

Hannigan:
Environmental Sociology
Chapter 1

In the beginning of Hannigan's book, like Stuart, he mentions some of the problems being created by global warming.

What kinds of problems/effects contribute to global warming?

One issue he mentions more so than Stuart is effects on water.

How is water affected?

The melting of the earth's ice cover increases the amount of water in the oceans resulting in coastal cities going underwater (e.g., New Orleans)

Melting of mountain snow during the winter resulting in no snow to melt during spring. In past, snow didn't melt until spring and farmers relied on the resulting spring water for growing crops.

With the warmer atmosphere holding more moisture, a lack of fresh water results, producing areas with little water that turn into deserts where food can no longer be grown.

Other factors affected:

- Food security
- International relations
- Political controversy

(how might these latter two be affected)?

How is world population growth related to air pollution? global warming?
Is the world population growing?

- The global population is growing (in 1960 the earth's population was 3 billion and in 1999 six billion and in 2023 it was almost 8 billion)
- As the population grows there will be need for additional basic materials and energy and, as these are produced, more carbon dioxide, methane, and water vapor will be released into the atmosphere (unless people/governments make major changes) increasing, in turn, global warming.

What characteristics of capitalistic countries are contributing to global warming?

- Products have become less expensive (e.g., air travel, automobiles) so people can purchase more things, more things are produced, and subsequently more pollution is produced.
- Capitalism, the goal of companies is to produce more "things" potentially resulting in more use of oil and more discarding of products in landfills.

Capitalism inherently wants to prevent environmental protections that would cost large sums of money to implement.

Why would it cost large sums of money?

Investing in research and development to find new technologies for reducing pollution.

Implementing new technologies to reduce air pollution such as air filters on large industrial smoke stacks.

Costly procedures for disposing of waste products (it's cheaper to dump chemicals/pollutants into the rivers).

How might the melting of the ice caps due to global warming release methane into the atmosphere?

Once Arctic permafrost melts, microbes are able to consume the once-frozen organic matter trapped in the soil.

As a byproduct of this process, microbes produce large amounts of methane, an extremely potent greenhouse gas

What is the most dangerous greenhouse gas: methane or CO²?

Methane has more than 80 times the warming power of carbon dioxide over the first 20 years after it reaches the atmosphere.

Even though CO² has a longer-lasting effect, methane sets the pace for warming in the near term. At least 25% of today's global warming is driven by methane from human actions, including oil and gas companies.

People have differing perspectives or views regarding the existence and extent of global warming and its future.

What would be one perspective or view?

How do the political parties differ in their views?

What is a pessimistic view of future global warming? How about most pessimistic view of the environmental problem?

What is an optimistic view of global warming? Most optimistic view?

What is a pessimistic view of future global warming? How about most pessimistic view of the environmental problem?

What is an optimistic view of global warming? Most optimistic view?

- The most pessimistic view is that it is already too late to fix the problem and we can expect a total collapse of civilization in the next 50 - 100 years (doomsday model).
- More optimistic view is that society will eventually realize the dangers and take whatever action is needed to correct the problem. Until then, it is "business as usual."

Other perspectives:

- Some believe that, if we don't address the problem soon, it will be too late to fix the problem (i.e., too much CO² in the atmosphere to remove). They argue for "no-growth" or perhaps 60% reduction in industry output.
- Some don't believe there is any problem at all. It's all being "made up" by scientists and those supporting the idea of global warming (side note: I saw on social media Babe Ruth didn't exist and we didn't really land on the moon ☺)

When considering those who choose to ignore global warming:

Why would some people (including shareholders and those owning companies) want to ignore scientists and existing evidence?
(e.g., melting of glaciers which is actually visible)

- Capitalists would lose money if more restrictions are placed on their businesses (e.g., pay for new technology to prevent release of pollution into the air or water)

When considering those who choose to ignore global warming:

Other than for financial reasons, why would some people ignore or "downplay" what scientists are reporting?

- Lack of understandable communication to general population about global warming. Complexity of data.
 - Conflicting scientific claims among scientists
 - For some, it is too much trouble to recycle or otherwise change their behaviors to reduce pollution.
 - Materialist lifestyle or the desire to own things
- (continued:)

- It is not intuitive that it is possible that the CO_2 and methane could fill the earth's atmosphere since the atmosphere is so large.
- The arguments highlighting the effects of global warming seem to be counterintuitive—for example, how can you have flooding if the earth is getting hotter--shouldn't the water be evaporating? What do hurricanes and tornados have to do with it?

There seems to be a similar history between:

- (1) industries arguing against major environmental changes and
- (2) tobacco companies that argued smoking cigarettes was not bad for one's health.

What similarities do you see?



Some environmentalists believe the general population needs to change its views and behaviors in order to reduce global warming.

What capitalist views are they suggesting?

- Change the people's capitalist view that "more is better" (i.e., change their norms and values)



- People need to be "freed" from their preoccupation with material goods
- Emphasis should be on repair and maintenance of what we have rather than the production of new things

(more next slide)

- Invest in new technologies that contribute to reductions in CO², methane, and water vapor.
- Recycle everything
- Find ways for people to be productive without producing "things". Example: the service industry.

How might lesser developed nations affect the environment of the future?

- They are trying to catch up to the more developed nations and so are less concerned about pollution of industries and more concerned about the industries being successful and providing jobs.
- So, they will produce more with less concern for the environment.

(the U.S. has 320 million people; China and India each have roughly 1 billion 400 million people—what if they all had their own car)

If the general public were strongly behind a federal government effort to make changes to reduce global warming, is it likely changes would be made?

What steps need to be taken to get information about global warming to the general public so they would be strongly behind it?

Step 1: accumulate all the information we have about the effects of global warming.

What might be the next step?

Step 2: make sure the information given to the general public (and public school systems) is understandable to them and not just to the scientists.

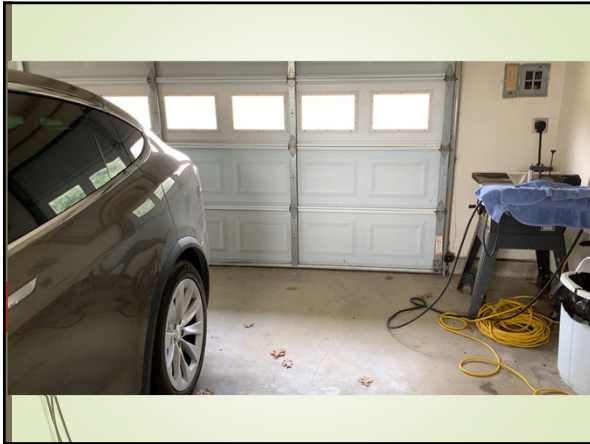
Who could help with this?

- Use NGOs (non-governmental organizations) to get information out.
- Use media outlets (books, TV, radio, magazines, social media)
- The education system

Step 3: gain political support

Why is this particularly difficult to do?

- If the politician pushes for changes to reduce CO₂ and methane, they may lose support from voters
- Difficult to obtain compromises between politicians due to very different perspectives of the seriousness of the problem



Air Pollution In LA At Its Worst (min 2:44)
<https://www.youtube.com/watch?v=dcvJcy1lkU>

History of Southern California Air Pollution (3:33)
<https://www.youtube.com/watch?v=cV414Qg5-DU>

Why LA's Notorious Smog Is Making a Comeback (explains Ozone problem) (2:42)
<https://www.youtube.com/watch?v=H-9yZpsSCqY>

Air Quality Unhealthy Throughout Los Angeles County Due To Active Wildfires (min 2:33)
<https://www.youtube.com/watch?v=jZCIJ8p2Rzk>

How the Covid-19 lockdown affected LA's pollution (min4:14)
<https://www.youtube.com/watch?v=oPeAopQYg6I>

Can Los Angeles Be Sustainable? (6:22)
<https://www.youtube.com/watch?v=nAoZ9U2W-DM>

What Is the Most Sustainable City in the World?(2020: 7:48)
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=69jwLw4JeVK>

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

Attempts to gain support for protecting the environment:

Environmental Awareness Campaign (1:40)
<https://www.youtube.com/watch?v=W5bh1JFo43U>

His Epic Message Will Make You Want to Save the World | Short Film Showcase (4:23)
<https://www.youtube.com/watch?v=B-nEYsyRIYo>

POWERFUL VIDEO: Why We Need to Stop Plastic Pollution in Our Oceans FOR GOOD | Oceana (4:35)
<https://www.youtube.com/watch?v=Yomf5pBN8dY>

How We Can Keep Plastics Out of Our Ocean | National Geographic (3:10)
https://www.youtube.com/watch?v=HQ_TUWK7CM-Y

Kids Take Action Against Ocean Plastic | Short Film Showcase (4:26)
<https://www.youtube.com/watch?v=hKFV9IquMXA>

Debunking 3 myths about air pollution | Nat Geo Explores 2020: (6:10)
<https://www.youtube.com/watch?v=3i7OgR7lrp8>

What makes Delhi's air so deadly (5:40)
<https://www.youtube.com/watch?v=bVzvZxW5n2Q>

Environmental Awareness Campaign (3:00)
<https://www.youtube.com/watch?v=W5bh1JFo43U>

His Epic Message Will Make You Want to Save the World | Short Film Showcase (4:23)
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COVID-19
How the Covid-19 lockdown affected LA's pollution (min4:14)
<https://www.youtube.com/watch?v=oPeAopQYg6I>

The Devastating Effects of Pollution in China (start at 1min show 5:00 mins up to school children)
<https://www.youtube.com/watch?v=q4D1Ohe2lUQ>

Can Los Angeles Be Sustainable? (6:22)
<https://www.youtube.com/watch?v=nAoZ9U2W-DM>

Air Quality Unhealthy Throughout Los Angeles County Due To Active Wildfires (min 2:33)
<https://www.youtube.com/watch?v=jZCIJ8p2Rzk>