

# Issues in International Climate Change Negotiations

**MoEF-FICCI-TERI Conference on  
Climate Change: Issues & Opportunities,  
Chennai**

**Preety Bhandari  
July 13, 2002**



# Outline

- **History of negotiations**
  - **With special emphasis on Kyoto Protocol**
- **Issues/Limitations of the KP**
- **Developing country perspective**
  - **DC participation**

# The UNFCCC - Guiding Principles

- **Common but differentiated responsibility**
- **Recognition of growth in DC emissions to meet social and development needs**
- **DC participation contingent upon effective implementation of commitments by developed country Parties**
- **Annex I to reach “individually or jointly” 1990 emissions levels by 2000**

# COP-1

**April 1995 – First Conference of the Parties (COP 1) in Berlin launches a new round of negotiations on a "protocol or other legal instrument"**

- **No new commitments for non-Annex I countries**
- **Introduction of Activities Implemented Jointly (AIJ) – voluntary cooperative GHG mitigation projects**

# COP-2

**July 1996 – COP-2 in Geneva takes note of the Geneva Ministerial Declaration, which acts as a further impetus to the on-going negotiations**

- **Science provides basis for urgently strengthening action**
- **World faces significant, often adverse impacts from climate change**
- **Legally-binding significant overall reductions in GHG emissions should be negotiated by the next COP**

# Kyoto Protocol

- **December 1997 – COP-3 meeting in Kyoto adopts the Kyoto Protocol to the UN Framework Convention on Climate Change**
- **March 1998 – The Kyoto Protocol is opened for signature at UN headquarters in New York.**
- **84 signatures over a one-year period (As of 14 June 2002, ratified by 22 Annex I and 52 Non-Annex I countries.)**

# Kyoto Protocol

- **6 GHGs covered**
- **Overall emission reductions of 5.2% over 1990 levels by Annex I parties (Annex B of the KP)**
- **Differentiated targets among Annex I (e.g. Japan 6%, US 7% reduction, Australia 108% of 1990 levels)**
- **First commitment period or Budget period (2008-12)**

# .....Revisiting Kyoto

- **Protocol: Annex B will take lead in limiting GHG emissions**
- **Emission targets for ICs which can be fulfilled using the flexibility mechanisms**
  - **Joint Implementation**
  - **CDM**
  - **Emissions trading**
- **Kyoto mechanisms expected to lower the cost of meeting commitments**

# Kyoto mechanisms: Joint Implementation

- **Exchange of emissions reduction units (between legal entities with government approval)**
- **Between developed countries**
- **Project based**
- **Price negotiated bilaterally**

# Emissions trading

- **Exchange of emissions quotas between national governments**
- **Between Annex B parties**
- **Not project based**
- **Market and/or bilaterally determined price**
- **Effective during the commitment period**

# Clean Development Mechanism

- Exchange of certified emissions reduction (CERs)
- Between developed and developing countries (government / private sector)
- Project based
- Reduction at lower cost by investing in DCs where MCA lower

# ...CDM

- CERs can be acquired from 2000 and banked to meet emissions reductions starting in 2008-2012
- Part of the proceeds to be directed towards adaptation measures in vulnerable developing countries

# Buenos Aires Plan of Action

**November 1998 – "Buenos Aires Plan of Action" adopted by COP-4 meeting in Buenos Aires**

- **Programme of work on the operational details of the Kyoto Protocol and the implementation of the Convention**
- **COP-6 set as the deadline for adopting many important decisions**

# COP-6

- **November 2000 – COP-6 meets in The Hague, but fails to agree on a package of decisions under the Buenos Aires Plan of Action**
- **July 2001 – COP-6 part II (or COP-6b) resumes in Bonn. Parties adopt the "Bonn Agreements"**
- **Political consensus on many key issues under the Buenos Aires Plan of Action**

# COP-7

- **October/November 2001 – COP-7 in Marrakesh finalizes and formally adopts COP-6b decisions.**
- **October/November 2002 – COP-8 in New Delhi.**

# **Bonn-Marrakesh agreement: Key decisions on CDM**

- **Prompt start for CDM**
- **Host country decision on sustainable development benefits of project - government approval**
- **Nuclear not allowed**
- **Afforestation and reforestation projects eligible (subject to cap)**
- **2% share of proceeds to adaptation fund**

# Bonn-Marrakesh Accords: Fast-track CDM

- Simplified procedures for small projects
- Rationale - project size, upfront costs, transactions costs of decentralized projects, SD benefits, regional equity
- RE upto 15 MW
- Energy efficiency improvement activities to reduce energy consumption on ss/dd side by up to 15 GWh per year
- Other project activities that both reduce emissions by sources and directly emit <15 KT of CO<sub>2</sub>-eq annually

# SHORT TERM

**Kyoto Protocol**

**Ratification**

## **Strengths**

- Consensus
- Flexibility
- Differentiated responsibility

## **Limitations**

- Adequacy of QELRCs
- Hot air
- Resource & technology transfer
- No DC commitment

# UNFCCC & DEVELOPING COUNTRIES

- **Annex II Parties “shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the full incremental costs of implementing measures..... that are agreed between developing country Parties and the international entity”. (Article 4.3)**
- **“The extent to which developing country Parties will effectively implement their commitments under the convention will depend upon the effective implementation by the developed country Parties of their commitments under the convention related to financial resources and to transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing countries Parties” (Article 4.7).**

# Developing Country Perspective

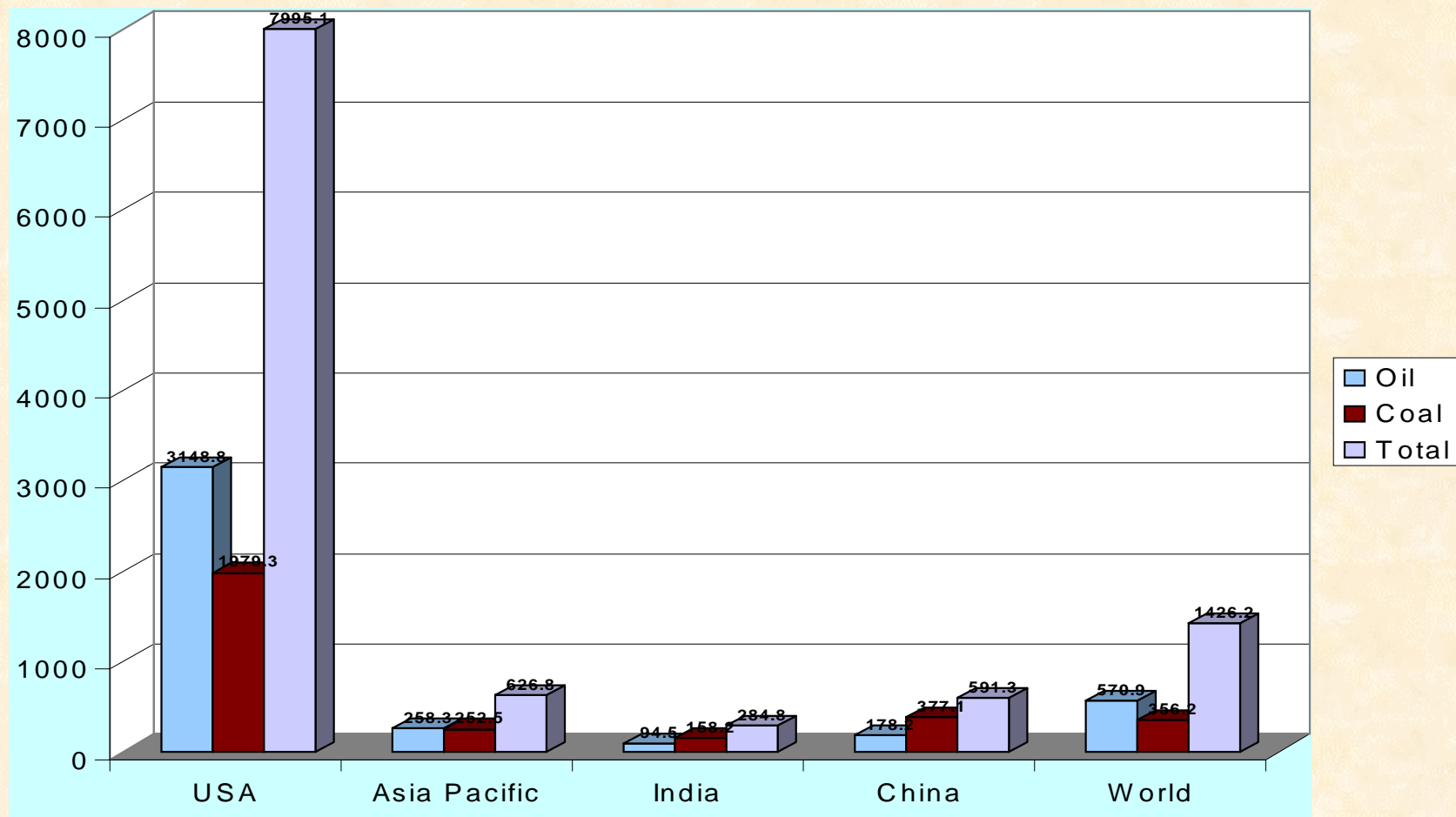
# US stand

**President Bush opposes the Kyoto Protocol**

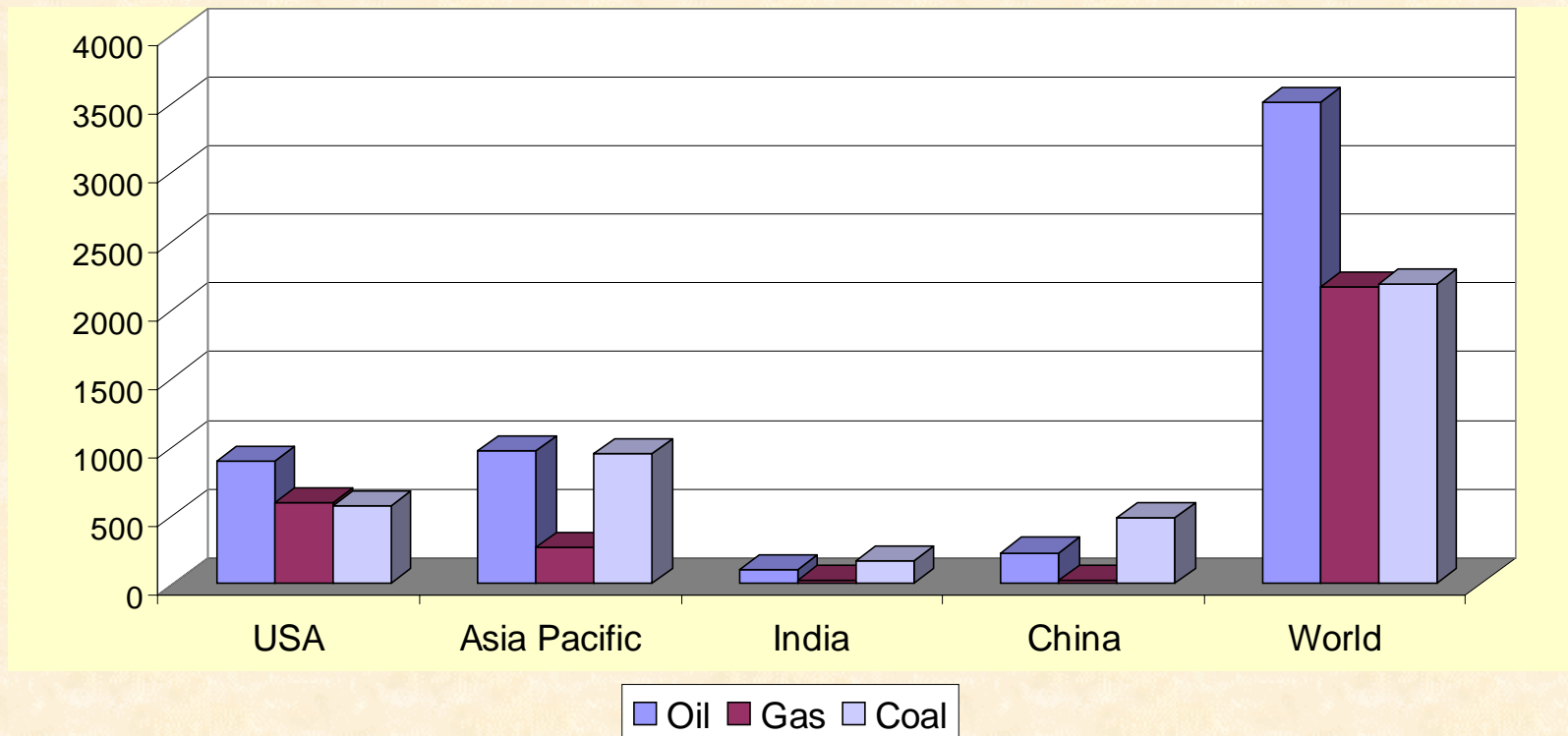
- **Exempts 80 % of the world - unfair & ineffective**
- **Harms US consumers**
- **Incomplete state of scientific knowledge**

**US has refused to ratify the Kyoto Protocol**

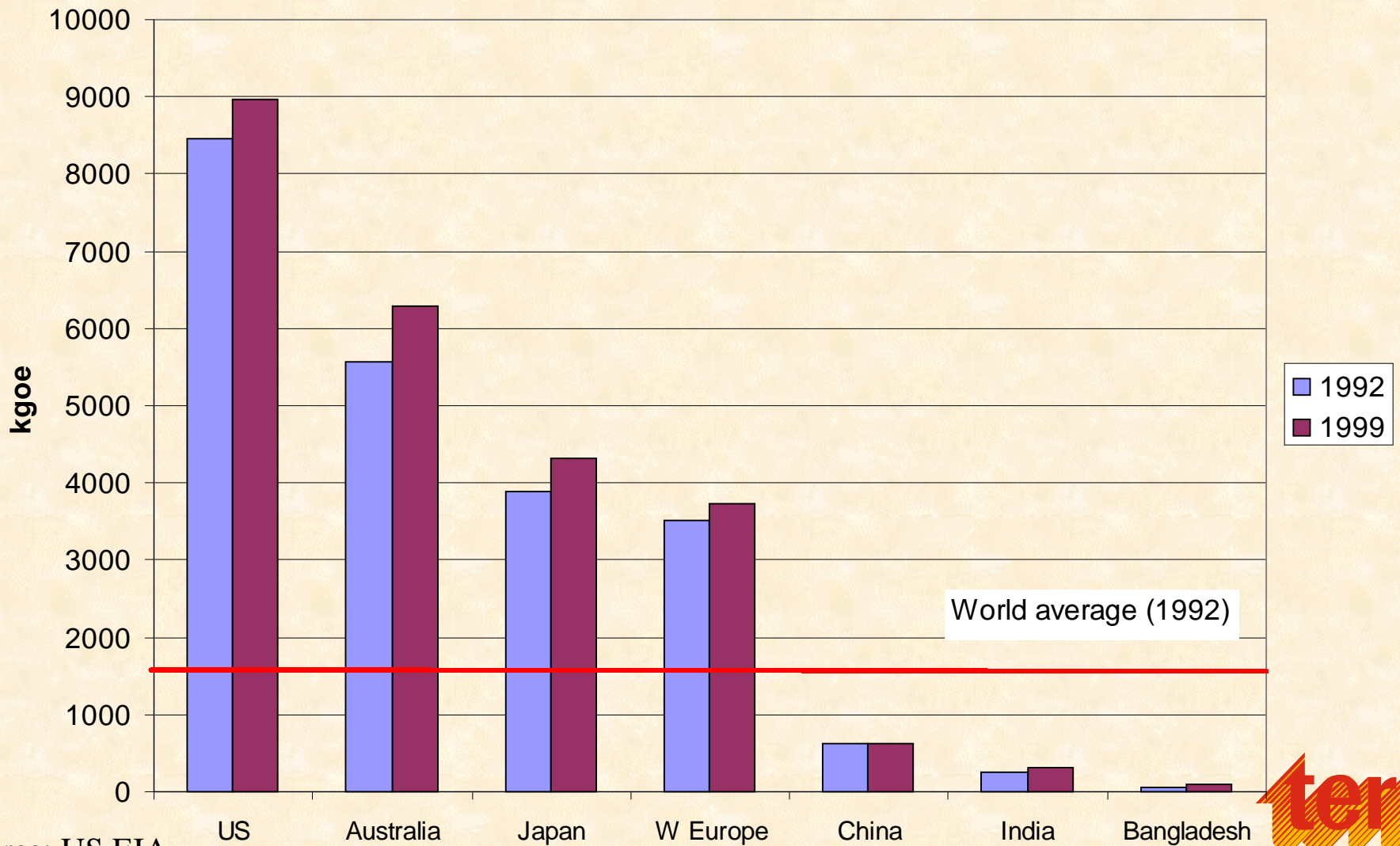
# Per capita energy consumption, 2000 (kgoe)



# Primary energy consumption in 2000 (mtoe)



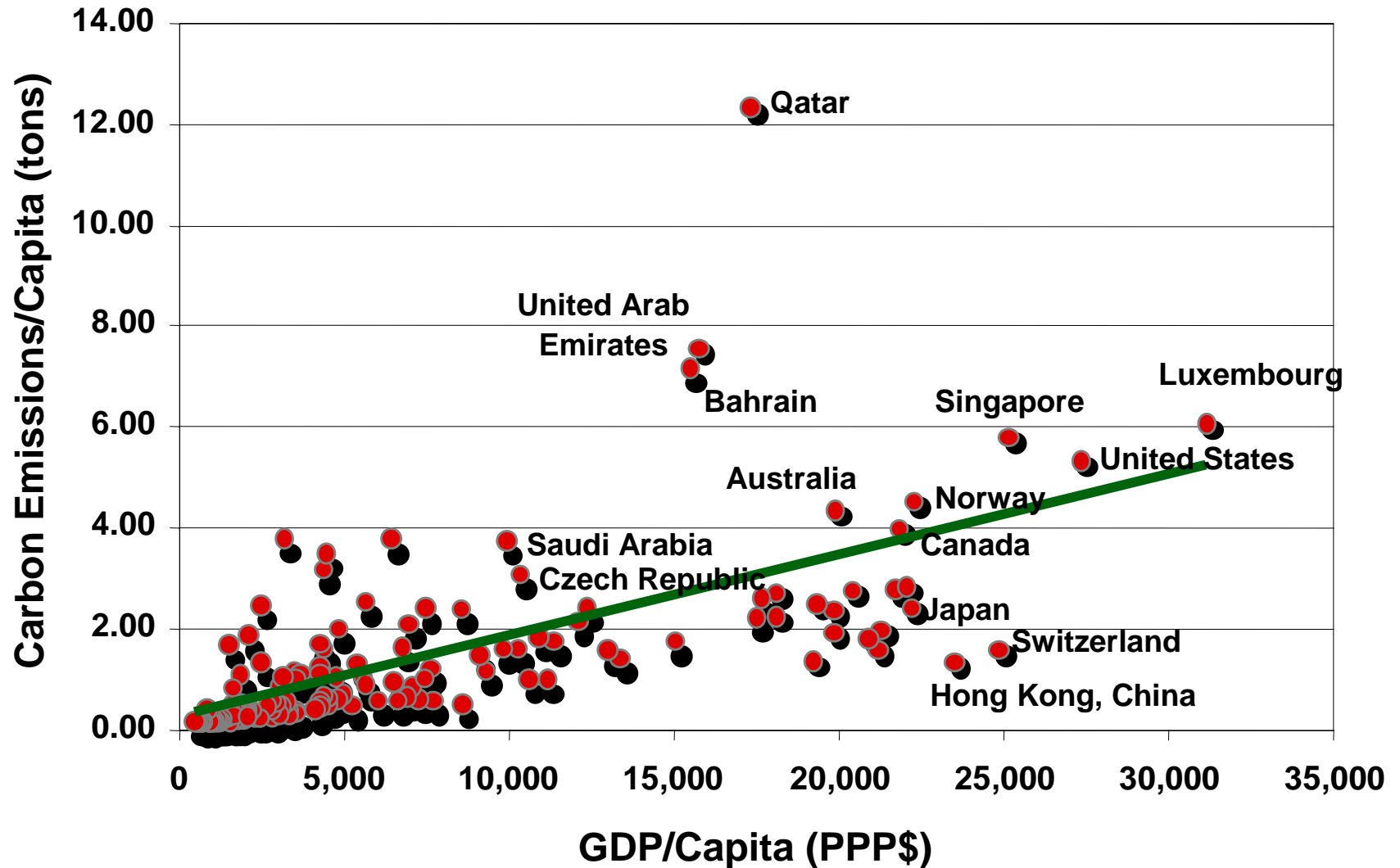
# Per capita primary energy consumption 1992 v/s 1999



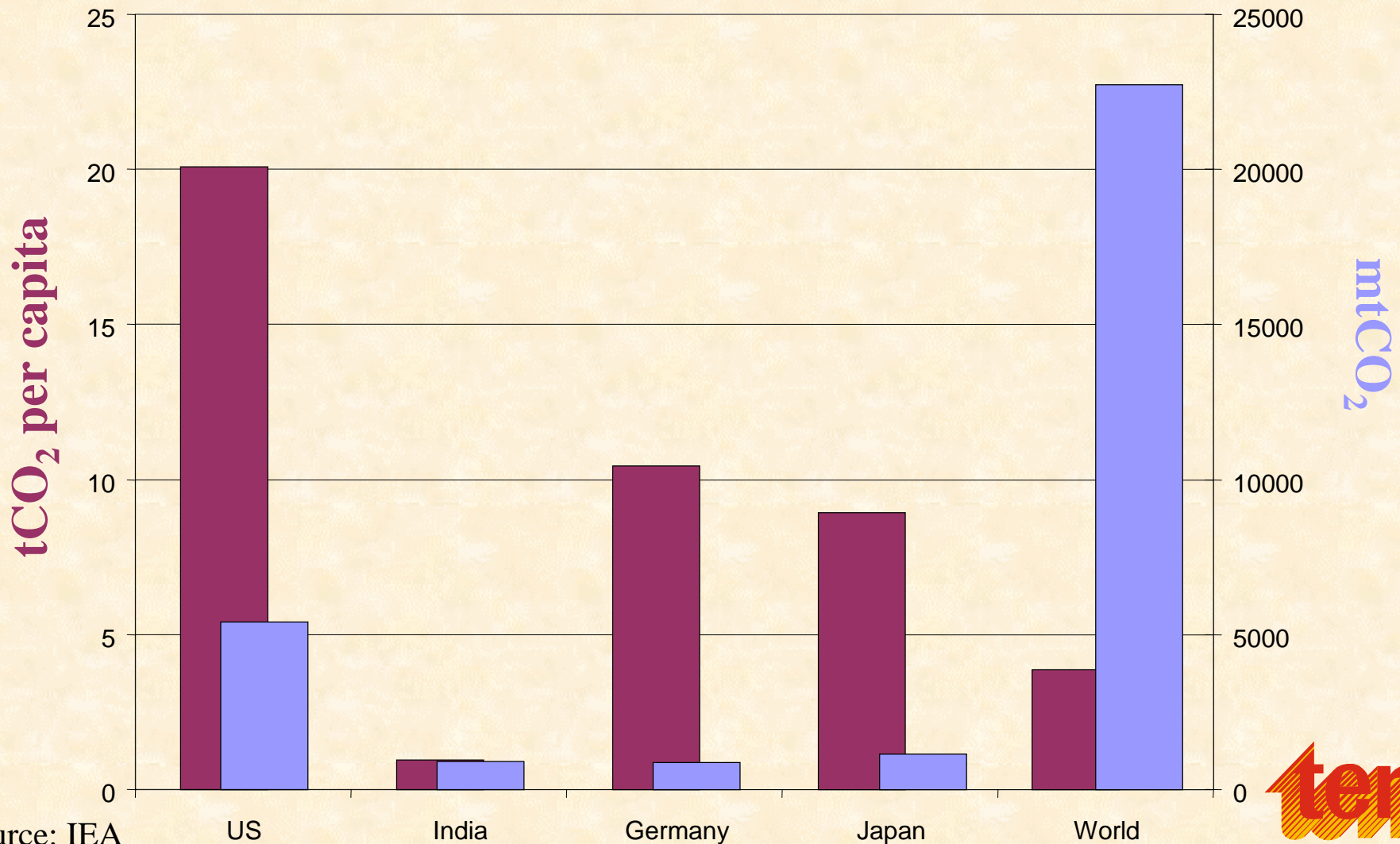
Source: US EIA



# Per Capita Carbon Emissions & Income



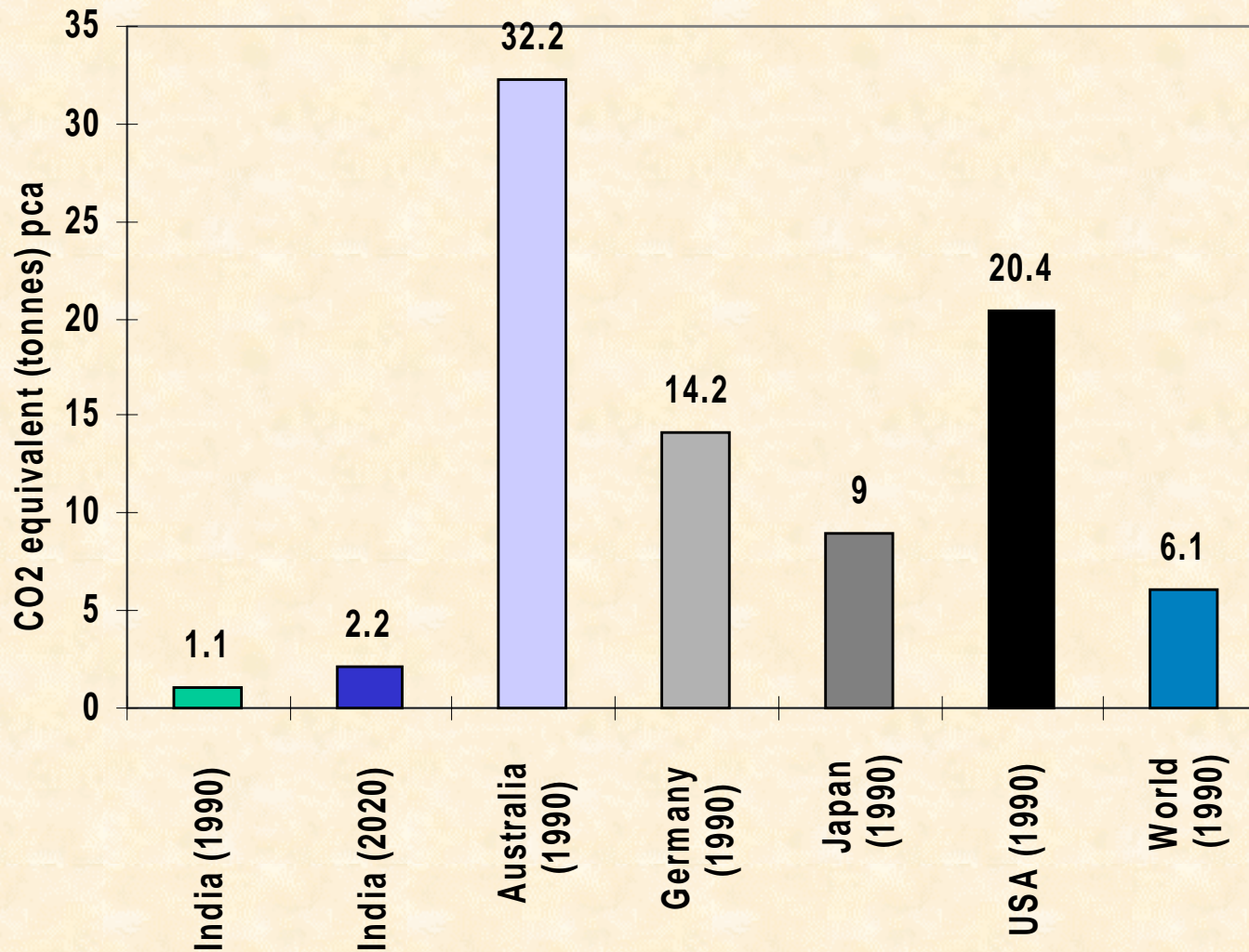
# Total and per capita greenhouse gas emissions from fuel combustion (1998)



Source: IEA



# Per capita CO<sub>2</sub> emissions



# Geographical distribution of impacts

## DCs more vulnerable to climate change

- dependence on climate-sensitive sectors
- additional stress
- low technical, financial, and institutional coping capacity

## Aggregate monetary damage for 2 x CO<sub>2</sub> (annual damages as % of GDP)

- |                        |        |
|------------------------|--------|
| • OECD countries       | 1-2%   |
| • Developing countries | 2-9%   |
| • World                | 1.5-2% |

# Developing country participation

# National Development Objectives

- **Poverty removal/employment generation**
- **Food sufficiency/self-reliance**
- **Drinking water, primary health etc,**
- **Containing population growth**
- **Efficiency/long-term sustainability**
- **Technology development/Renewable Energy**
- **Power development**
- **Public transport**
- **Higher industrial competitiveness**
- **Sustainable forestry**

# Energy sector characteristics

- **Persistent shortages**
  - **demand > supply**
- **High import dependence - oil, BOP pressures**
- **Poor productivity/efficiency**
- **Poor internal rate of return**
- **Limited energy alternatives for poor**
- **Subsidies**

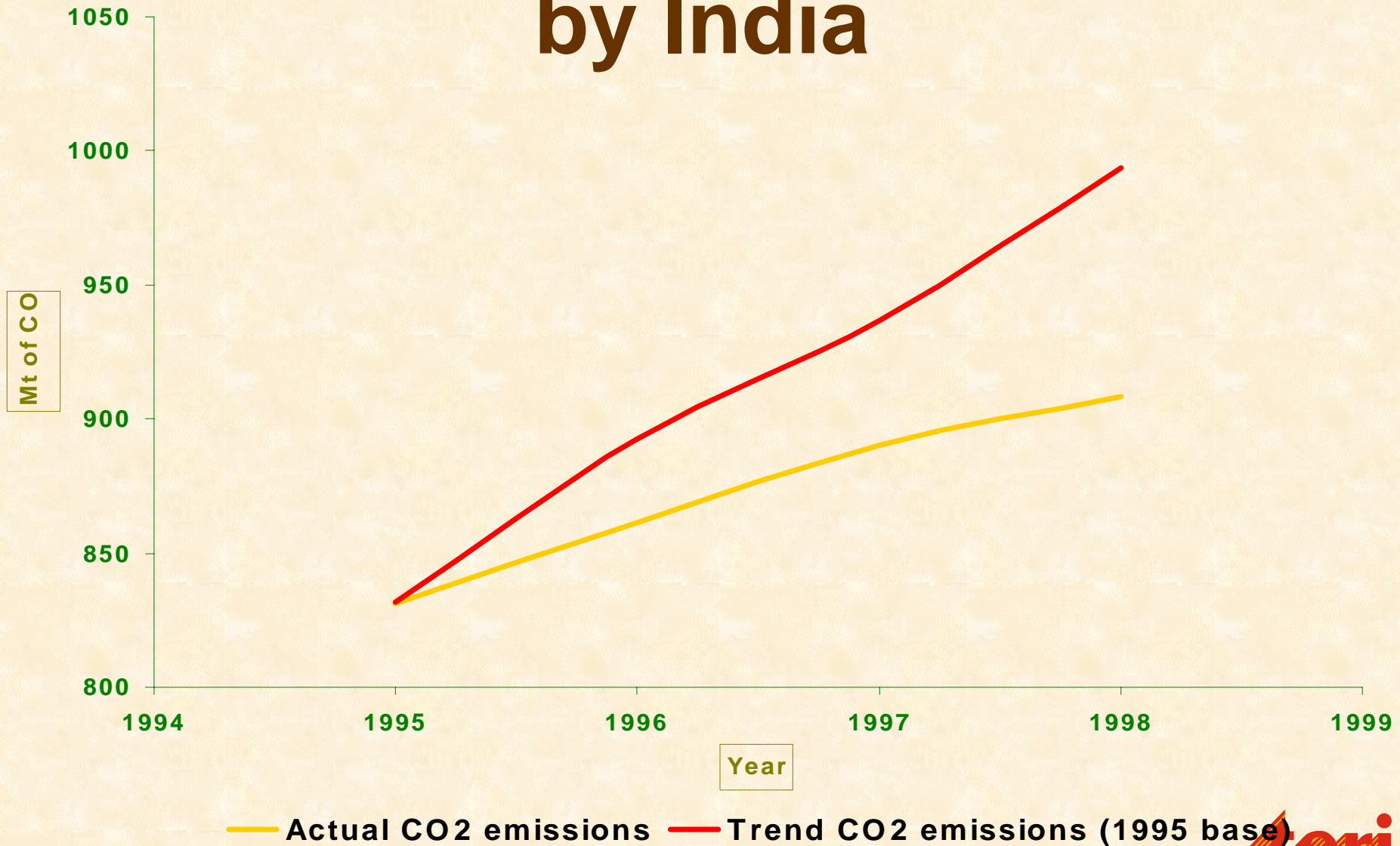
# Ongoing Initiatives

- **Energy sector reforms**
  - deregulation of the administered price mechanism - power, oil & coal (removal of subsidies) → market based pricing
  - private sector participation - power, oil & coal
- **Renewable energy programmes**
- **Sector level reforms**
- **Regional co-operation in energy**

# Reforms and the environment

- **Promotion of RETs**
- **Incentives to efficiency improvements**
- **Waste recycling / cogeneration**
- **Clean coal technologies**
- **Coal washing and fly-ash handling**
- **Dismantling of the APM / Re-structuring**
- **Cabinet resolution to participate in CDM**

# “Meaningful participation” by India



# Marrakesh Accord

Successful conclusion of negotiations on operational details of KP but  
Dilution of Kyoto commitments

**0.4% of 1990 Annex I GHG emissions**

**Domestic action**

**+ CDM + JI**

**21.1 mtC**

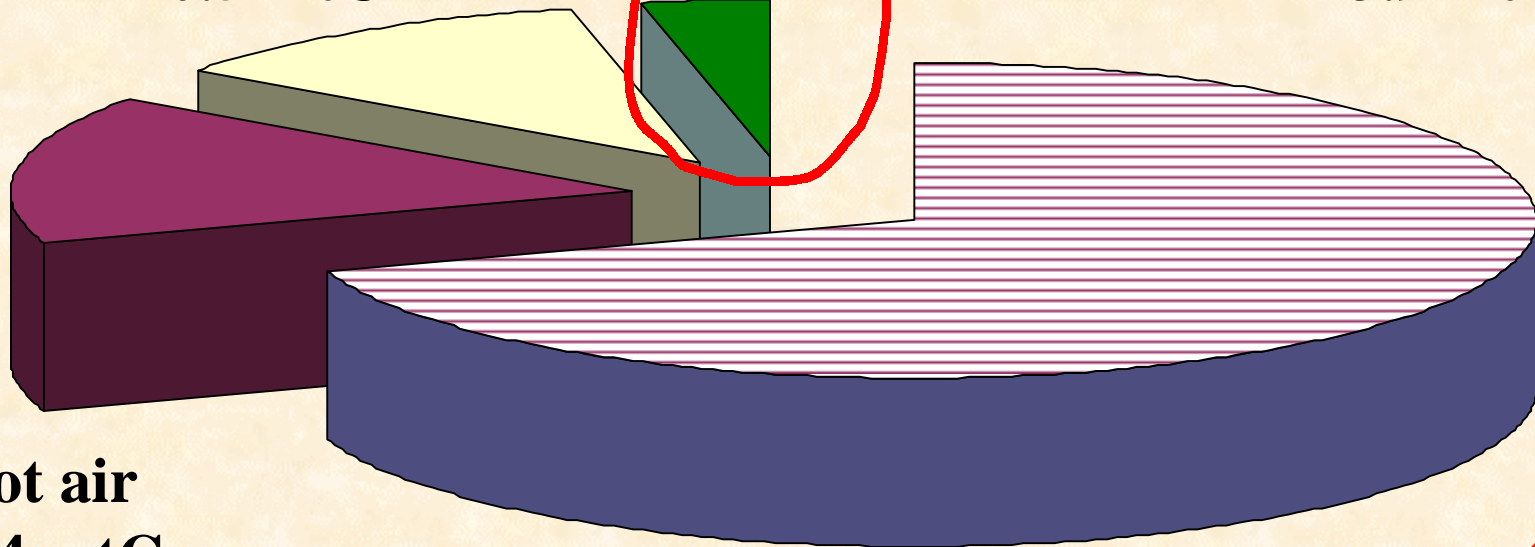
**US withdrawal**

**423.9 mtC**

**Forest management**

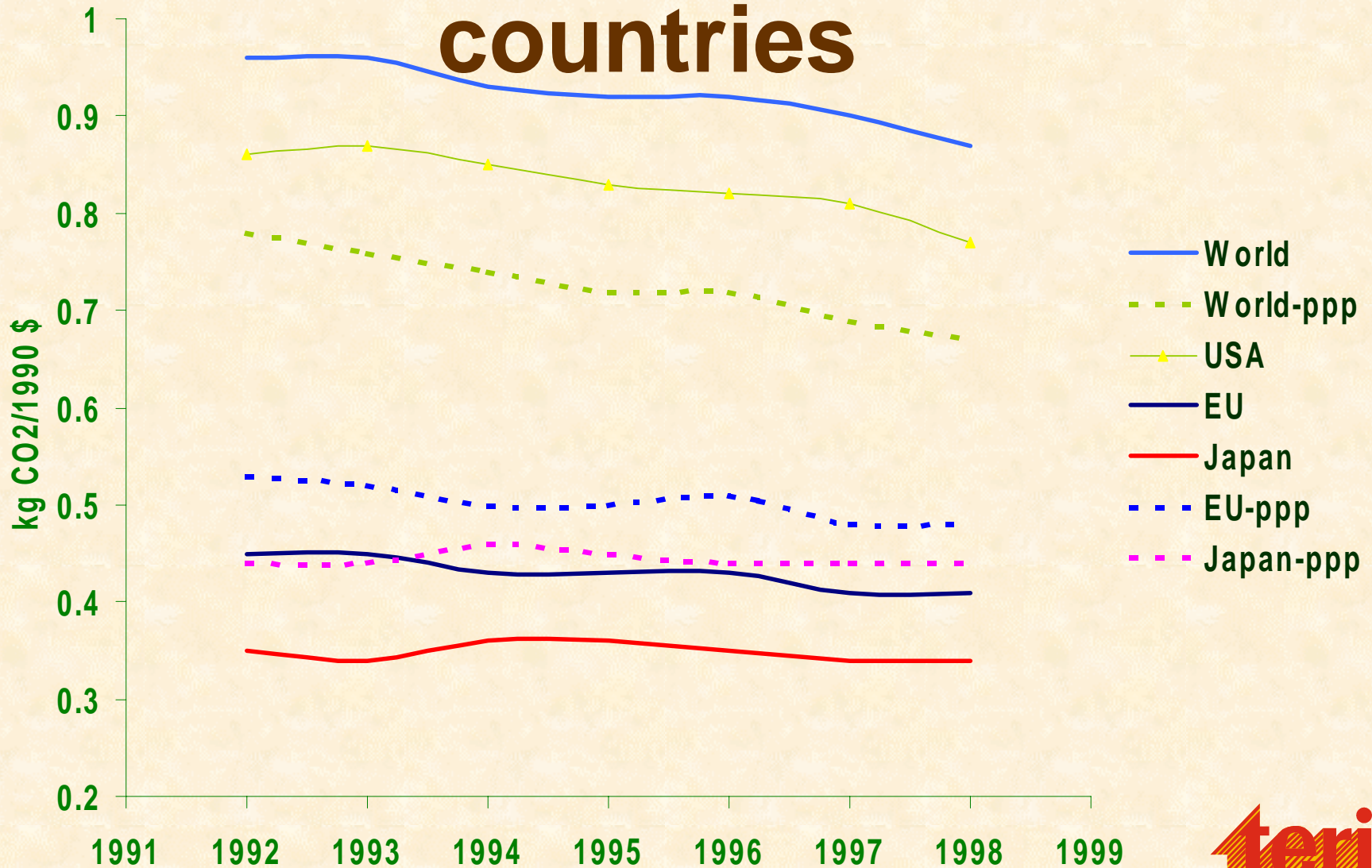
**70.5 mtC**

**Hot air**  
**92.4 mtC**

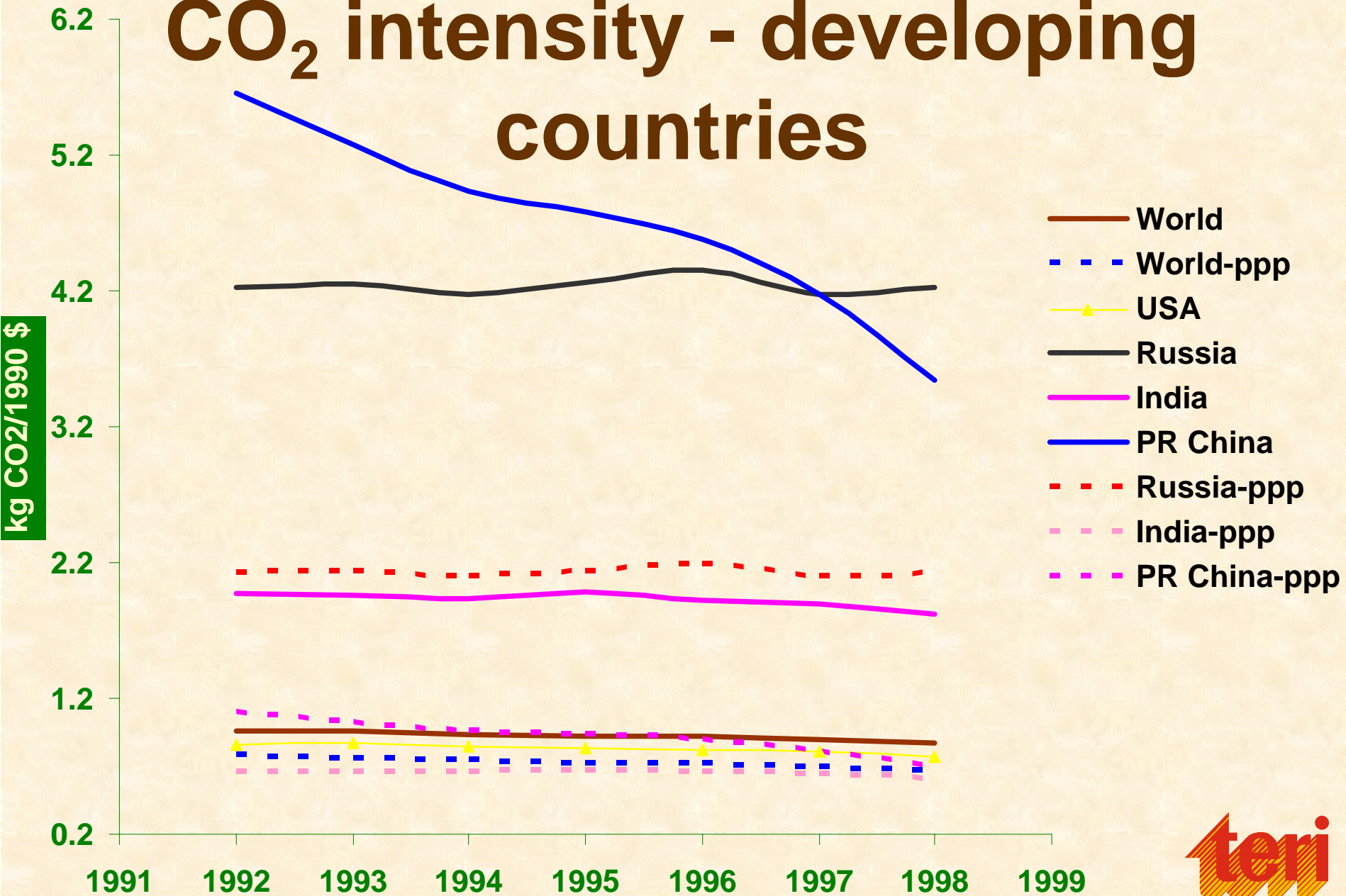


**Total estimated Kyoto reduction: 607.9 MtC**

# CO<sub>2</sub> intensity - developed countries



# CO<sub>2</sub> intensity - developing countries



# Ratification of the Kyoto Protocol

# Ratification

- **Ratification requires**
  - **at least 55 countries**
  - **Annex I parties ratifying should account for 55 % of 1990 (or base year) emissions from Annex I**
- **US emissions in 1990 = 33% of Annex I emissions**

# Kyoto Protocol ratification

- To come into force Kyoto Protocol needs to be ratified by at least 55 countries accounting for 55 % of 1990 Annex I emissions
- Ratified by 74 countries so far (including EU and Japan), accounting for 35.8% of 1990 Annex I emissions
- USA accounting for 35% of Annex I emissions has refused to ratify

# Annex I shares in 1990

	Share in emissions, 1990	Cumulative share
US	33.3%	33.3%
Russian Fed.*	16.8%	50.1%
Japan	6.7%	56.8%
Germany	6.7%	63.4%
Ukraine*	5.1%	68.5%
UK	4.1%	72.6%
Canada	3.4%	76.0%
Poland**	3.1%	79.1%
France	3.1%	82.1%
Italy	2.9%	85.0%

Source: Estimated from FCCC/SBT/2000/11

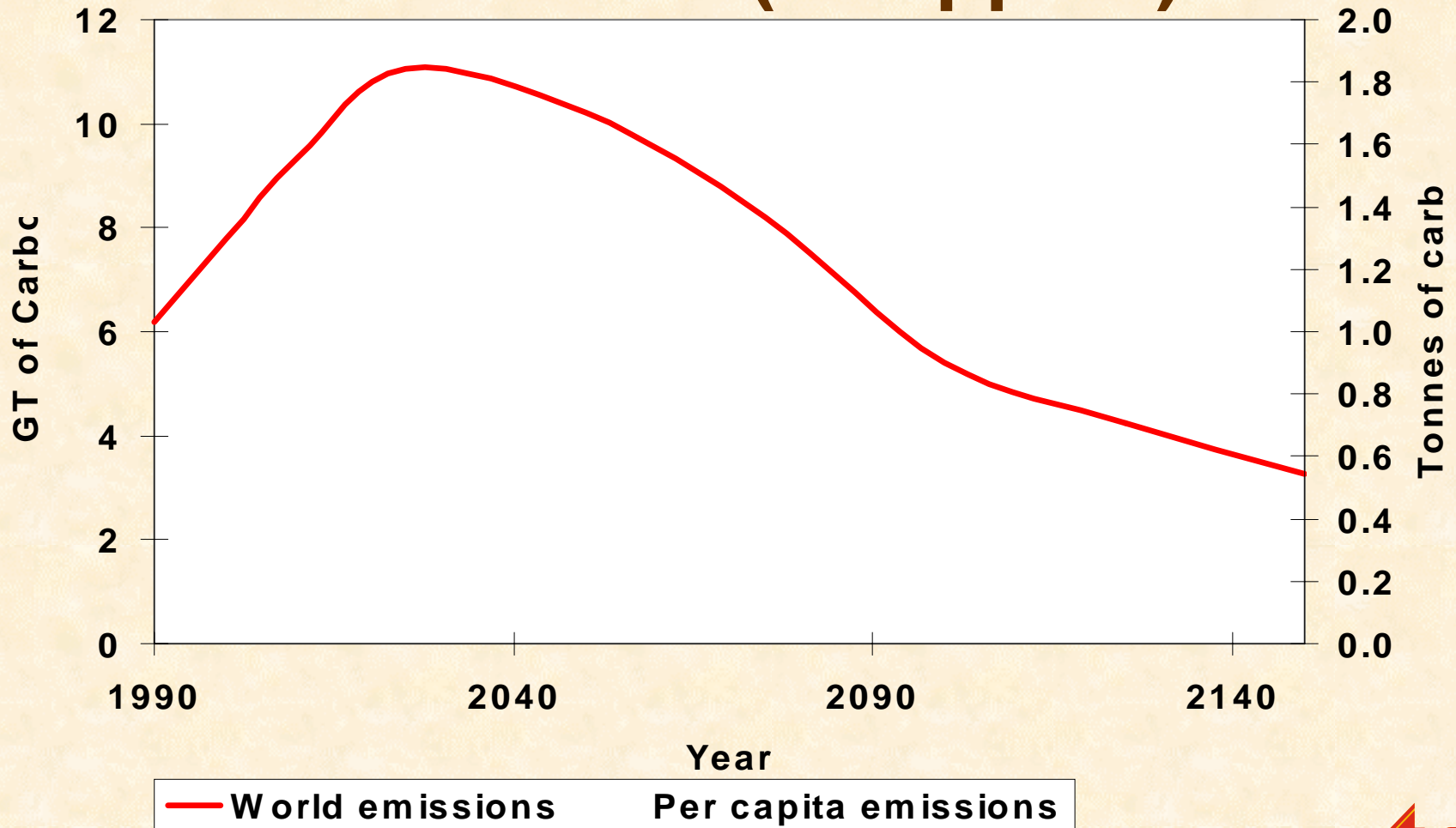
# LONG TERM VISION

- **Equity**
- **Efficiency**
- **Sustainable development**

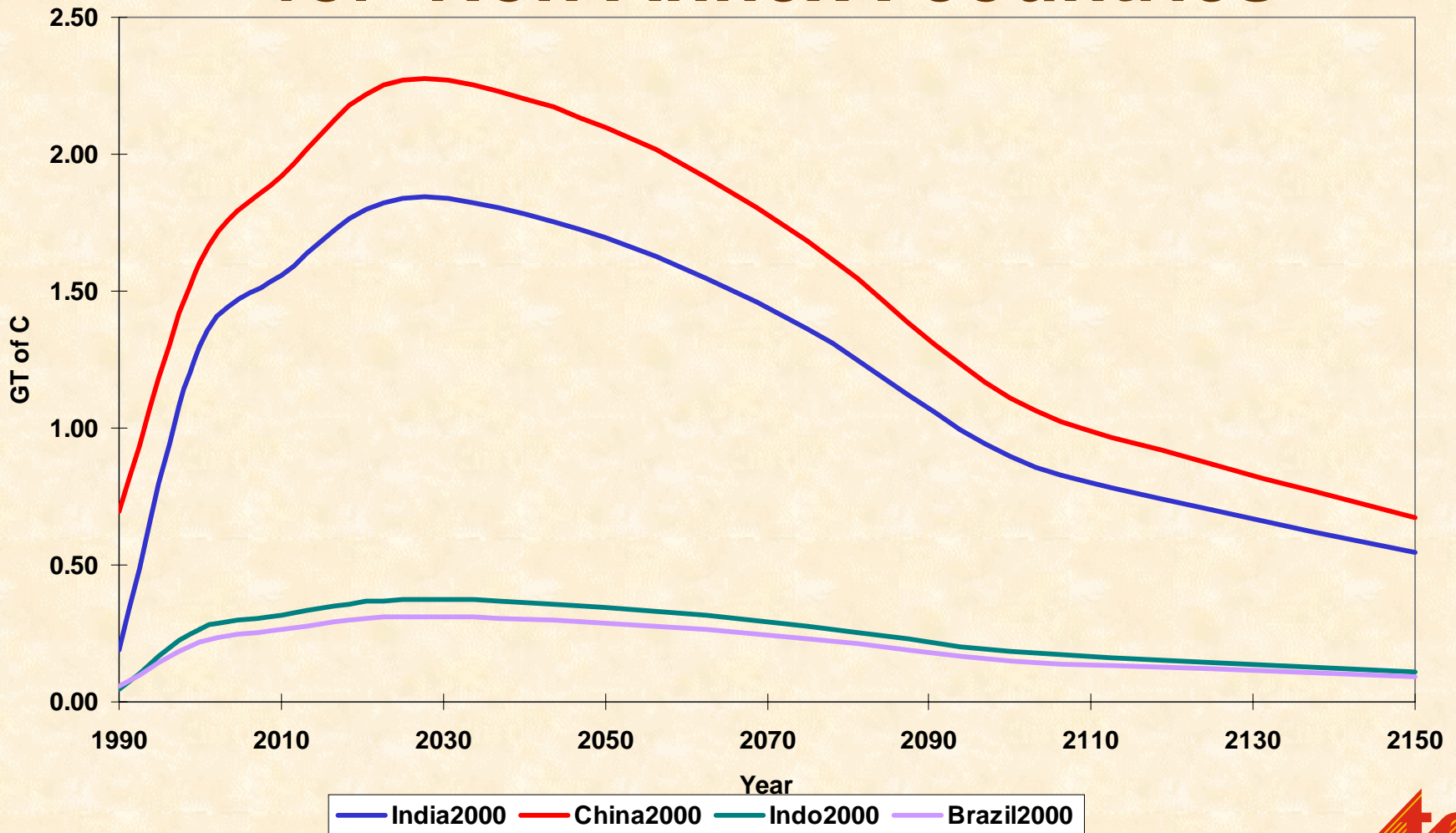
*Principles for agreement*

- **Per capita emissions**
- **Per capita income**
- **GHG intensity**
- **Combination of the above**

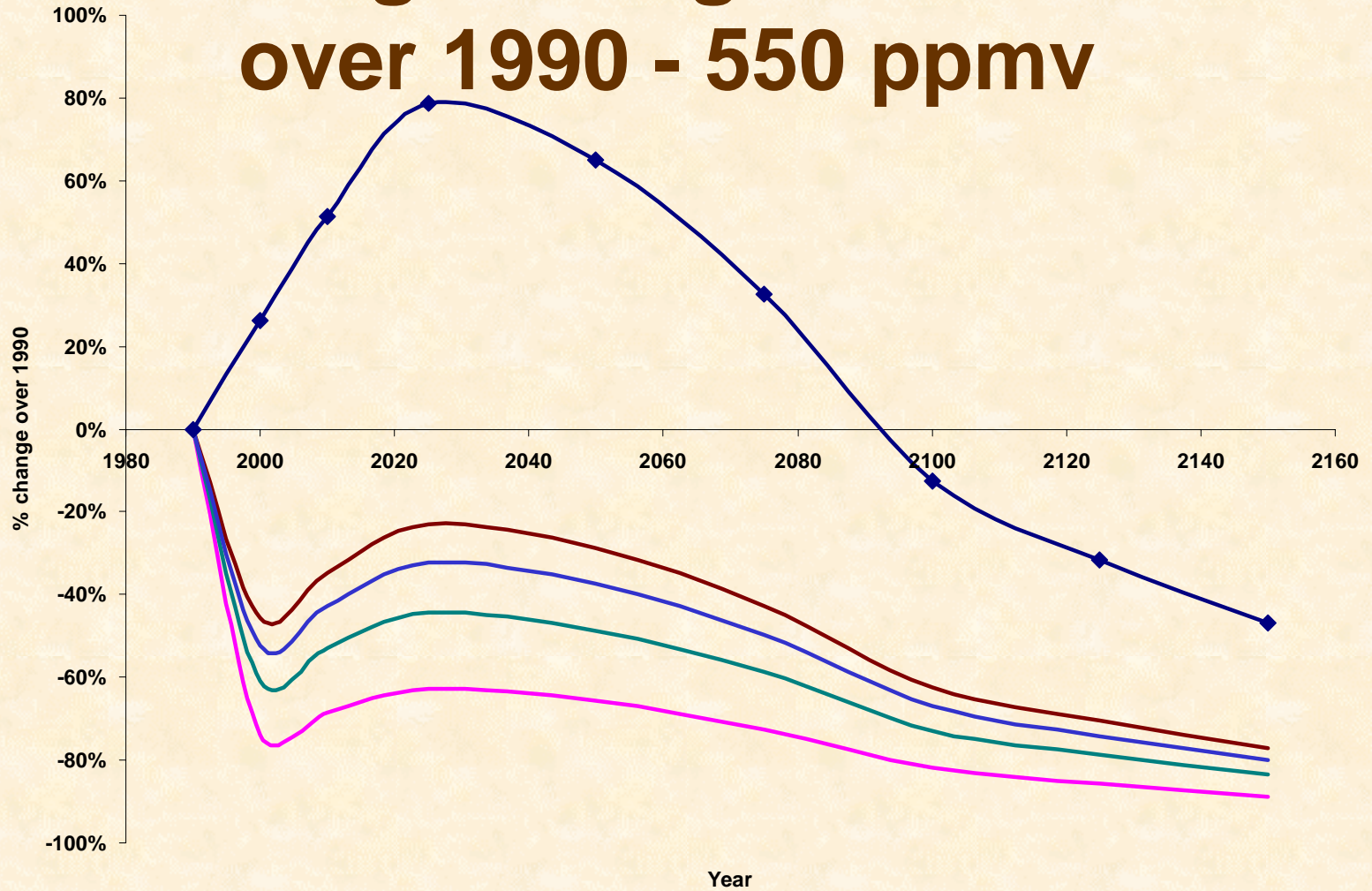
# Emissions trajectory & per capita emissions (550 ppmv)



# Per capita emissions entitlements for Non Annex I countries



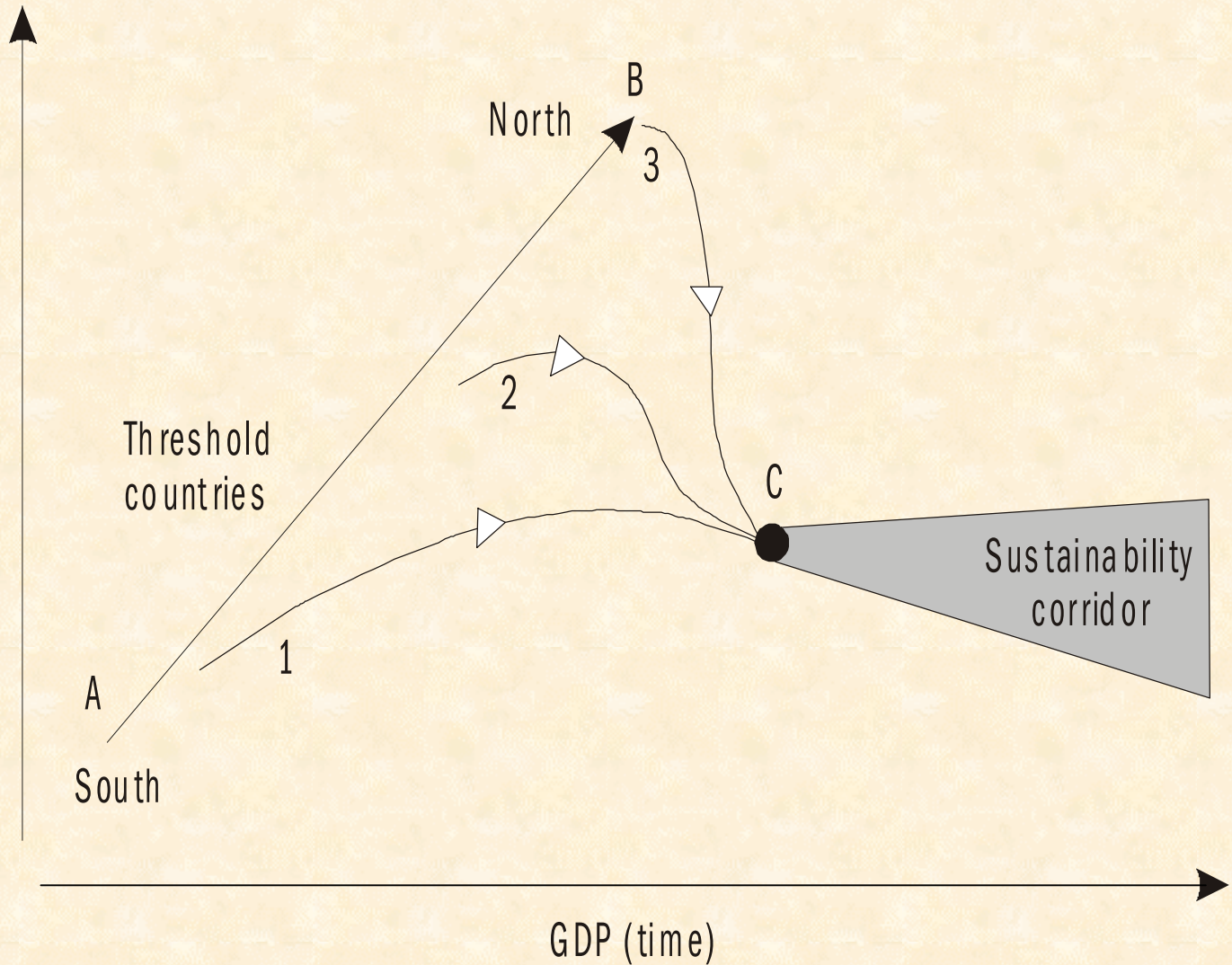
# Percentage change in emissions over 1990 - 550 ppmv



◆ World-Red1990    ◆ USA-Red1990    ◆ Japan-Red1990    ◆ Germany-Red1990    ◆ UK-Red1990



# Sustainability Corridor



# Conclusions

- **Protocol a major achievement**
- **QELRCs inadequate**
- **Non-ratification by the US should not overwhelm the process**

# Conclusions

- CDM projects equivalent to “meaningful participation” by DCs
  - Quick start of small projects
- Question for DCs participation is *not whether* but *when*
- Long term vision on stabilisation
  - technological innovation
  - change in lifestyles
- Move from burden sharing to initiative sharing