

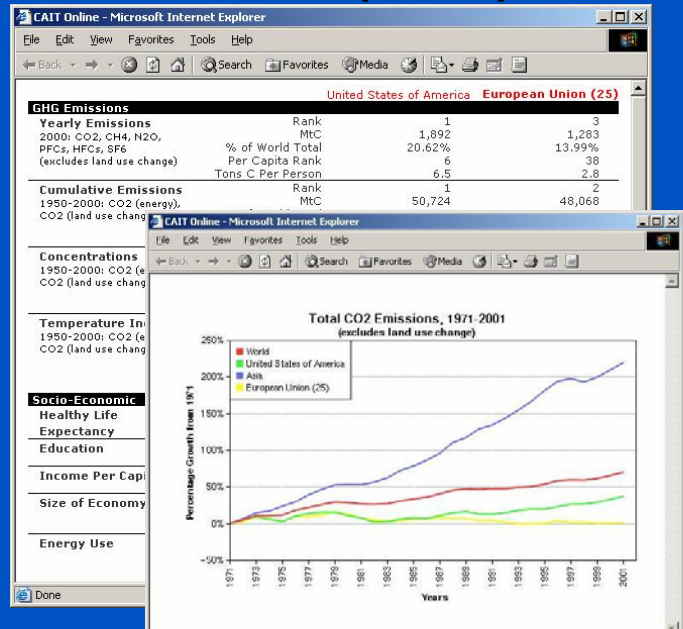
Climate Analysis Indicators Tool (CAIT)

version 2.0

CCAP Future Actions Dialogue

Mexico City, November 2004

Kevin A. Baumert
World Resources Institute
kbaumert@wri.org



Overview

- Introduction to CAIT
- Insights from the Data
- Demonstration of CAIT
- Questions & Discussion

Introduction to CAIT

- Interactive database of GHGs & other policy-relevant indicators
- User-friendly interface includes:
 - All major GHGs and sources
 - Data for 186 countries (most UNFCCC Parties)
 - Data for geographic, UNFCCC, and other Regions
 - Analysis tools (e.g., trend, sector, or gas analysis)
- Purposes
 - Promote greater access to information
 - Support decision-making processes and help build capacity
 - Provide common platform for data and analysis
- Policy neutral



Introduction to CAIT

- Data sources include:
 - International Energy Agency (fossil fuels)
 - CDIAC (cement and fossil fuels)
 - U.S. EIA (gas flaring and fossil fuels)
 - U.S. EPA (non-CO2)
 - EDGAR (non-CO2)
 - Houghton (land use change and forestry)
 - UNFCCC (all GHGs)
 - World Bank, UNDP, WHO, etc. (socio-economic data)



Insights from the Data

- GHG Emissions, Population, GDP
- Gases
- Sectors
- Per Capita Emissions
- Historical Emissions
- Projected Emissions

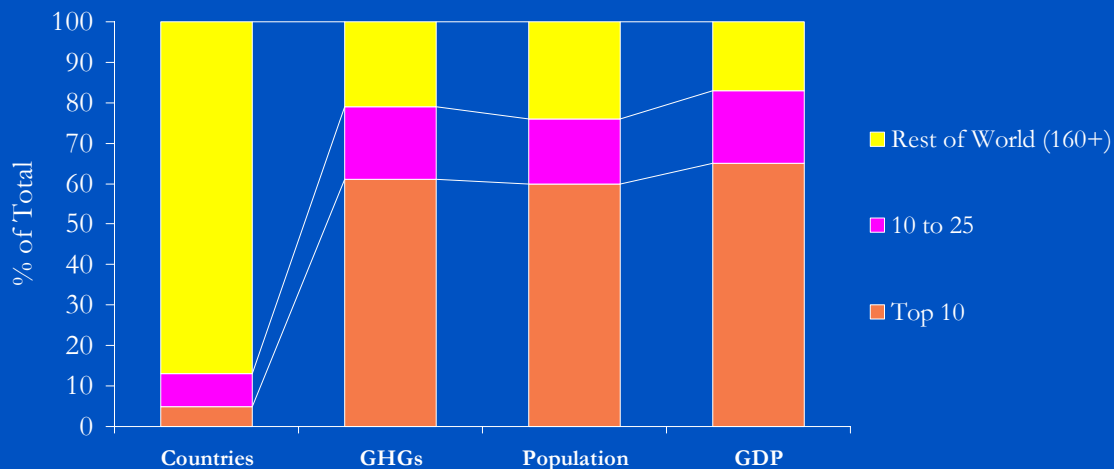
For more information, see forthcoming report from Pew Center on Global Climate Change (available at COP-10).



WORLD RESOURCES INSTITUTE

GHG Emissions, Population, GDP

- A relatively small number of countries produce a large majority of GHG emissions. Most large emitters are also those with large populations or economies.

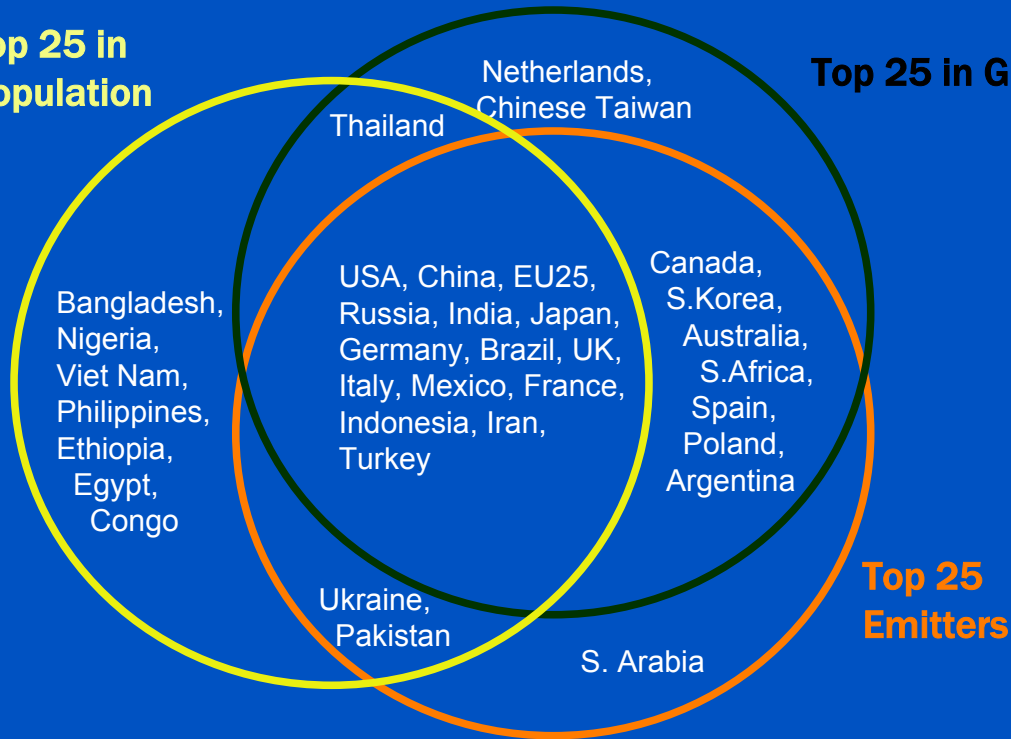


WORLD RESOURCES INSTITUTE

Top 25 Overlap

Top 25 in Population

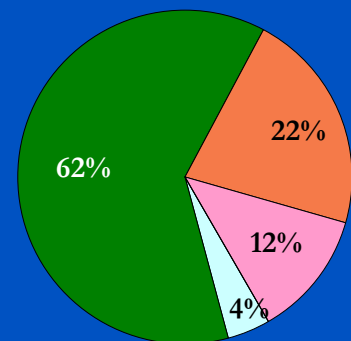
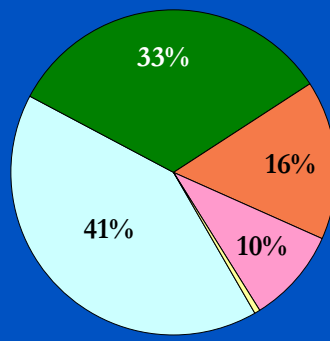
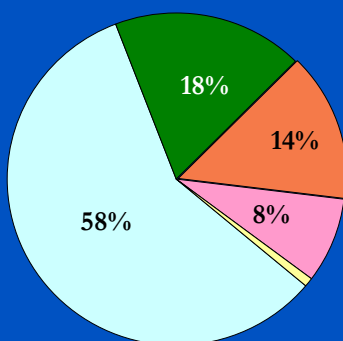
Top 25 in GDP



Land-Use Change and Non-CO2 Gases

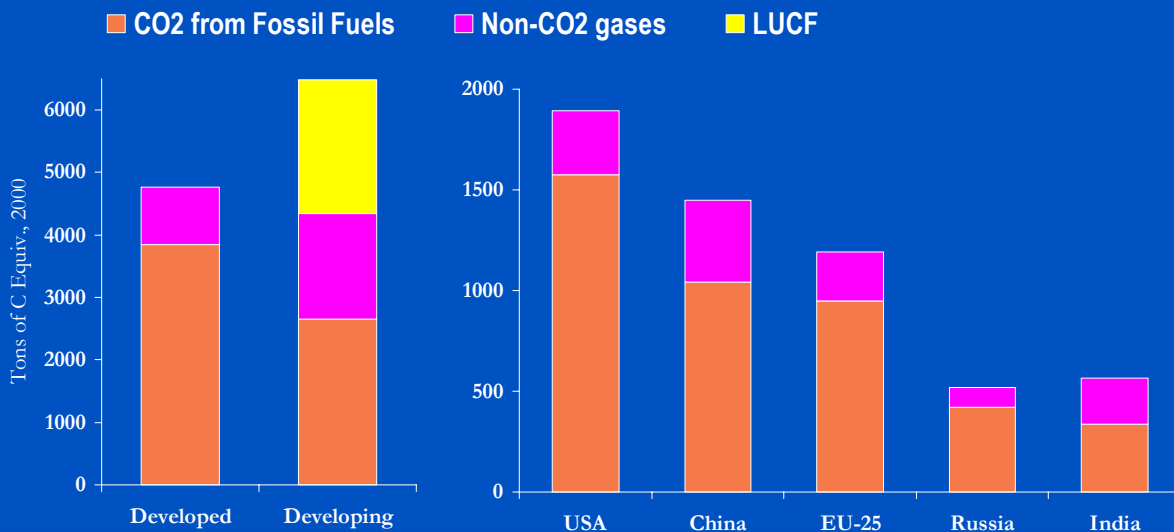
- CO2 from fossil fuels is the largest GHG emission source. But LUCF and non-CO2 together account for about 40 percent of global emissions.
- Uncertainties in LUCF and non-CO2 are high

■ CO2 Fossil Fuels
 ■ CO2 Land Use Change
 ■ CH4
 ■ N2O
 ■ F-Gases



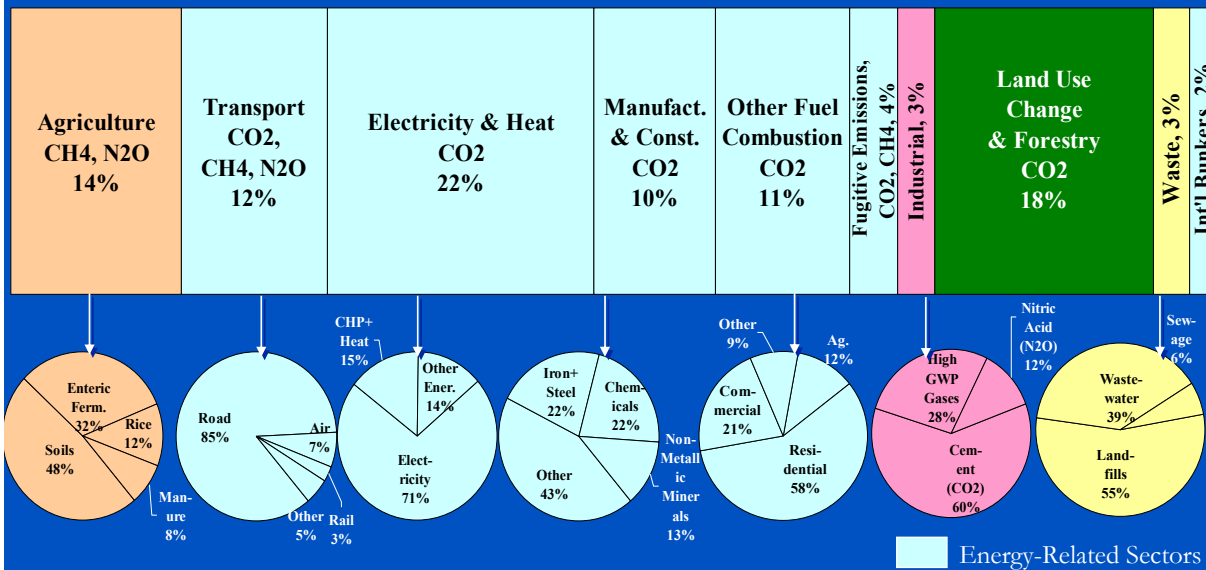
Land-Use Change and Non-CO2 Gases

- Inclusion of different gases and sources alters the North-South balance



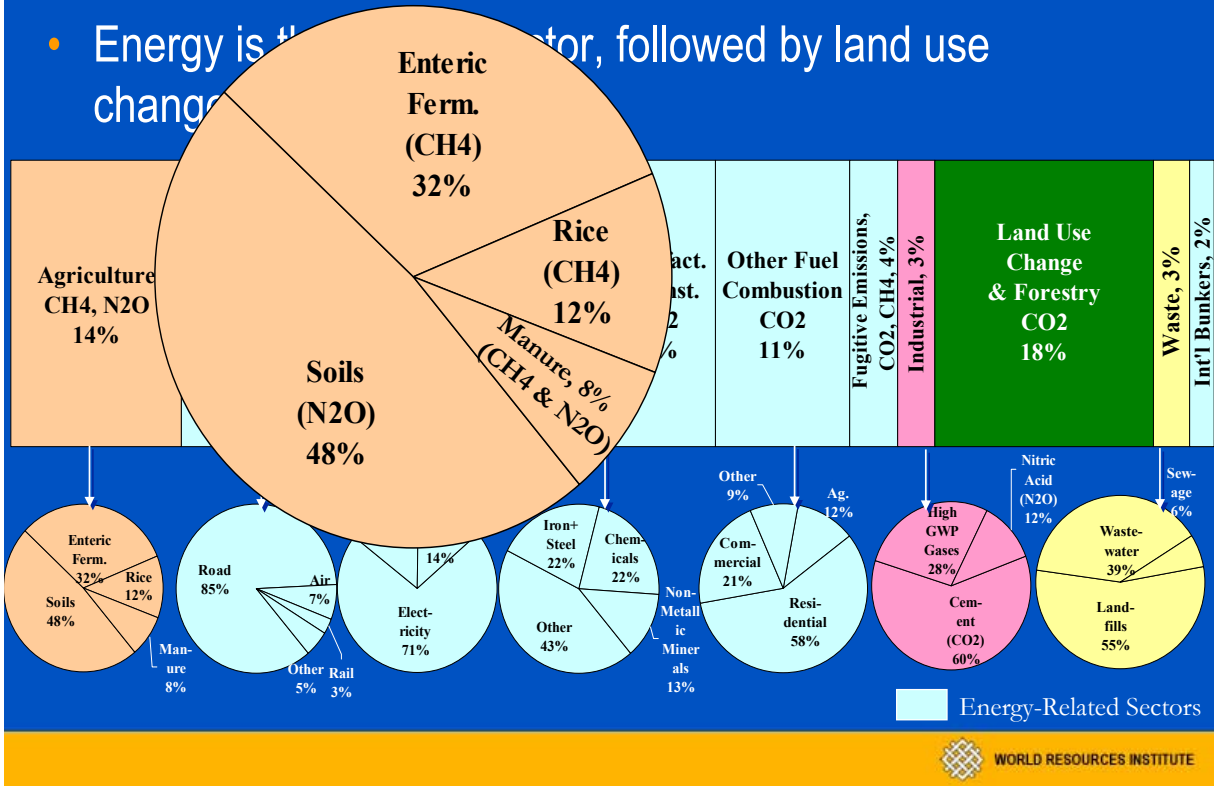
GHGs by Sector

- Energy is the largest sector, followed by land use change and agriculture.



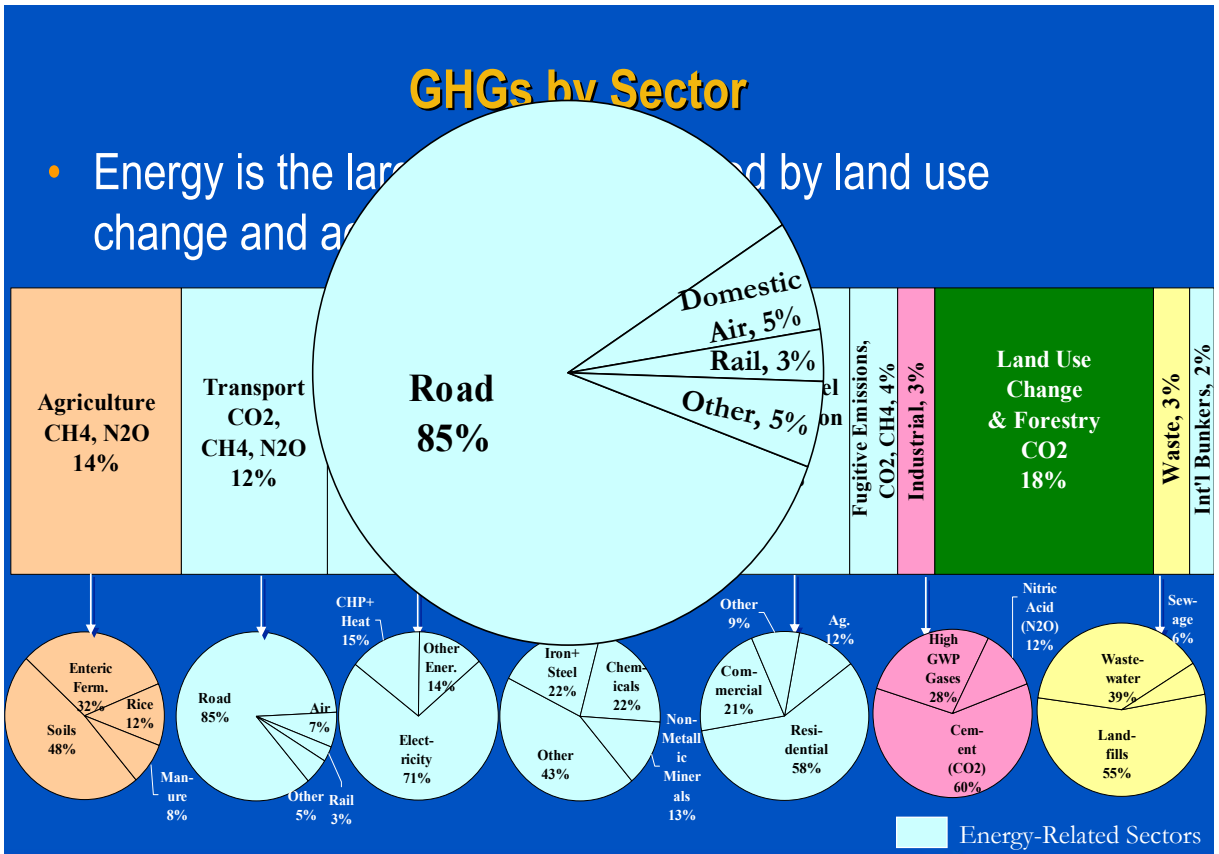
GHGs by Sector

- Energy is the largest sector, followed by land use change and agriculture



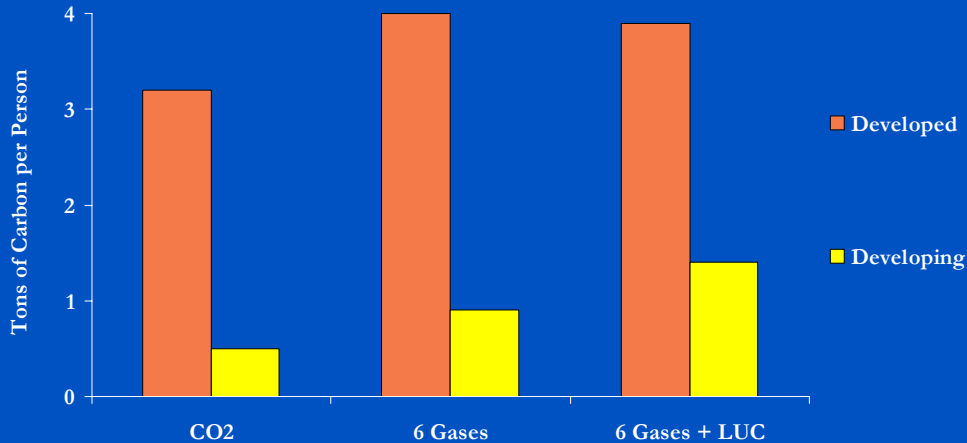
GHGs by Sector

- Energy is the largest sector, followed by land use change and agriculture



Per Capita Emissions

- Per capita emissions vary widely, although levels are generally higher in Annex I countries.



WORLD RESOURCES INSTITUTE

Per Capita Emissions: Groups & Clusters

Global Ranks in Parenthesis (for 6 gases, excluding LUCF)

OPEC/Gulf

- Qatar (1)
- UAE (2)
- Kuwait (3)
- Bahrain (4)
- S. Arabia (15)

Small Islands

- Antigua & Barbuda (11)
- Trinidad & Tobago (13)
- Singapore (14)
- Nauru (22)
- Palau (23)

Other A-I

- Japan (37)
- EU-25 (38)

Middle Income NA-I

- S. Korea (32)
- Taiwan* (39)
- S. Africa (45)
- Argentina (58)
- Malaysia (61)
- Mexico (80)

“New World” A-I

- Australia (5)
- USA (6)
- Canada (7)
- New Zealand (8)

EITs

- Czech Rep (17)
- Russia (20)
- Estonia (21)
- Turkmenistan (28)
- Kazakhstan (34)
- Ukraine (35)

Large NA-I

- China (97)
- Indonesia (122)
- India (140)

→ 41% of global population

*Non-Party, Non-UN

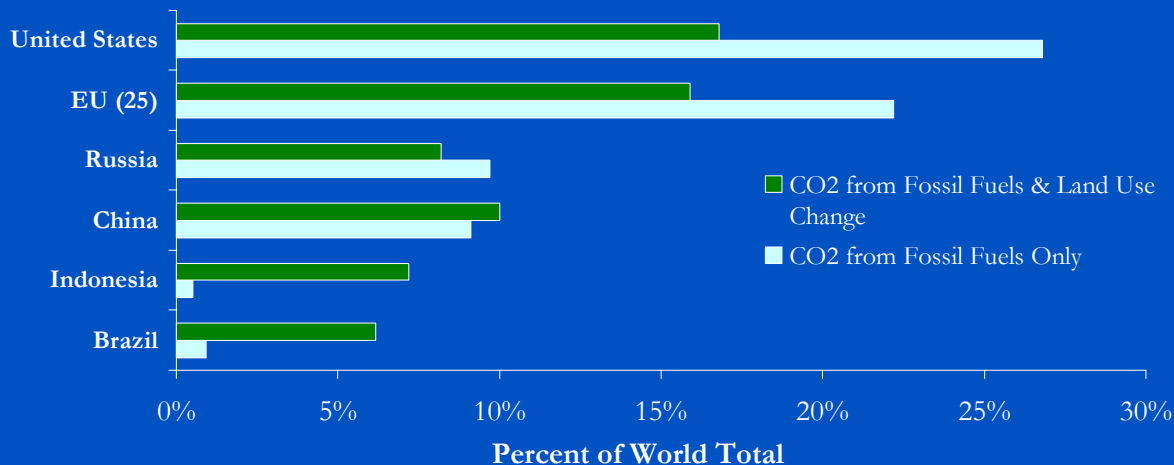


WORLD RESOURCES INSTITUTE

Historical GHG Emissions

- Industrialized countries have the largest contributions to the historical GHG buildup.
- Which gases and sources should be examined?

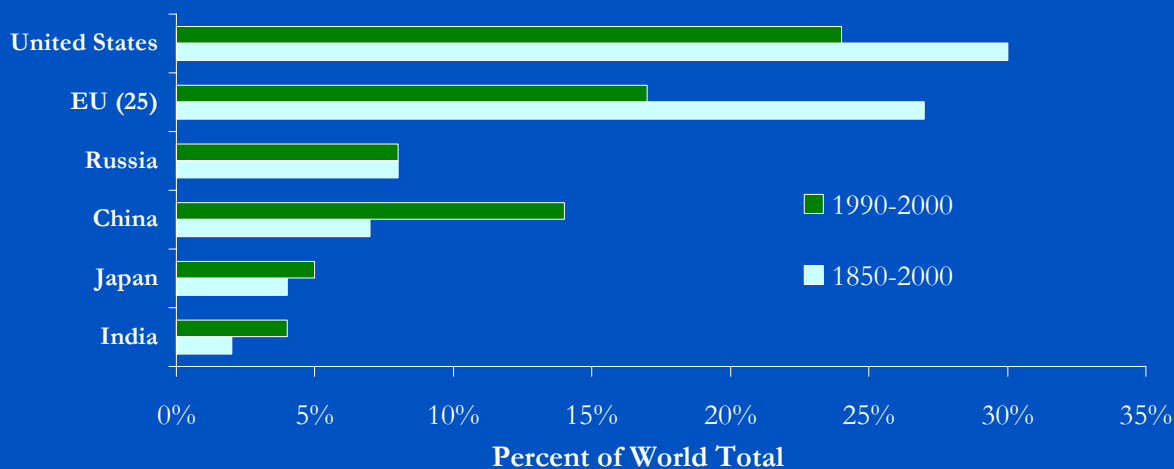
Cumulative CO2 Emissions, with & without Land Use Change (1950-2000)



Historical GHG Emissions

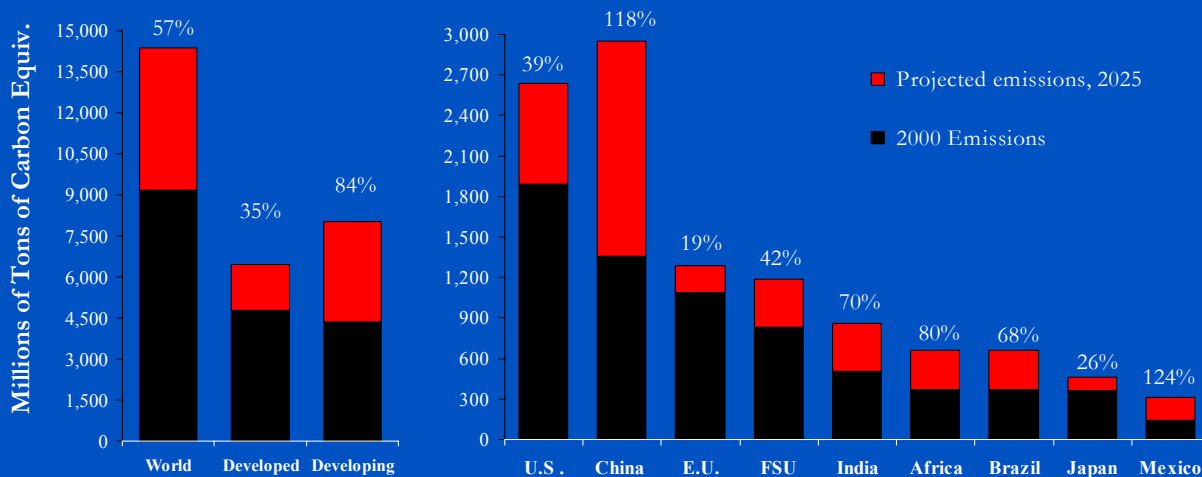
- Which time period should be examined?
- Gases/sources & time period are more determinative than the indicator chosen (cumulative, concentrations, temperature)

Cumulative CO2 Emissions, with & without Land Use Change (1950-2000)



Projections of Future GHG Emissions

- Developing countries are expected to grow fastest; growth in U.S. emission is large.



* Projections cover six GHGs. Underlying data sources: EIA (Reference Case), POLES



WORLD RESOURCES INSTITUTE

Demonstration of CAIT

- CAIT Products
 - CAIT Excel (version 2.0 forthcoming, COP10)
 - Version 1.5, released at COP9
 - CAIT Online (forthcoming, COP10)
 - CAIT UNFCCC (beta version forthcoming, COP10)
 - CAIT V&A (beta version forthcoming, COP10)
- COP10. Visit WRI kiosk for a personal demonstration.



WORLD RESOURCES INSTITUTE

Accessing CAIT

<http://cait.wri.org>

- Go to <http://cait.wri.org>
- Register and Login to the site
- Download CAIT (Excel) and supporting documents, OR
- View CAIT-Online (as of COP10)
 - Current test version: <http://cait.wri.org/online.php> (in peer review)



WORLD RESOURCES INSTITUTE



WORLD
RESOURCES
INSTITUTE

Thank you.

Kevin A. Baumert
World Resources Institute
kbaumert@wri.org