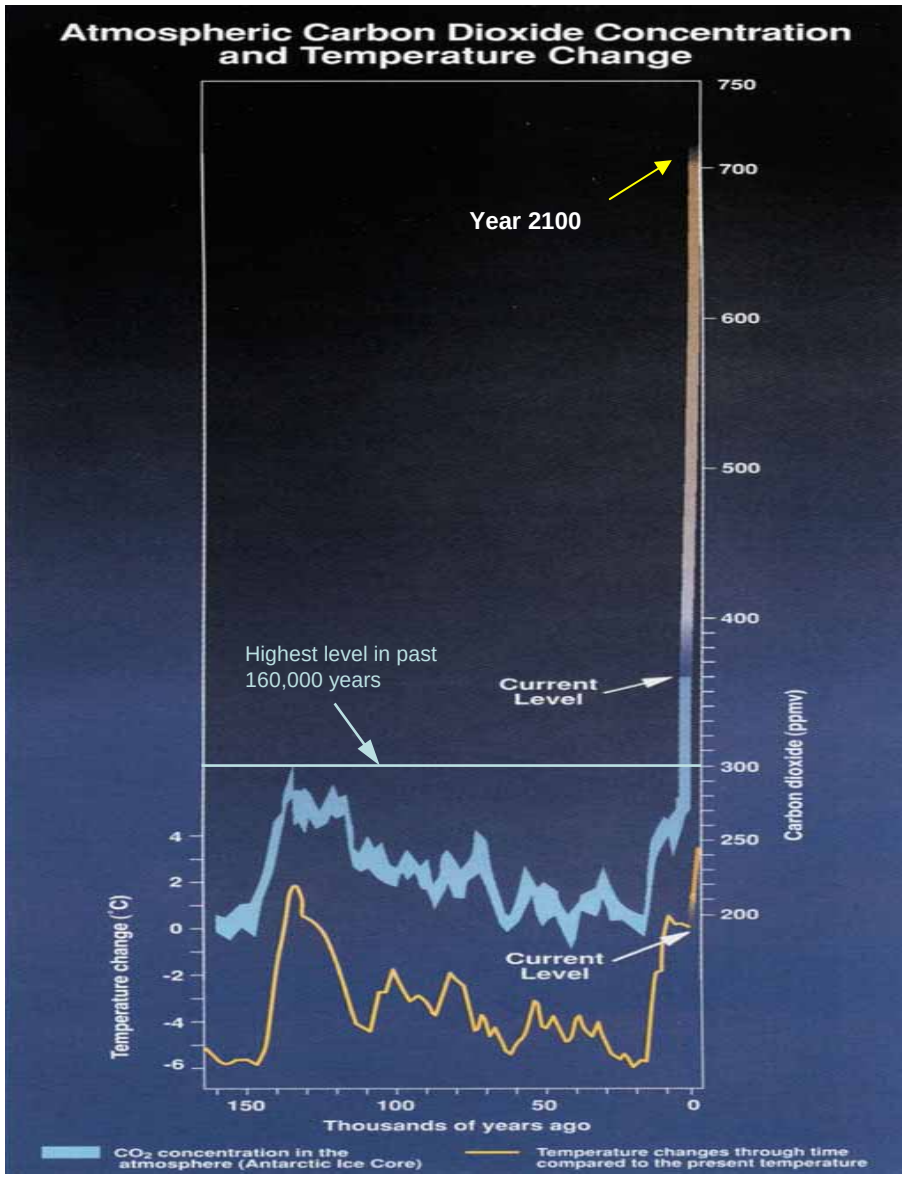
Asia on the Copenhagen

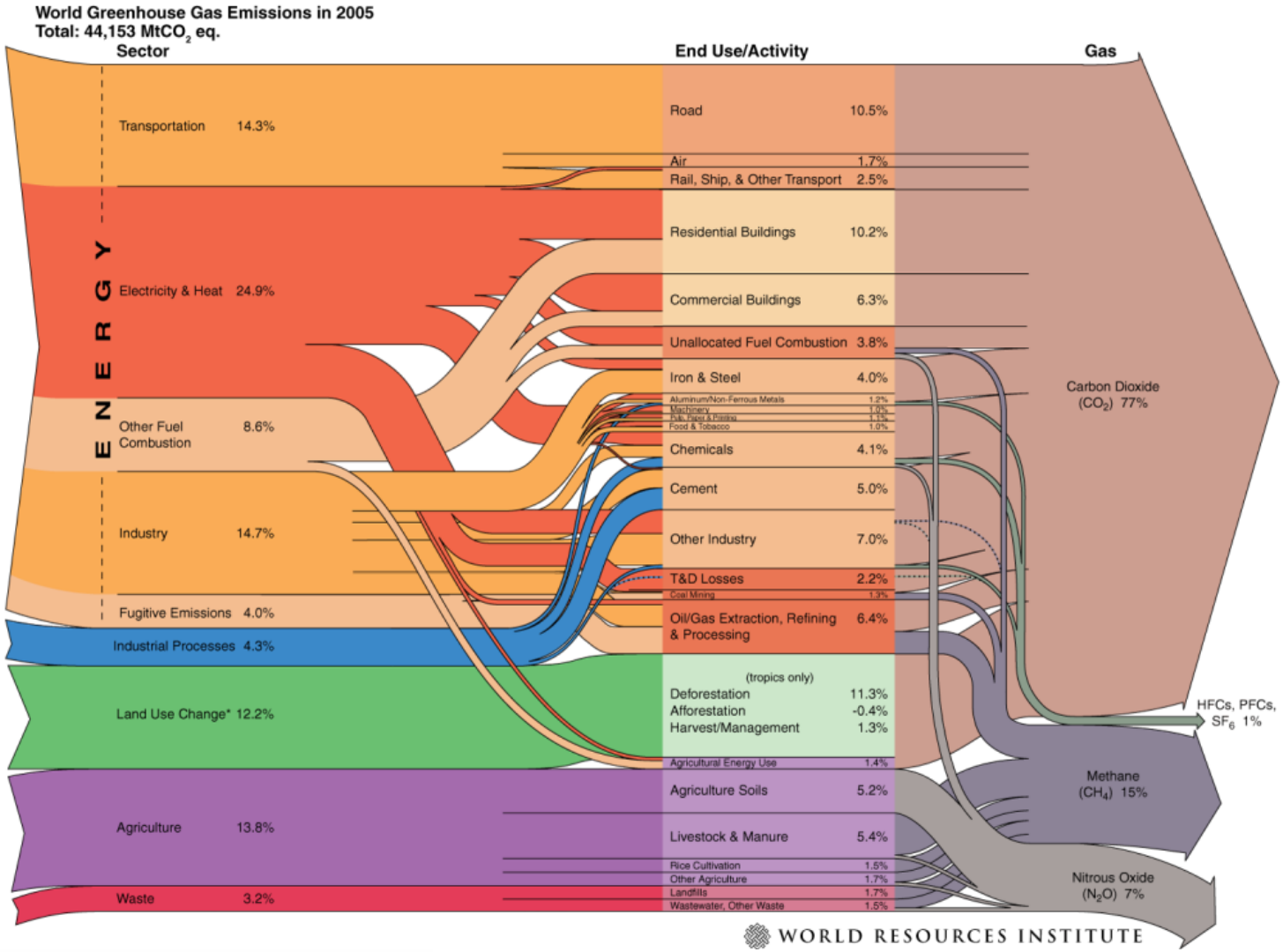
“Setting the Stage”

Josh Carmody

OECD-ESCAP Regional Conference on Corporate Responsibility.
“Why Responsible Business Conduct Matters”, Nov 2-3 2009



- Highest CO2 levels now in over 160,000 years
- Under "business as usual", GHG's projected to increase exponentially over next 50-100 years
- It is the correlation driving change
  - CO2 & temperature change
  - Human contribution.


World Greenhouse Gas Emissions in 2005
Total: 44,153 MtCO2 eq.
Sector
End Use/Activity
Gas
ENERGY
Transportation 14.3%
Electricity & Heat 24.9%
Other Fuel Combustion 8.6%
Industry 14.7%
Fugitive Emissions 4.0%
Industrial Processes 4.3%
Land Use Change* 12.2%
Agriculture 13.8%
Waste 3.2%
Road 10.5%
Air 1.7%
Rail, Ship, & Other Transport 2.5%
Residential Buildings 10.2%
Commercial Buildings 6.3%
Unallocated Fuel Combustion 3.8%
Iron & Steel 4.0%
Aluminum/Non-Ferrous Metals 1.2%
Machinery 1.0%
Pulp, Paper & Printing 1.1%
Food & Tobacco 1.0%
Chemicals 4.1%
Cement 5.0%
Other Industry 7.0%
T&D Losses 2.2%
Coal Mining 1.3%
Oil/Gas Extraction, Refining & Processing 6.4%
(tropics only)
Deforestation 11.3%
Afforestation -0.4%
Harvest/Management 1.3%
Agricultural Energy Use 1.4%
Agriculture Soils 5.2%
Livestock & Manure 5.4%
Rice Cultivation 1.5%
Other Agriculture 1.7%
Landfills 1.7%
Wastewater, Other Waste 1.5%
Carbon Dioxide (CO2) 77%
HFCs, PFCs, SF6 1%
Methane (CH4) 15%
Nitrous Oxide (N2O) 7%
WORLD RESOURCES INSTITUTE

The Economics of Climate Change

- Climate Change is happening in South East Asia.
- SE Asia = 653 million people
- SE Asia = 173, 251 km of coastline
- Heavily reliant on Agriculture: (i) 43% of 2004 employment; (ii) 11% of GDP
- High susceptibility to drought, flood, typhoon
- World's largest provider of forest products

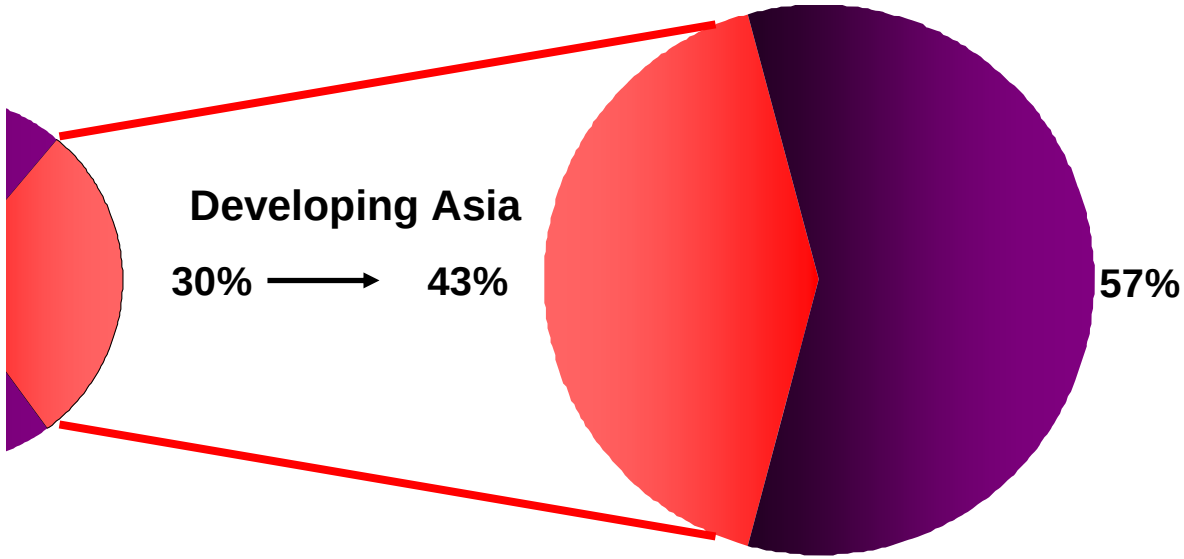
The Impacts of Climate Change (SEA)

- Mean temperature rise 0.1- 0.3 Degrees Celsius per decade from 1951 - 2000
- Sea level increases 1-3 mm per year
- Decreased rainfall trend
- Moe increased drought, flood, storm.
- High susceptibility to drought, flood, typhoon
- Phil Storm numbers – 20 between 1960-69 & 120 b/w 2000 – 2008.

The Impacts of Climate Change (2)

- Predicted changes for South East Asia include:-
  - Annual mean temperature rise 4.8 Celcius by 2100;
  - Mean sea level rise of 70 cm by 2100;
  - Thailand, Indonesia, Vietnam, dryer over next 2-3 decades;
  - Rice yield potentail will decline by up to 50% by 2100;
  - Potential economic cost 6.7% of GDP by 2100 (x2 world average).

sia's Share in Global C02 from nergy Consumption



Source: ADB, data from IEA World Energy Outlook 2008