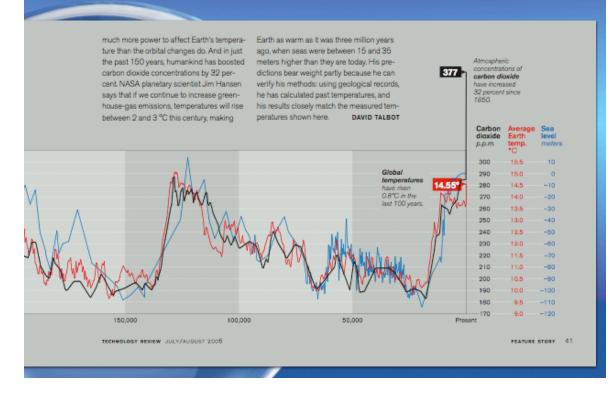
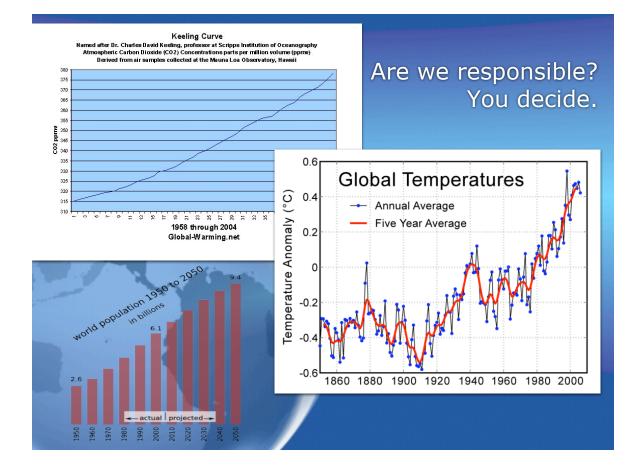


Global Warming: What needs to happen to make a difference?

> Dr. Bill Blair Physics & Astronomy Johns Hopkins University April 16, 2008

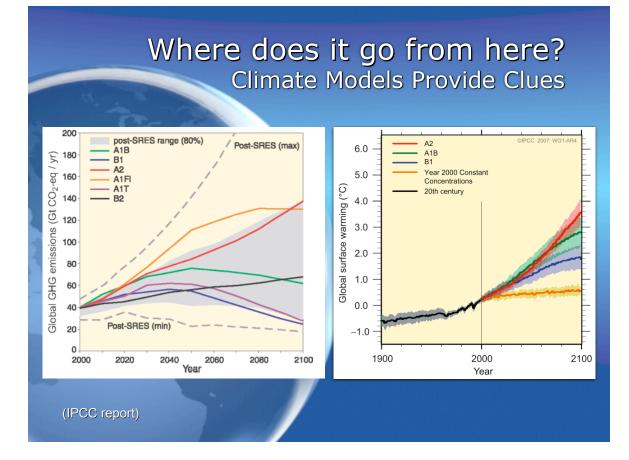
Are we responsible?



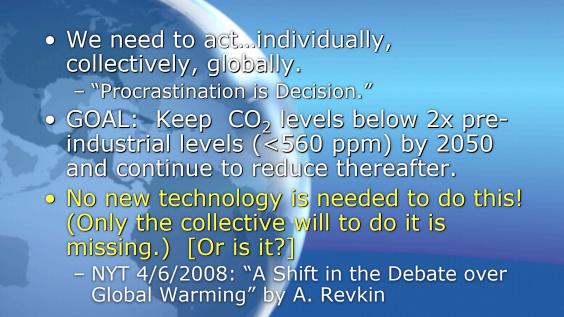


Energy Needs...





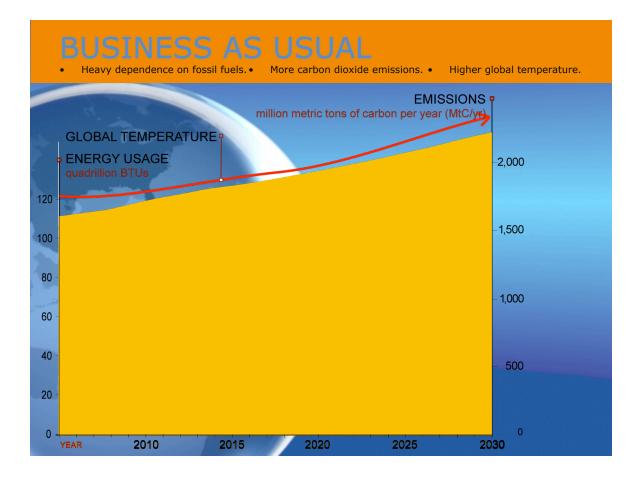
What Needs to Happen?







- Nothing will happen globally if we do not act.
- It is in our country's best interest to do so.
 - Economically
 - Socio-politically





What can we do to motivate ourselves?

• Consider Global Warming as a social justice issue.

APRIL 2 , 2007

Winners and Losers in a Changing Climate

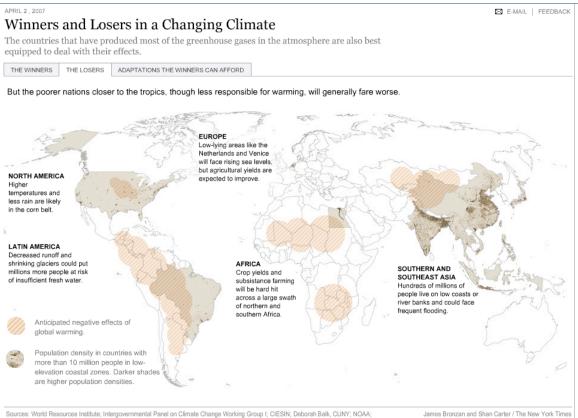
The countries that have produced most of the greenhouse gases in the atmosphere are also best equipped to deal with their effects.

THE WINNERS THE LOSERS ADAPTATIONS THE WINNERS CAN AFFORD

<image><figure>

E-MAIL | FEEDBACK

Sources: World Resources Institute; Intergovernmental Panel on Climate Change Working Group I; CIESIN; Deborah Balk, CUNY; NOAA; Shishmaref Erosion and Relocation Coalition; Monsanto; Thames Estuary 2100; BAST; BBC; Degrémont; Multiplex Group; peer-reviewed scientific papers



Sources: World Resources Institute; Intergovernmental Panel on Climate Change Working Group I; CIESIN; Deborah Balk, CUNY; NOAA; Shishmaref Erosion and Relocation Coalition; Monsanto; Thames Estuary 2100; BAST; BBC; Degrémont; Multiplex Group; peer-reviewed scientific papers





What can we do to motivate ourselves?

- Consider Global Warming as a social justice issue.
- Consider Global Warming as a stewardship issue.
- Consider Global Warming as a survival issue.
- Greed. (e.g. capitalism!)





Staff Writer, CNET News.com Published: April 24, 2007, 4:00 AM PDT 'alkBack 🖂 E-mail 🚘 Print 📲 del.icio.us 😁 Digg this $\Box \lambda 1$



What makes a home green? Strategically placed windows, for one thing, says Michelle . Kaufmann.

Many energy-consumption problems can be addressed with simple tweaks to conventional house design, according to the founder of eco-friendly

Natural plastics for ecoconscious consumers April 24, 2007 4:13 AM PDT

del.icio.us 🔠 Digg this

These applesauce cups are made out of cornstarch, which means they can biodegrade in soil, compost or wastetreatment facilities within a few months. Metabolix is partnering with agricultural giant ADM to produce the corn-based plastics, called Mirel, in the second half of next year.



Raising fuel economy to 40 miles per gallon can save **3 million barrels of oil** *a day*.

(Has been 27.5 mpg since 1990; manufacturers say they can't make 35 mpg by 2020!?)

Actions at the individual level can have an immediate and significant positive impact.

- Conserve!
- Recycle!
- Change a light bulb!
- Walk or bike.
- Carpool or public transportation.
- Buy a car that gets better gas mileage.
- Be aware, spread the word, change the culture.





CFL Bulbs--Good or Bad?

- CFL bulbs use 1/4th the electricity and last up to 10x longer.
 - Reduces electricity usage.
- But they contain mercury. (5 mg)
 - (So do regular fluorescent bulbs, but no one seems to talk about that!)
- In 2007, 300 million CFL bulbs were sold.
 - Equal to 1.6 tons of mercury.
- Burning coal also releases mercury.
 Over 50 tons in 2007.
- What is missing?
 - Used bulb collection and recycling!



Wind Energy--Good or Bad?



- Wind turbines: clean & green...or are they?
 - Each turbine 400 ft tall, generates 1.6 MW, enough energy to power 500 homes.
 - People claim they are noisy, eyesores.
 - Environmentalists
 claim they damage
 forests, habitats, bats
 & birds.

Biofuels--Good or Bad?



- Biofuels such as ethanol are claimed to be roughly carbon-neutral.
- Using corn for fuel drives up food prices.
 - Is trading food for fuel really what we want to do?
- In Brazil, forest is cleared to grow soy beans for ethanol!
- Balt Sun 4/16/08: AP article, copies by the door.

What are we doing at JHU?

Come Next Time and talk with members of the JHU Climate Change Task Force!

Wed. Apr. 30, 2008

For the Next Global Warming

Lunchtime Discussion!

Let's take care of the Earth...Image: take care of take care of the Earth...Image: take care of take care of the Earth...Image: take care of take care of take care of the Earth...Image: take care of take ca