Access to energy in developing countries

Ian Tellam

www.etc-international.org

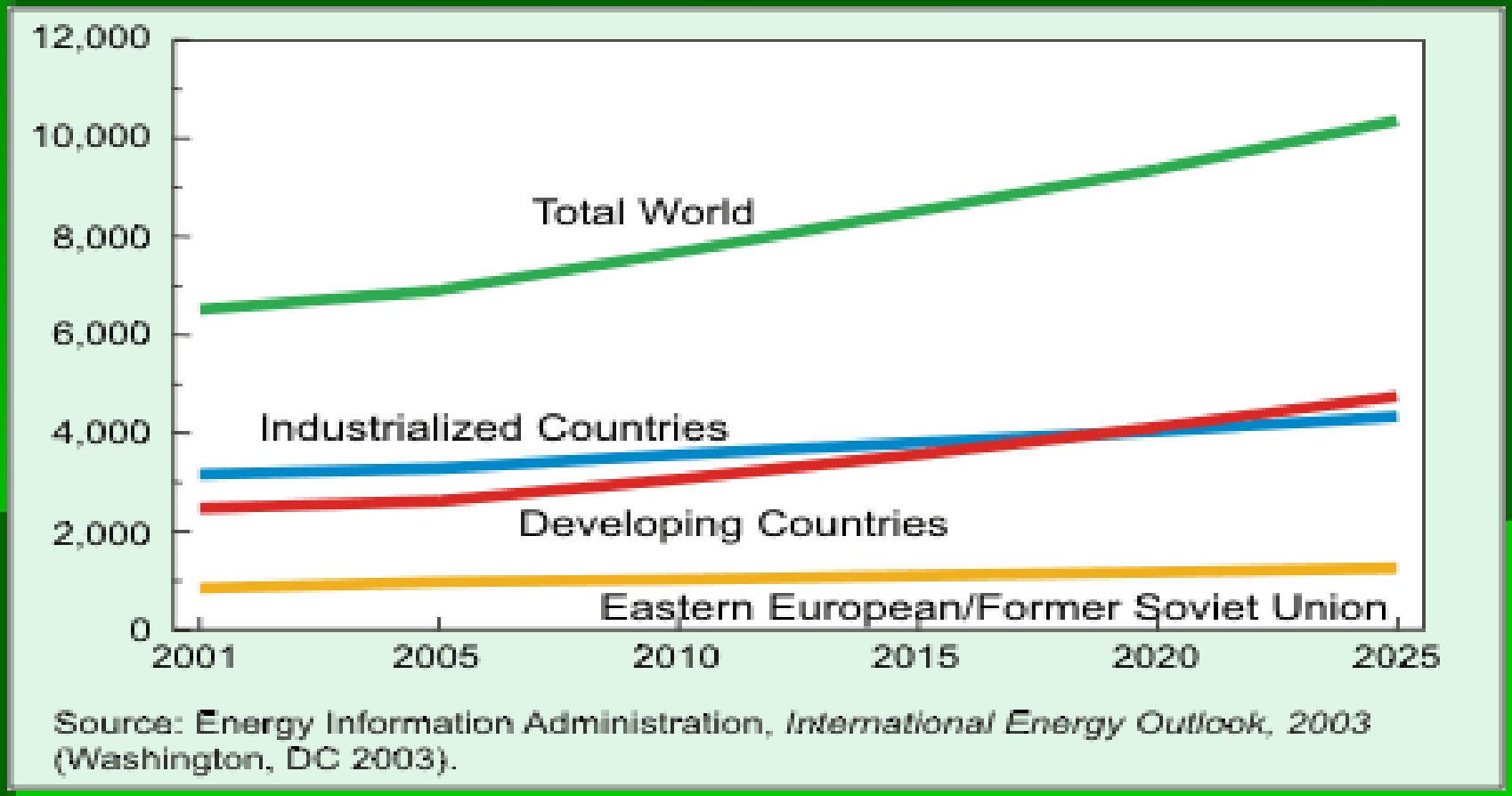
This presentation will cover

I. Context: climate change *versus* development?
II. The EASE Project: ‘Enabling Access to Sustainable Energy’
III. Conclusions

I. Context

Climate versus development?

Scary statistics...



Source: Energy Information Administration, *International Energy Outlook, 2003* (Washington, DC 2003).

Is development really a threat to the global climate?

- Basic electricity needs per household, examples:
  - Electric pump = 2kWh
  - 5 hours basic lighting (50 watt Compact Fluorescent) = 18 kWh
  - Refrigerator (1 per household) = 50 kWh
  - Health Clinics – lighting plus cooling for medicines (1 clinic per 100 households) = 2 kWh per household
  - Schools – lighting, heating, computers and other 2 kWh appliances (1 school per 100 households) = 2 kWh per household
  - (Emissions from cooking – biomass-fuelled stoves or kerosene or LPG - are negligible in this context)
- 1 kWh electricity from fossil fuels = 1 kilo CO2.
- Meeting basic needs through electricity = not more than 100 kWh/household/year = not more than 100 kilo CO2/household/year.
- World Bank estimates 2 billion people without access to basic energy services.
- One household = 4 persons (average).
- 2 billion / 4 = 500 million.
- Therefore 500 million households are without access.
- 500 million households @ 100 kilo CO2/year/household = 50 Mton CO2/year.
- Therefore, 2 billion people gaining access to basic energy services would lead to annual increase in GHG emissions of 50 Mton.
- Total world emissions 19,073 Mton CO2eq/year (2002)
- 50 as percentage of 19,073 = 0.2621506842132858
- Therefore 2 billion poor people gaining access to modern energy = increase in annual CO2 emissions of 0.26%

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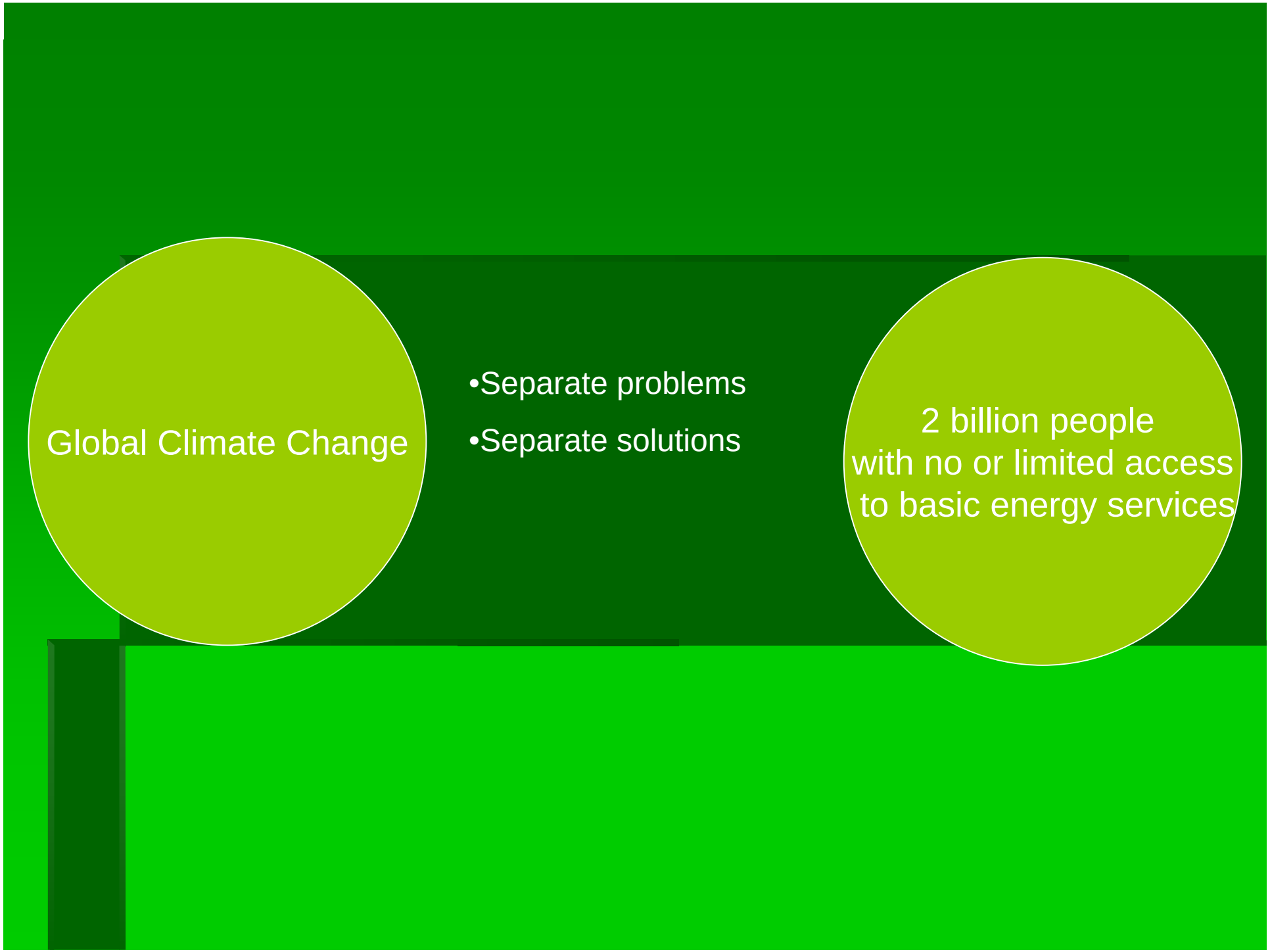
CAVEAT: rough calculations using BOE methodology

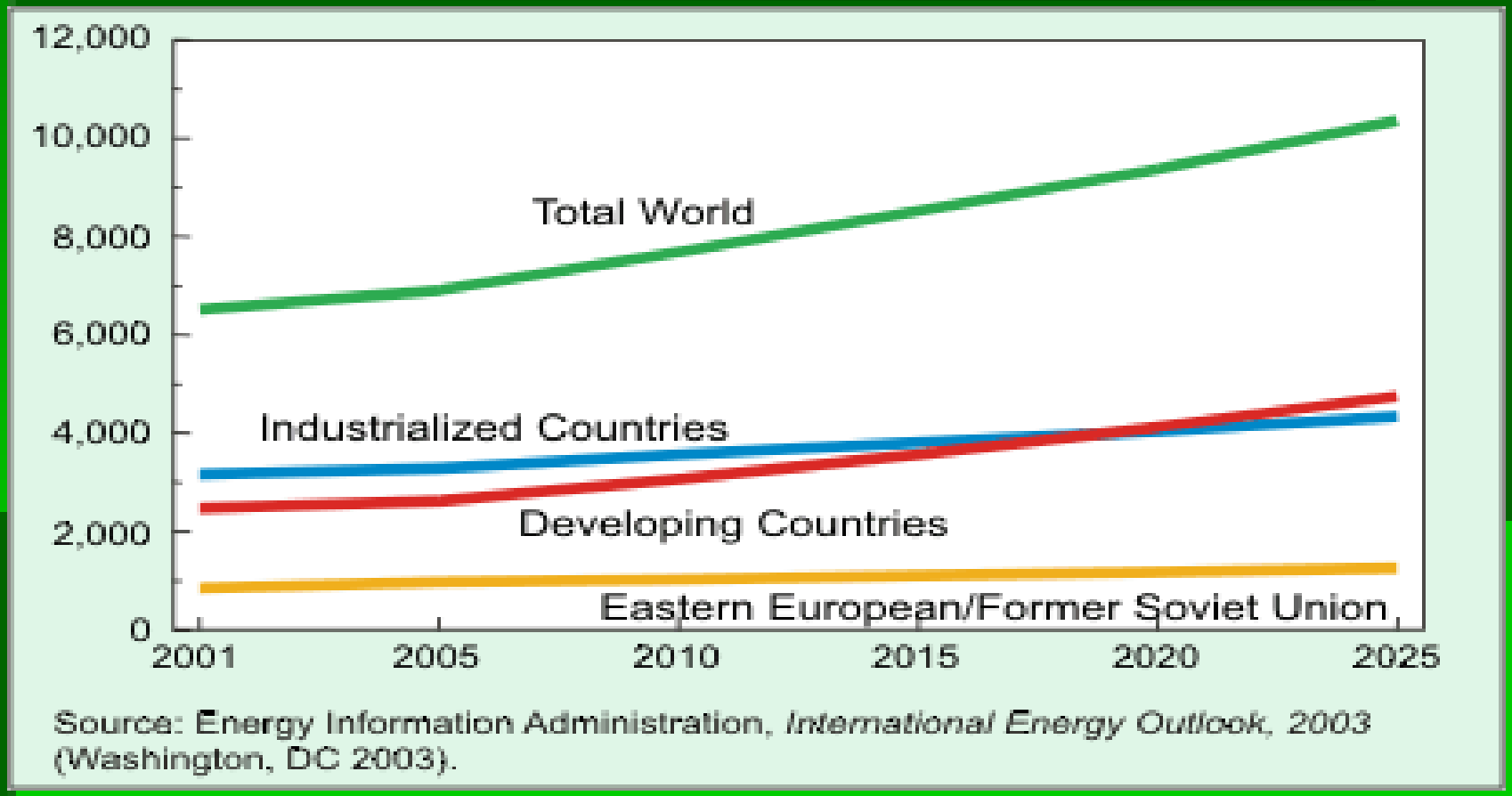
Get Real!

Distinction between:

- a) inefficient and wasteful energy use by global middle class, causing climate change
- b) poverty alleviation through access to modern energy in developing countries, little/nothing to do with climate change.


Global Climate Change
•Separate problems
•Separate solutions
2 billion people
with no or limited access
to basic energy services

The problem is real...



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But who is the problem?

- Climate change caused by international middle class with wasteful, inefficient energy consumption habits.
- *Poor* people in developing countries are not a threat to the global climate.
- Solutions lie both in relations between nations (north-south) and intra-national relations between socio-economic groups (rich-poor).

II. The EASE Project:

‘Enabling Access to Sustainable Energy’