

**The "carbon blanket" -
the Greenhouse Effect**

**The
Carbon
cycle**

**The "carbon store"
- vegetation, soil
& oceans**

**Logging
& land
clearing**

Oil, gas & coal



Sustainable Living at Home

Wednesday 17th September 2008

City of Port Phillip

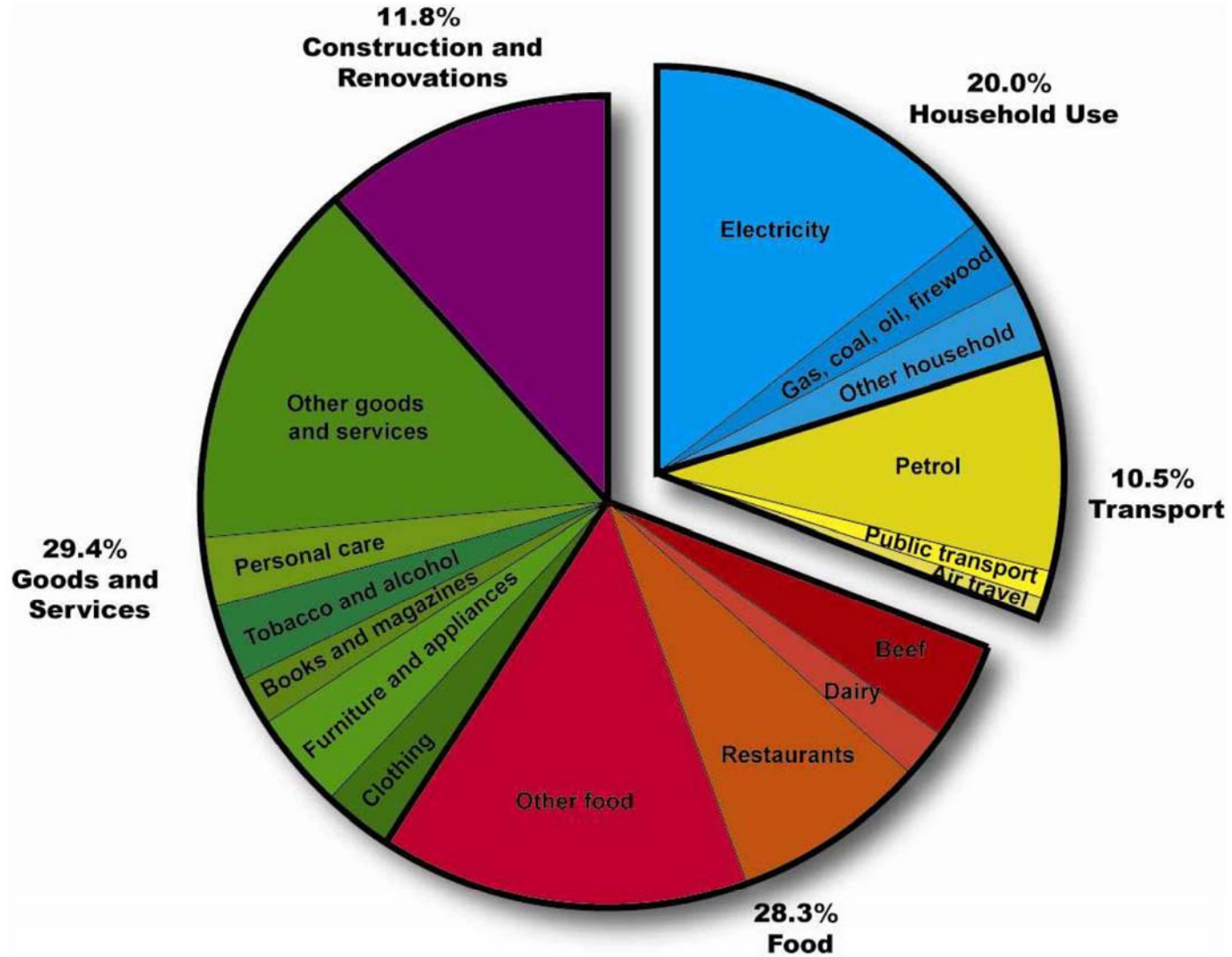
- **Introduction**
- **Where to put our climate change energy**
- **CoPP electricity information**
- **3 types of efficiency - lighting and insulation display**
- **Five Easy Things you'd be crazy not to do at your home for renters and home owners**
- **Five things you really should do if you are serious about climate change**

Percentage of Average Australian CO₂ Emissions Per Person

Household Energy (electricity, gas)	3 (20%)
Transport (Car, PT, air travel)	5 (10.5%)
Food (Including dining out)	2 (28.3%)
Construction and Renovation	4 (11.8%)
Goods and Services	1 (29.4%)

<i>Government Services (inc. Defense)</i>
<i>Take up of carbon by common forests</i>
<i>Trees planted</i>

Fig 1. Average household profile: greenhouse gas pollution



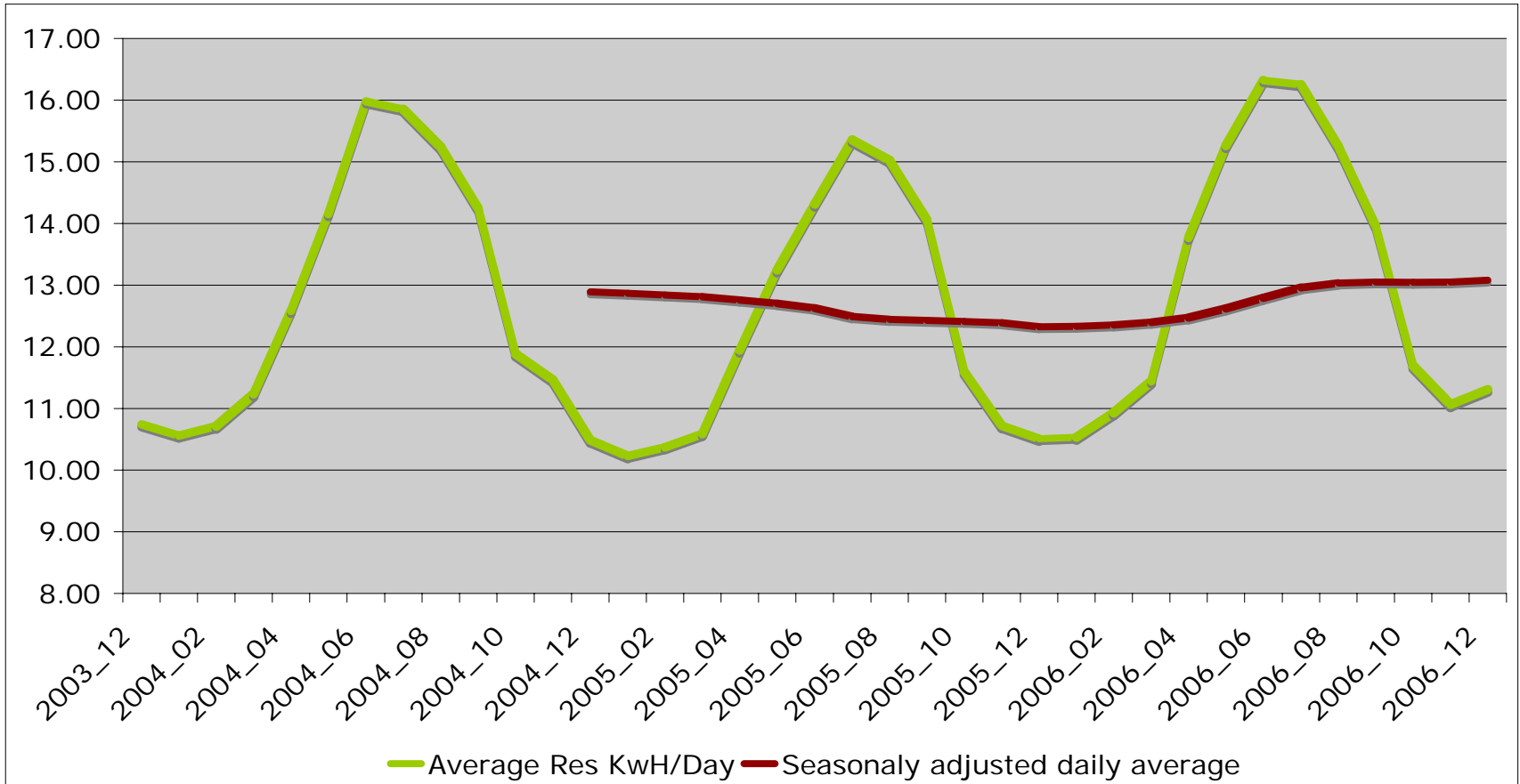
Some comparative Averages

Average Australian Citizen	18,900 kg of CO ₂ e Per Year *
Average Victorian Citizen	19,730 kg of CO ₂ e Per Year *
Average Port Phillip Resident	26,820 kg of CO ₂ e Per Year *
Average World Citizen	7,000 kg of CO ₂ e Per Year #
Average Citizen of India	1,000 kg of CO ₂ e Per Year #

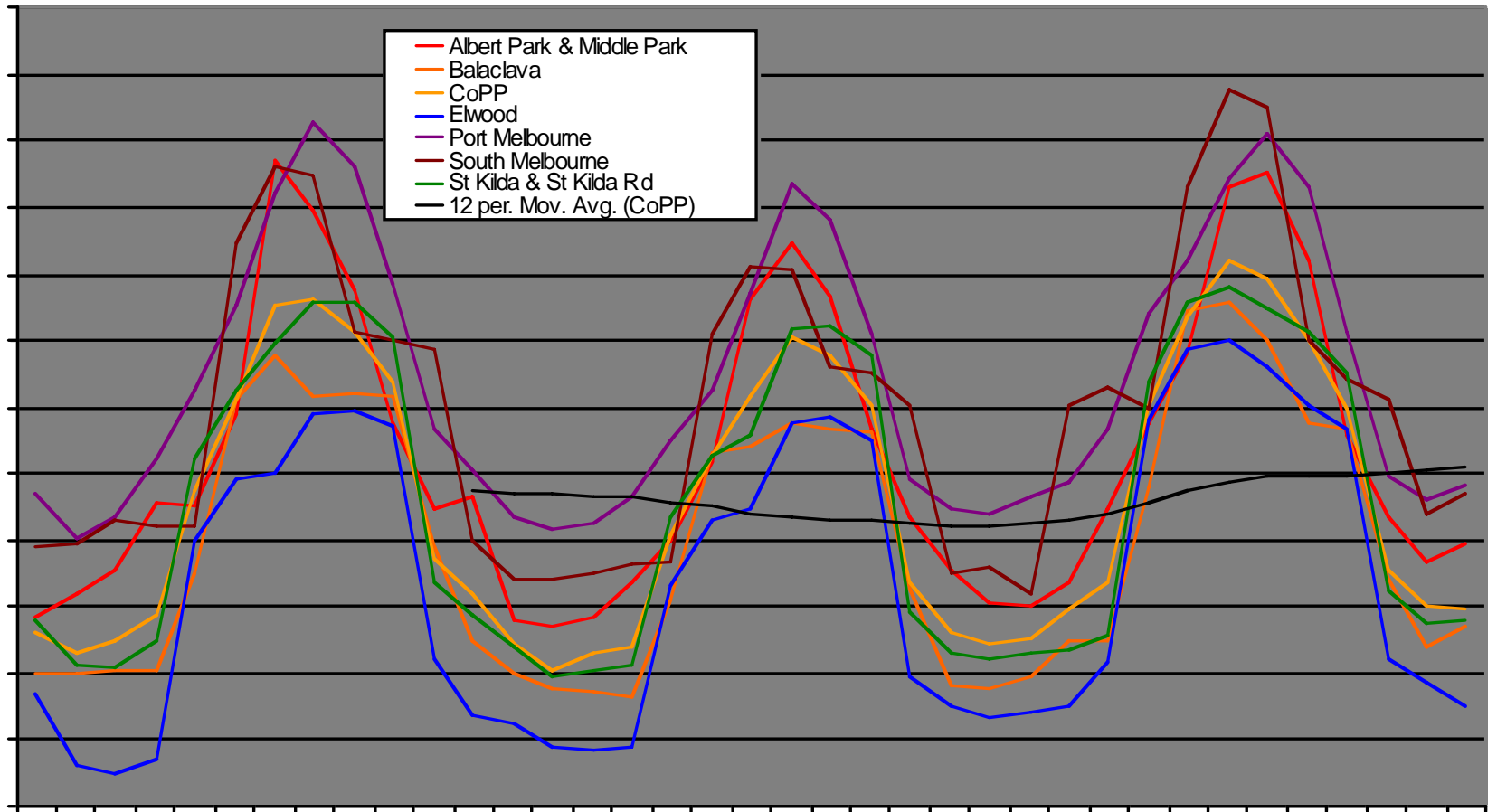
**From ACF's Consumption Atlas 2007*

#From earlier Lenzen calculator

CoPP Average daily electricity consumption per household



CoPP Average daily electricity consumption per household by suburb



The three types of efficiency

Illustrated by lighting display

Efficiency of **appliance**

Efficiency of **installation**

Efficiency of **behaviour**

Window covering display



Five Easy Things you'd be crazy not to do at your home, renters or homeowners

- Change all light globes to Compact Fluoros
- Install a Water saving shower rose
- Turn off Stand-by power
- Weather strip your house
- Develop an energy consciousness



Five Things home-owners should consider

- Fully insulate and weather seal home
- Double glaze and/or install heavy curtains/blinds
- Install Solar Hot water
- Renovation for passive solar gain
- Increase the number of people in the house

Five things you really should do if you are serious about climate change

- **Buy less Stuff**

share, borrow, do more with less, buy second-hand

- **Value and re-use resources**

repair, look after, service, maintain

- **Eat un-processed, locally produced, in-season food**

cut emissions from agriculture, transport, food production, food retail, refrigeration. Healthier food so less needed for good health

- **Start growing your own food**

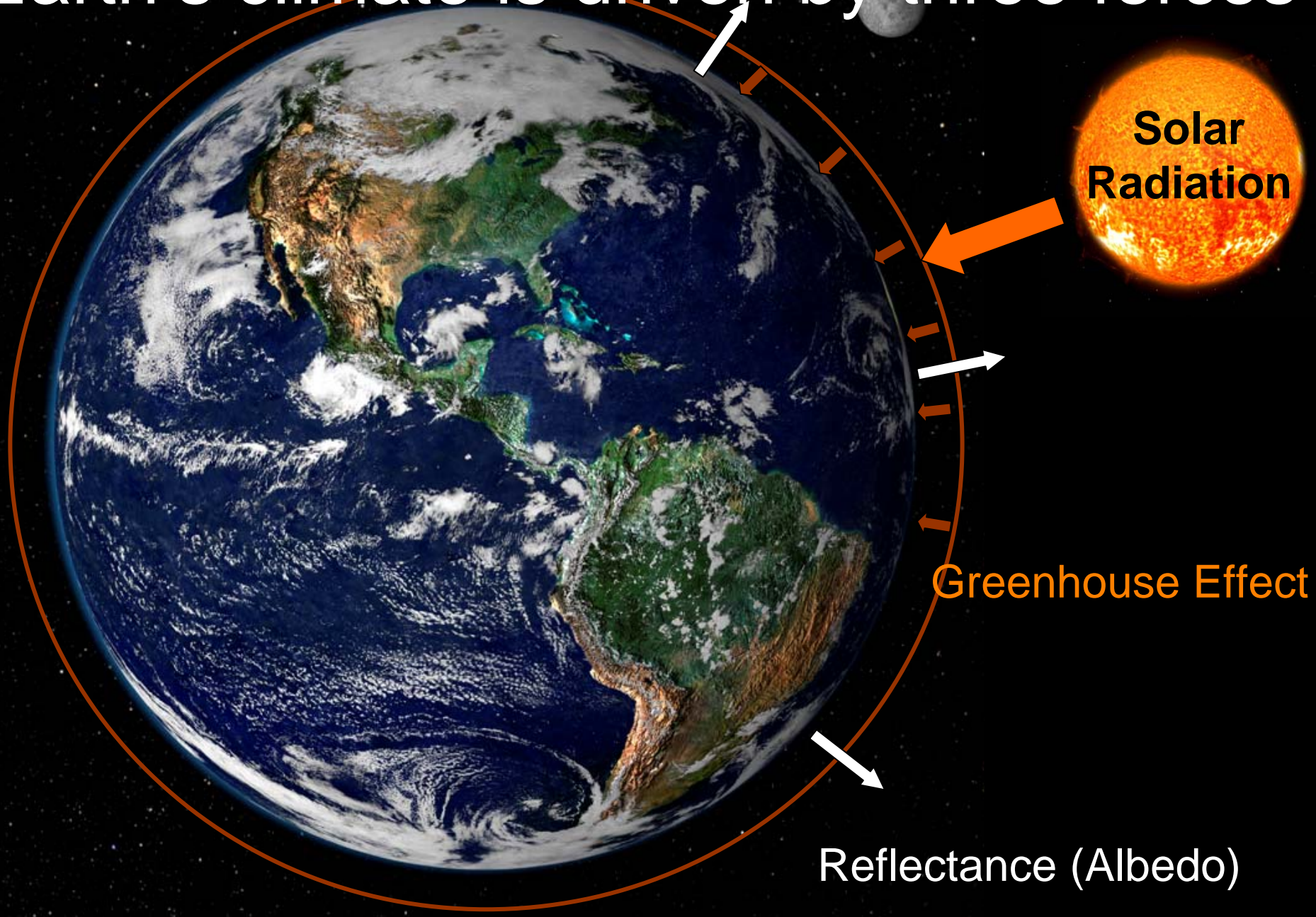
all of the above but better

- **Drive less - walk, ride and PT more**

for healthier people and communities



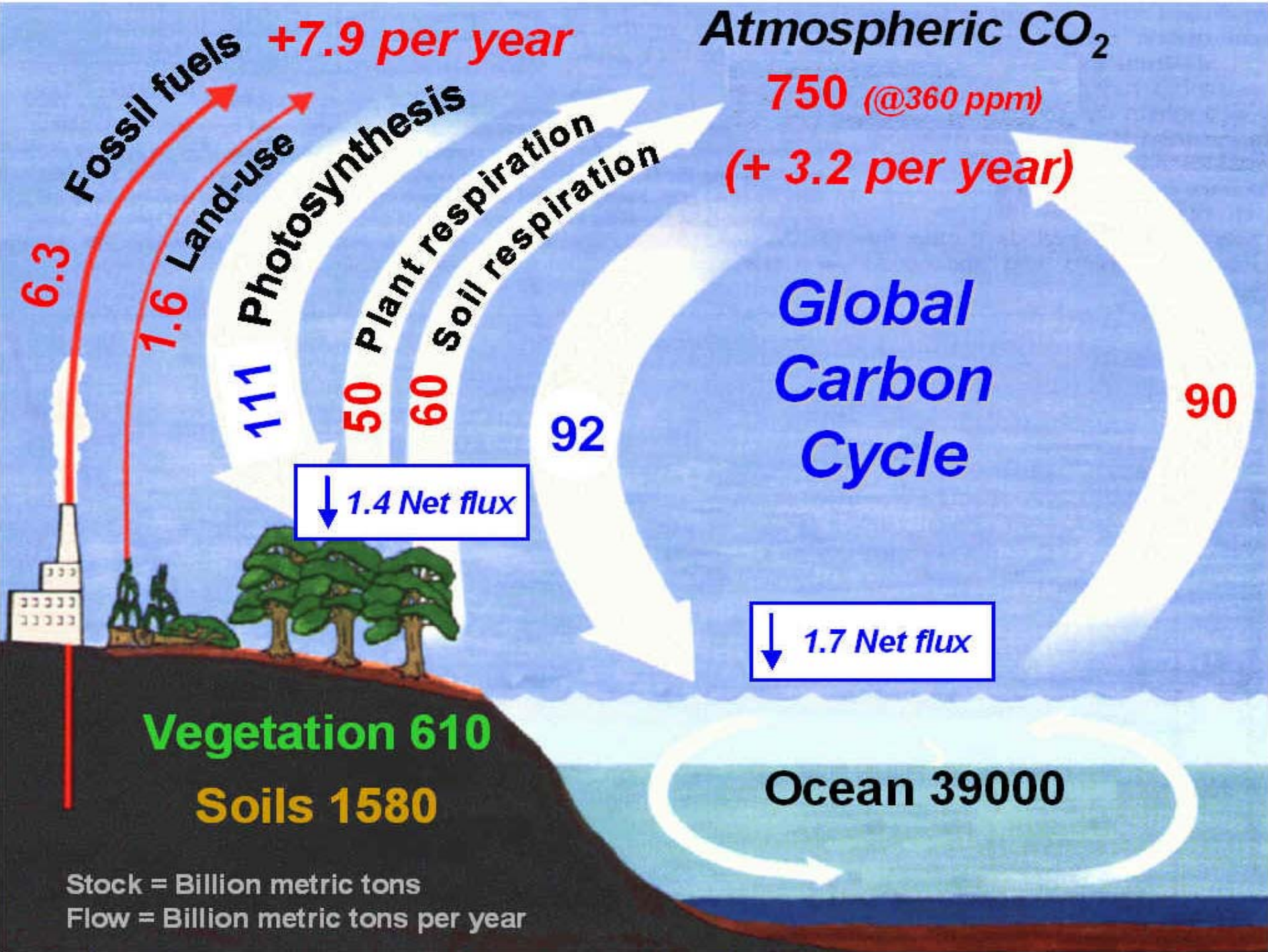
Earth's climate is driven by three forces



Solar
Radiation

Greenhouse Effect

Reflectance (Albedo)



Atmospheric CO₂

750 (@360 ppm)

(+ 3.2 per year)

Global Carbon Cycle

90

92

↓ 1.4 Net flux

↓ 1.7 Net flux

Vegetation 610

Soils 1580

Ocean 39000

Stock = Billion metric tons
Flow = Billion metric tons per year

