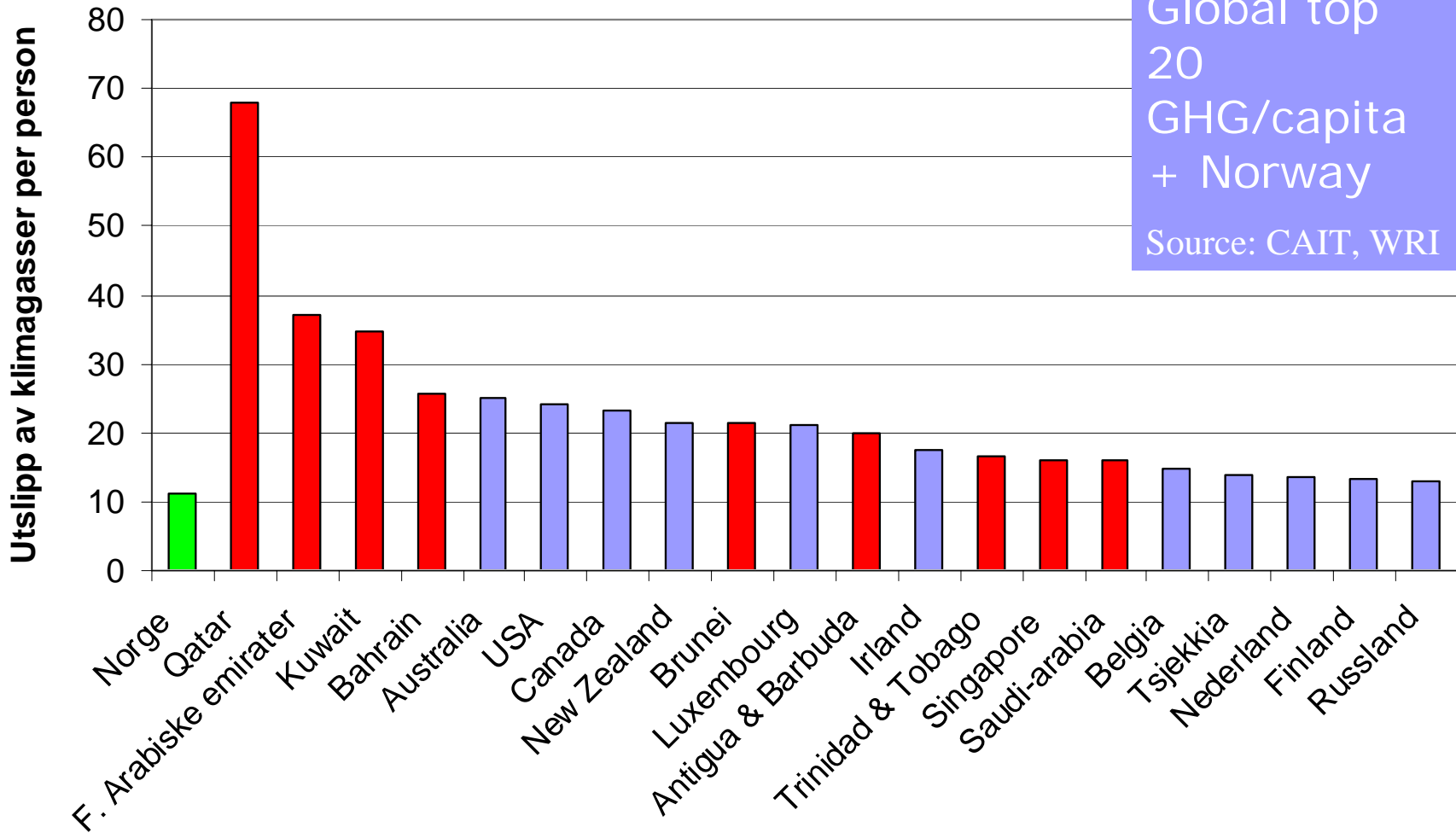
Source: CAIT,
WRI



Emissions per capita

Global top
20
GHG/capita
+ Norway

Source: CAIT, WRI



KP: Quantitative emission commitments

- ☞ Covers CO₂, CH₄, N₂O, PFC, SF₆ og HFC.
- ☞ For Annex I emissions for the period 2008-2012 shall be at least 5% below 1990.
- ☞ Individual and differentiated commitments for each country in Annex B.
- ☞ For PFC, SF₆ og HFC 1995 can be chosen as base year.



Kyoto Protocol: Emissions commitments

- ☞ -8% : EU, Bulgaria, Czech Republic, Estonia, Latvia, Liechtenstein, Lithuania, Monaco, Romania, Slovakia, Slovenia, Switzerland
- ☞ -7% : USA
- ☞ -6% : Canada, Hungary, Japan, Poland
- ☞ -5% : Croatia



Kyoto protocol: Emissions commitments

- 👉 0%: New Zealand, Russian Federation, Ukraine
- 👉 +1%: Norway
- 👉 +8%: Australia
- 👉 +10%: Iceland



EU's burden sharing

☞ Austria	-13 %	Italy	- 6.5 %
☞ Belgium	- 7.5 %	Luxemburg	-28%
☞ Denmark	- 21 %	Netherlands	- 6%
☞ Finland	0 %	Portugal	+27%
☞ France	0 %	Spain	+15%
☞ Germany	- 21 %	Sweden	+ 4%
☞ Greece	+ 25 %	UK	-12.5%
☞ Ireland	+ 13 %		



Kyoto Protocol

☞ Sinks partly included

: “.....direct human-induced land use change and forestry activities, limited to afforestation, reforestation, and deforestation since 1990,



Kyoto protocol:

- ☞ Commitments for periods post 2012 to be established through “amendments” in Annex B. Process starts in Montreal in 2005 (seven years before the end of first commitment period).



Kyoto Protocol: Flexibility, market based mechanisms

- ☞ Joint Implementation between Parties in Annex I.
- ☞ Clean development mechanism.
- ☞ Emissions trading.
- ☞ Use of the Kyoto mechanisms shall be supplemental to domestic action.



Kyoto-Protocol: Compliance regime

- ☞ COP/MoP 1 (Montreal 2005) to adopt: “.. effective procedures and mechanisms to determine and to address cases of non-compliance ..., including through the development of an indicative list of consequences, taking into account the cause, type, degree and frequency of non-compliance. ...”



Kyoto-Protocol: Entry into force

- ☞ Double trigger: The Protocol enters into force 90 days after
 - Ratification of at least 55 Parties to the UNFCCC
 - Those who have ratified must represent at least 55% of CO₂-emissions in the Annex I-countries in 1990.

USA could not block entry into force 16 February



Taking stock

- ✎ Kyoto Protocol took more than 10 years from preparations started before COP 1
- ✎ KP creates a framework for putting a price on GHGs inside the Annex B and outside through the Clean Development Mechanism
- ✎ Most of the world's emissions are not covered
- ✎ Technology initiatives outside KP

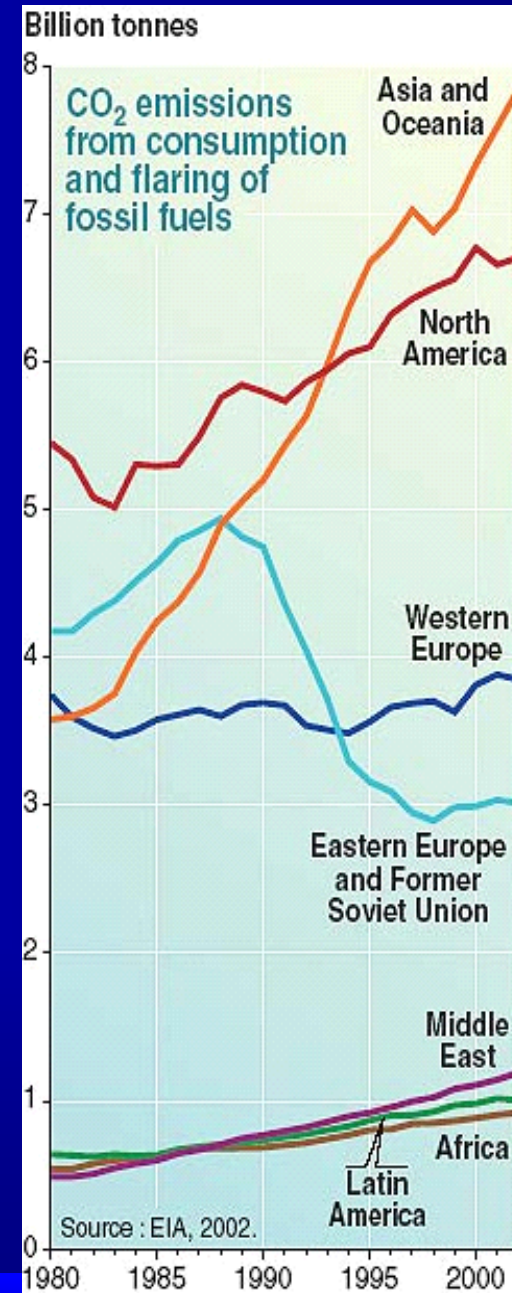


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Future

- Get a process started !
- Need USA, China and India inside
- Develop and implement technology – how ?
- Use valuable elements from UNFCCC and KP (M&R, market mechanisms incl. CDM)
- PAMs – standards ?
- Caps ?
 - Countries and/or sectors ?
 - Absolute or relative ?
- Adaptation – climate is changing !

