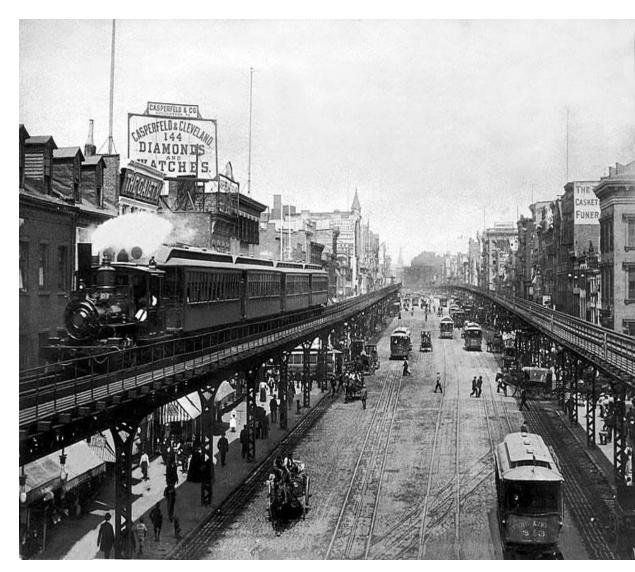
# POPULATION UP, RESOURCES DOWN

### Human's Impact Over History

Wherever humans have hunted, grown food, or settled we have changed the environment.

 How have those changes impacted the environment over human history?

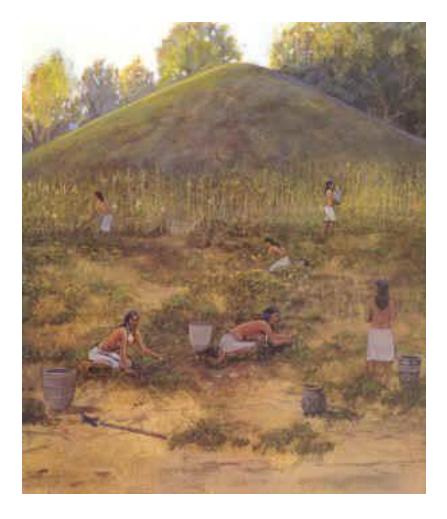


# **Hunter-Gatherers**



- Most of human history
- People who obtain food by moving around collecting plants and hunting wild animals.
- What are ways you think they had an impact on the environment?
- Why didn't they have a large impact on the environment?
- What kind of life did they lead?

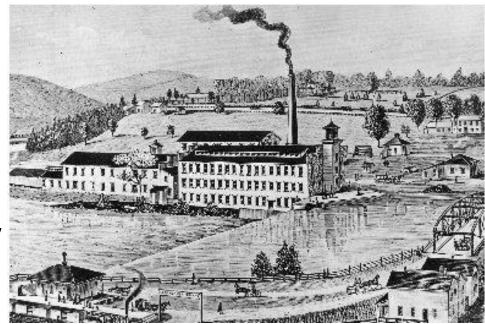
# **Agricultural Revolution**



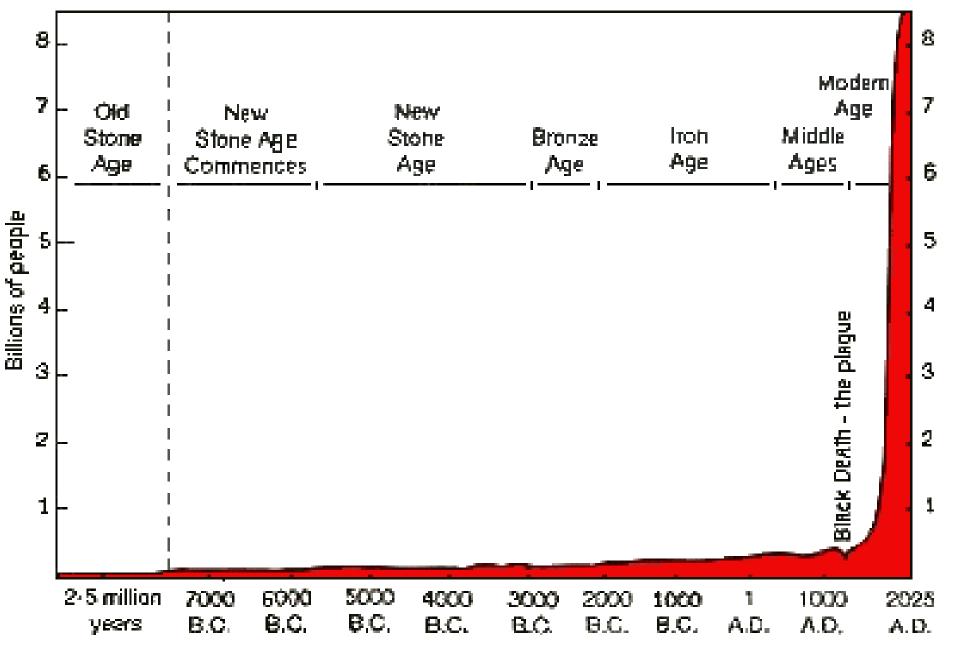
- <u>Plants and animals were</u> <u>domesticated and</u> <u>population grew.</u>
- 10,000 years ago
- Life got easier
- Population grew
- Towns began forming
- Impact on environment grew
- More land used

# Industrial Revolution

- <u>Caused a shift to fossil fuels</u> <u>as an energy source.</u>
- 1800s
- Life got easier
- Advances in technology
- People lived longer
- People moved to cities away from farms
- Increased environmental impact WHY???



#### World Population Growth Through History



# What are our main environmental problems?



# **Tragedy of Commons**

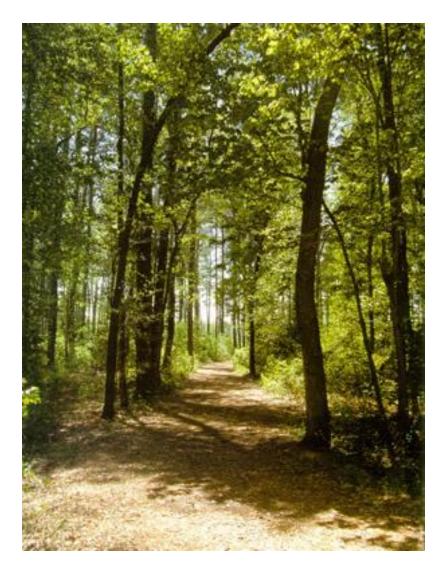
- <u>Conflicts arise when</u> <u>people share</u> <u>resources</u>
- If no one takes responsibility for the resource it will get overused and become degraded.
- Examples?



#### TRAGEDY OF THE COMMONS: IN CLASS $\rightarrow$ GROUP ACTIVITY "FISHING" HOMEWORK $\rightarrow$ READ ARTICLE, ANSWER Q IN BINDERS

#### What are Our Main Environmental Problems: 1. Resource Depletion

- <u>Resource depletion: using up</u> <u>resources before they can be</u> <u>replenished</u>
- Example: Renewable resources like trees cut faster than they formed
- What are some other example of renewable resources?
- Can theoretically last forever



#### What are Our Main Environmental Problems: 1. Resource Depletion

- <u>Nonrenewable resource</u> <u>forms more slowly than</u> <u>it is used up</u>
- Examples: minerals like aluminum and fossil fuels like coal, oil and natural gas.
- Resource is said to be depleted when almost used up

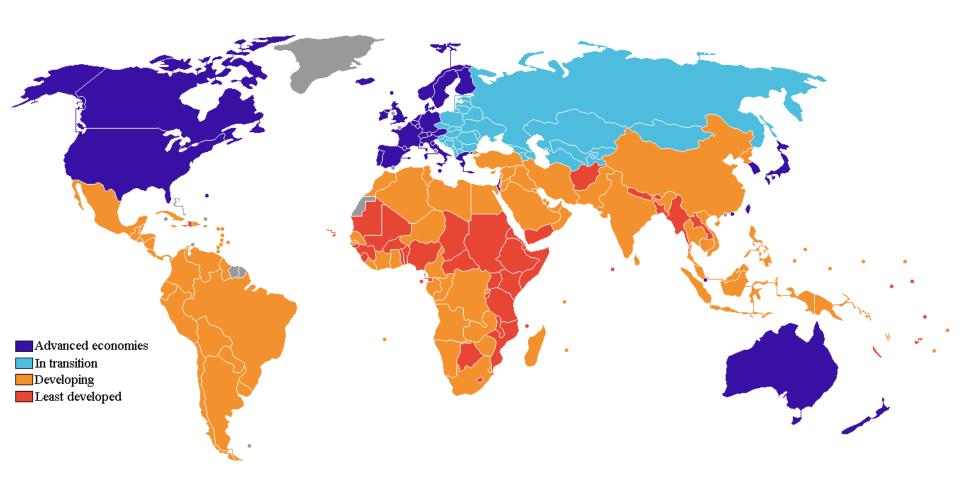


Renewable and Nonrenewable Resources	
Renewable	Nonrenewable
energy from the sun water wood soil air	metals such as iron, aluminum, and copper nonmetallic ma- terials such as salt, sand, and clay fossil fuels

# Who uses most resources?

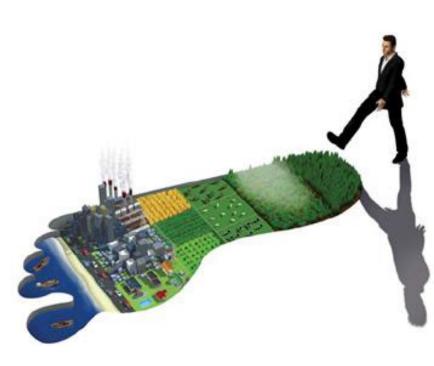
- <u>Developed Countries like the</u> <u>U.S. (high personal wealth)</u> <u>have high consumption rates</u>
- What are the "developed" countries of the world?
- <u>Developing Countries: have</u> <u>high population growth,</u> <u>poverty and lower resource</u> <u>consumption</u>
- List several



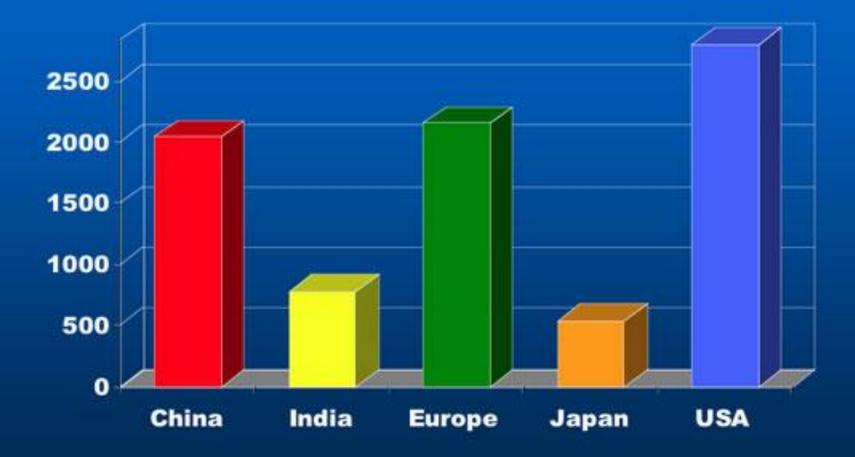


# **Ecological Footprint**

- <u>The productive area of land</u> <u>needed to support a persons</u> <u>life</u>
- Measured by: diet, transportation, waste, housing, energy sources, appliances
- Compare countries

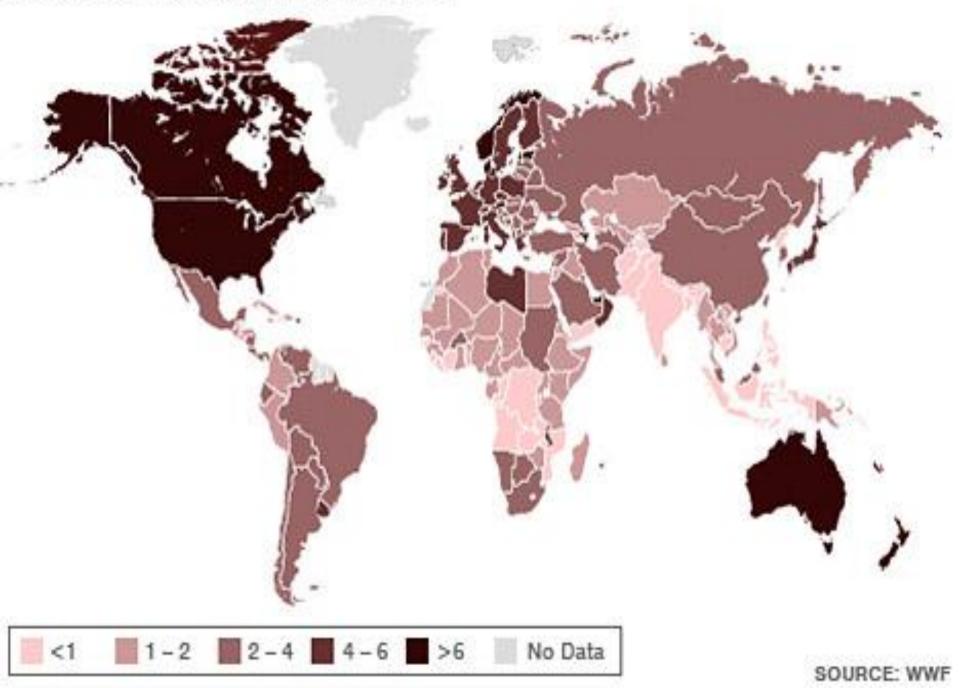


### Ecological Footprint 2004 (million global hectares)



© Worldwatch Institute, 2006

#### ECOLOGICAL FOOTPRINT BY COUNTRY



## DAY 1→IN CLASS: PAGE 10 "MAP IT" (IN COLOR) DAY 2 → IN CLASS: ECOLOGICAL FOOTPRINT HOMEWORK: MAKE POSTER

http://www.myfootprint.org/

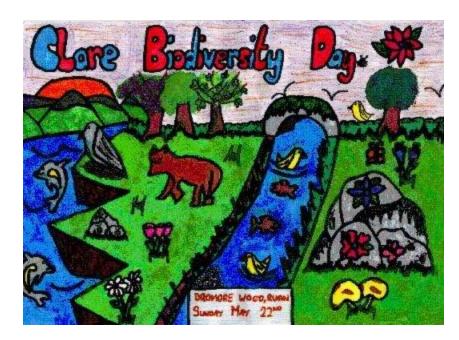
# What are our main environmental problems: 2. Pollution



- <u>Pollution: an</u> <u>undesirable change in</u> <u>the air, water or soil</u> <u>that affects humans or</u> <u>other organisms.</u>
- Biodegradable
- Air pollution
- Water pollution
- Land pollution
- Can you give examples?

#### What are our main environmental problems: 3. Loss of Biodiversity

- <u>Biodiversity: the number</u> and variety of species that live in an area.
- Earth has been home to 100s of millions of species
- Only a few exist today
- Mass Extinctions



#### <u>Sustainability</u>

- <u>Condition in which</u> <u>human needs are met</u> <u>without harming future</u> <u>generations.</u>
- Are we living sustainable today?
- What would need to change?
- Think about your ecological footprint!

