Al Gore – The Case of Optimism

Watch the Ted Talk video “Al Gore – The Case of Optimism. <https://www.youtube.com/watch?v=u7E1v24Dllk>

Complete the following questions

1. List 4 sources of manmade global warming pollution
2. How much extra heat energy is being trapped by the oceans and what are the consequences for this?
3. How are these changes affecting the water cycle?
4. How is this affecting glaciers and sea ice? What are the consequences?
5. What are the consequences for food production?
6. What are the consequences for the spread of disease, why?
7. So we must change. Summarize the trends in the recent development of wind and solar energy.
8. How important is the development and use of batteries in offering sustainable and reliable energy? Explain.
9. To conclude, reflect on the facts and arguments presented in this video. Is there really a case for optimism with climate change? Do you think a technocentric, anthropocentirc or ecocentrc appraoch will work best? Justify you answer!

Check your answers

1. List 4 sources of manmade global warming pollution
   1. agricultural practices,
   2. forest burning,
   3. transportation,
   4. the burning of fossil fuels.
2. How much extra heat energy is being trapped by the oceans and what are the consequences for this?

On a global basis, more than 90% of all the extra heat energy trapped by our atmosphere is going into the oceans.

This heat makes ocean-based storms like hurricanes, typhoons and cyclones stronger and more destructive.

1. How are these changes affecting the water cycle?

The extra heat also disrupts the water cycle.

The amount of water vapor that evaporates off the oceans increases as the oceans warm.

That water vapor is carried over the land and often falls in much bigger precipitation events.

When the land can’t absorb all the water that falls in these larger storms and downpours, we see floods and mudslides.

1. How is this affecting glaciers and sea ice? What are the consequences?

This glacier in southwest Greenland had almost completely melted by 2013 due to rising temperatures.

Miami is the number one city at risk in terms of assets at risk – along with Guangzhou China, New York/Newark, and others.

The Department of Defense in the United States has long warned about refugee crises connected to the climate crisis, as well as pandemic diseases, water shortages and food shortages.

1. What are the consequences for food production?

Heat stress is now beginning to decrease crop yields from rice and corn and soybeans.

Exposure to higher levels of carbon dioxide also decreases the nutrient content of many staple crops such as rice, wheat and soy.

1. What are the consequences for the spread of disease, why?

Warmer temperatures have an impact on the spread of tropical diseases. Modern transportation and air travel play a part, but the potential range for many diseases expands as regions farther and farther poleward get warmer. • This means there are more and more places where a disease like Zika can take root.

The main mosquito that spreads Zika (and Dengue and Yellow Fever) is now covering a wider range in a warmer, wetter world. • In warmer temperatures the virus incubates faster, the mosquitos breed more and are able to transmit the disease longer. • The health impacts of the climate crisis are often overlooked, but will affect millions of people.

1. So we must change. Summarize the trends in the recent development of wind and solar energy.

We see an exponential curve when we look at the amount of wind energy being built around the world.

Solar energy is an even more dramatic story.

15 years ago the best projection was that we would install 1 gigawatt of solar energy capacity per year by 2010.

•By 2010, we exceeded that goal by 17 times.

1. How important is the development and use of batteries in offering sustainable and reliable energy? Explain.

Battery storage is an essential part of the green energy revolution. Batteries allow us to store excess solar or wind energy and use it during those times when the sun isn’t shining or the wind isn’t blowing.

• Batteries are also critical for the electric vehicle market.

• As storage technologies get more efficient and cheaper, the market is growing quickly.

9. To conclude, reflect on the facts and arguments presented in this video. Is there really a case for optimism with climate change? Do you think a technocentric, anthropocentirc or ecocentrc approach will work best? Justify you answer!