

Stuart:  
What Is Environmental  
Sociology?  
Chapter 1

1

Stuart makes the argument that  
there are two major  
environmental problems that we  
are facing.

What might they be?

Climate crisis  
and  
Threats to biodiversity

2

What would you guess is the  
basic problem or crisis regarding  
the climate?

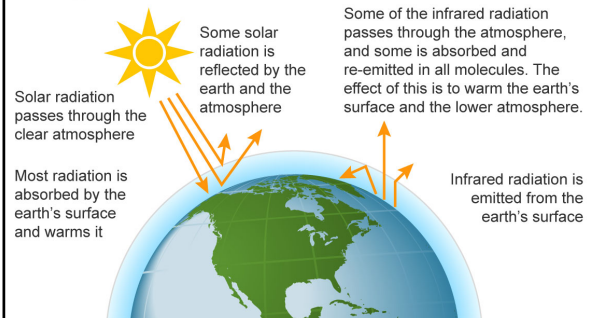
Increased temperatures around  
the world are causing  
global climate change.

What is causing the earth's  
temperature to increase?

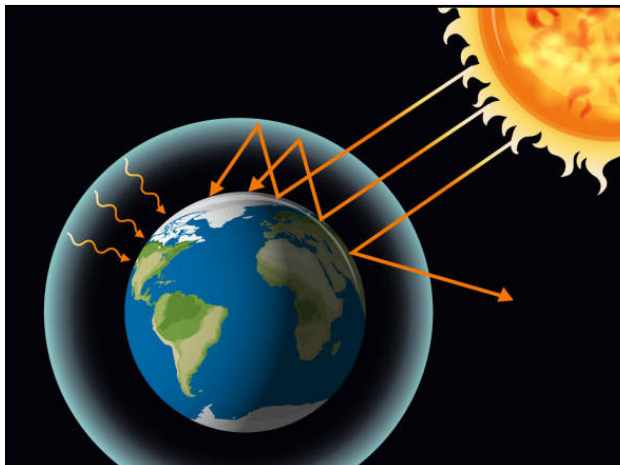
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The green house effect.  
What is this?

### The greenhouse effect



4



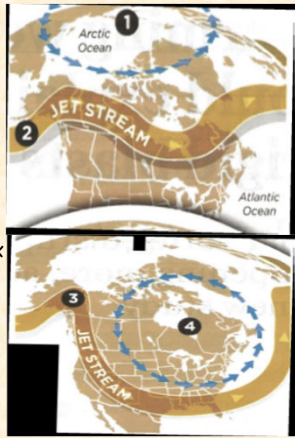
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Typical day in Hong Kong or Beijing.



6

1. Polar vortex is arctic-frigid air normally centered over the North Pole
2. Held in place by jet stream—divides cold air in north from warm air in south
3. Global warming contributes to dislodging the polar vortex and forcing it south
4. Temperatures are colder in northeast to southeast and hot and dry to the west (alternatively occurs in Asia)



7

What are some of the effects of global warming?

- The Ocean Is Getting Warmer.
- The Ice Sheets Are Shrinking.
- Glaciers Are Retreating.
- Snow Cover Is Decreasing.
- Sea Level Is Rising.
- Arctic Sea Ice Is Declining.
- Extreme Events Are Increasing in Frequency

8

### Extreme Events

- Fires and desert
- Floods and draughts
- Hurricanes
- Destruction of forests

9

What about "acid rain"?  
What is it?

Gases produced from the burning of fuels react with the oxygen in the air and water vapor,

transforming into acids that fall onto the earth's surface with rain.

(sum: gases produce both global warming and acid rain)

10

What are the effects of acid rain?

Acid rain has detrimental effects on trees, freshwaters and soils, destroys insects and aquatic life-forms.

It causes paint to peel, corrosion of steel structures such as bridges, and weathering of stone buildings and sculptures, as well as impacts on human health.

11

Stuart discusses two competing explanations for higher global temperatures:

human choices/behaviors  
and  
social structures

How might each of these affect the environment?  
Which is most important?

12

Social structures that affect the environment include:

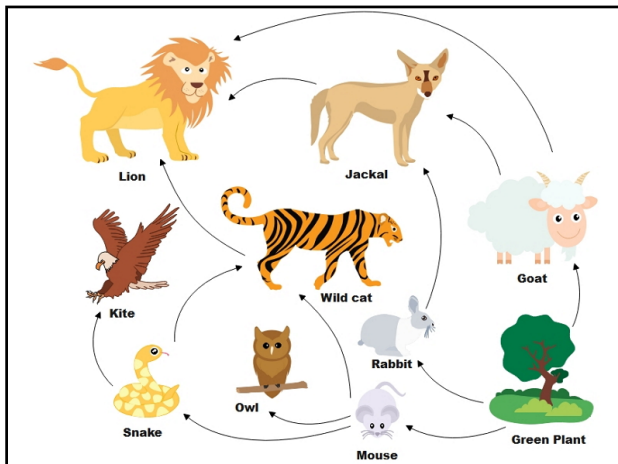
- Transportation systems
- Industries that pollute the air and water
- Media that argue that there is no environmental problem or helps uncover the problems
- Political system that argues against there being a problem or highlights the problems

13

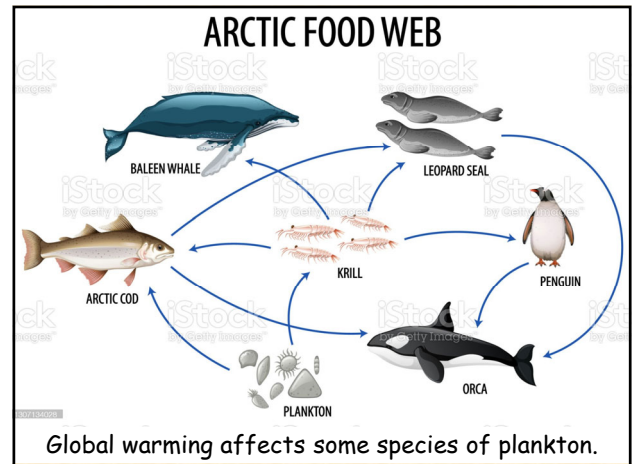
Human choices/behaviors that affect the environment include:

- Driving large automobiles and recreational vehicles that require lots of gasoline
- Use of lawn mowers with no protection from gas escaping during filling
- Political and sport figures, movie stars who announce that there is no problem or highlight the problems

14

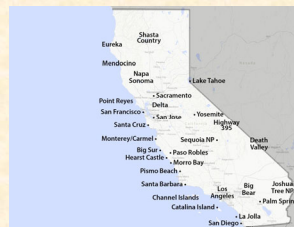


15



16

Example of the environmental problem:  
Los Angeles



17

Los Angeles Air Basin



LA Counties

18



19

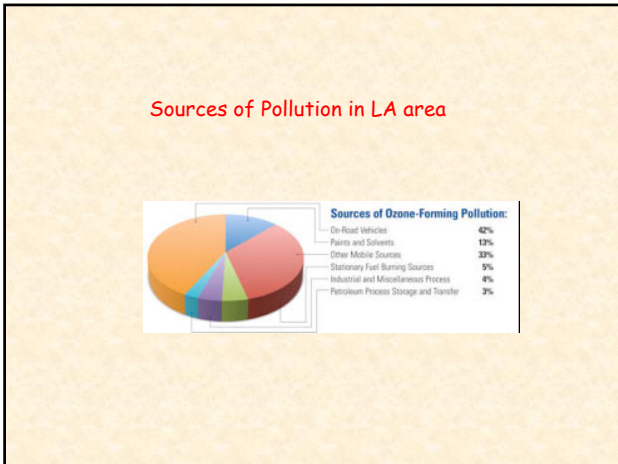
**What is the primary environmental problem in LA?**

Air Pollution including carbon monoxide, lead, tiny particles, sulfur dioxide, nitrogen oxides, oxone

**What would you guess are the primary contributors to LA's air pollution problem?**

30% of pollution from manufacturing;  
70% from mobile sources

20



21

Contributors include:

Individual Transportation

- Automobiles
- Buses
- Growing population (next slide)

Transferring/producing of products into/outof U.S.

- Trucks
- Ships
- Industrial smokestacks
- Planes

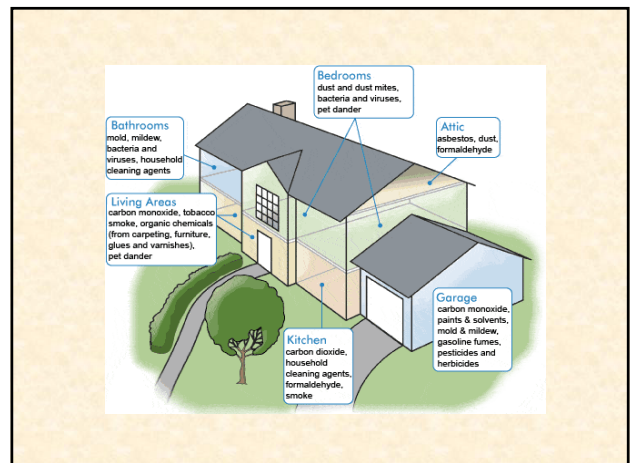
22

**What kinds of problems would you guess the air pollution creates?**

Health issues including:

- premature deaths
- chronic health issues of population such as asthma
- birth defects
- drain on health system
- health care costs

23

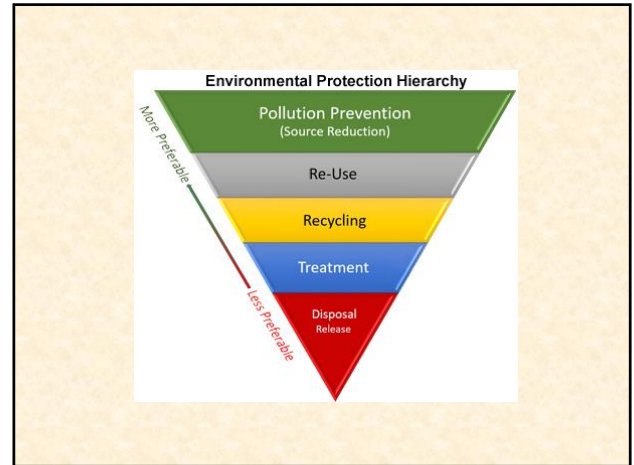


24

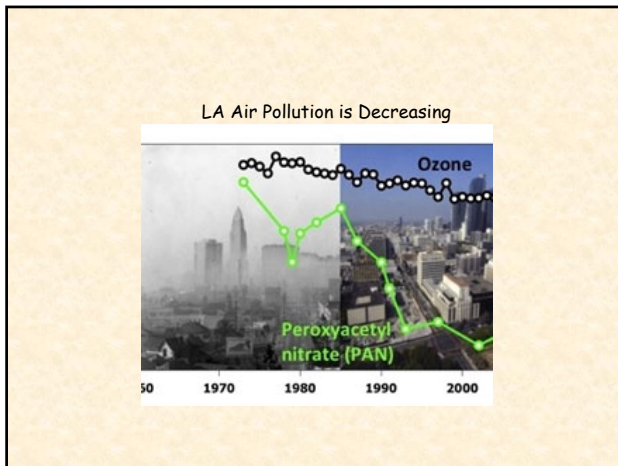




25



26



27



28

Global Warming  
By Al Gore  
(show 17minutes; next time show rest ~8 mins)  
<https://www.youtube.com/watch?v=gVfgkFaswn4>

Study of toxins in lakes that may cause alzheimers (3 mins)  
<https://www.unh.edu/unhtoday/2014/07/are-toxins-escaping-our-lakes>

Robert J. Sampson: Neighborhood Effects and the City (start at 8:00 mins)  
<https://www.youtube.com/watch?v=rnKLIvyF0zc>

29

What Is the Most Sustainable City in the World?(2020: 7:48)  
[https://www.youtube.com/watch?v=fsWrOLfM\\_uQ](https://www.youtube.com/watch?v=fsWrOLfM_uQ)

5 Most Polluted Cities on Earth (start at 6:00; goes until 11:05—5 minutes total)  
<https://www.youtube.com/watch?v=69jwIw4JeVk>

Innovating to zero! | Bill Gates (18:00/29:32)  
<https://www.youtube.com/watch?v=JaF-fq2Zn7I>

30

What is meant by environmental injustice?

The disproportionate exposure of communities of color and the poor to pollution.

The subsequent negative effects on these people's health, well-being, happiness, etc.

For example: placement of air-polluting asphalt plants. Landfills located near minority neighborhoods  
—how could landfills be harmful?

31

What is the biodiversity problem?

- Loss of life to animals, insects, etc.
- Some insects (e.g., bees) are crucial to the food chain and these are being threatened
- Extinction of animal species

How might extinction of a species affect the animal chain?

32