Renewable Energy in the United States

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In an article from the *Natural Resources Defense Council* "Bangladesh: A Country Underwater, a Culture on the Move" the NRDC (2018) says, "Climate experts predict that by 2050, rising sea levels will submerge some 17 percent of [Bangladesh] land..." But in an article from *The Harvard Crimson* "Sink or Swim: The Climate Crisis We Caused in Bangladesh" by Afiya Rahman (2022) says, "Nearly 75 percent of Bangladesh sits below sea level." This is an extremely frightening fact, and it is due to climate change. One thing that the United States can do to help climate change is to switch to renewable energy like wind and solar power. The article from the *Pew Research Center* "Why Some Americans Do Not See Urgency on Climate Change" the Pew Research Center (2023) interviewed Americans and asked their opinions on renewable energy. "As one participant explained: 'I think we're so reliant on carbon-based fuels for our economy and the way we live. We have to cripple ourselves to switch over.' –Man, 20s, Midwest." Many other Americans also argue that America is not ready for renewable energy, that climate change is an isolated issue, and that people are only thinking about our current problems and how they affect us now. Many also argue that we should stick with conventional agriculture, there are not a lot of benefits to renewable energy, and many flat-out say renewable energy isn't worth it. Although these statements are completely valid, we cannot overlook the threat of climate change. Studies have shown that Americans favor renewable energy, and there are links between multiple climate disasters. Renewable energy is one of the ways to keep our planet healthy for future generations. Also, to help our environment we need to transition to more urban agro-ecological farming, switching it will create energy independence and increased security, and the switch is ultimately inevitable. This issue is incredibly important because this isn't a future problem. It will continue to affect everybody's life, even the people we love the most.

Many argue that America is not ready for the switch to renewable energy, but studies have shown that Americans favor the switch. In the article from the *Pew Research Center* "Americans Largely Favor U.S. Taking Steps to Become Carbon Neutral by 2050" the Pew Research Center (2022) says "Amid growing global energy demand and rising carbon dioxide emissions, majorities of Americans say the United States should prioritize the development of renewable energy sources... becoming carbon neutral by the year 2050." Becoming Carbon neutral means reducing our carbon footprint overall. The entire amount of greenhouse gases that are produced because of human activity is known as a carbon footprint. "Asked to think about the next 30 years, 63% of U.S. adults think air and water quality in their local area would get better if the U.S. greatly reduced energy production from fossil fuels...while greatly increasing production from renewable sources..." (Pew Research Center 2022) Switching to all renewable energy is hard to do because we rely so much on fossil fuels. That often brings up the question of can the United States handle the switch. Even though Americans are all for the idea of all renewable energy it doesn't mean it is going to happen in an instant. An article from *News Nation* called "Can the US electric grid support a full switch to green energy now?" by Tom Palmer (2023) says, "Many experts argue that while transitioning to green energy is essential for the planet's future, the infrastructure and technology required to fully support renewable energy sources are not yet in place." Due to the unpredictability and higher demand that would come with renewable energy, the electric infrastructure, as of now, would not be equipped to manage it. Renewable energy is important for the health of our environment, but America still needs to do a lot of work to get us there.

Moreover, many say that climate change is an isolated issue, but there are links between climate disasters. In this case, there are links between extinction and fires. In an article called "Interconnected Disaster 'The Tip of the Iceberg'" from *SciDev.net - Environment*, Willmer

(2021) says “The report highlights both the knock-on effect of one disaster on others and similarities in root causes. The most common causes were identified as insufficient risk management and undervaluation of environmental costs in decision-making, as well as climate change.” As a society, we often undermine climate change and ignore the issue altogether. But we have to remember that even if it isn’t affecting us right now, it is already affecting other parts of the world. This article touched on the parallels between the paddlefish extinction and the Amazon fires. In the sense that they both were partly caused by changes made to the landscape to extract materials that were valuable economically. “In the case of the Amazon, trees were cut down for agriculture, resulting in declining local rainfall and worsening fires. In turn, deforestation is linked to Western demand for meat, and has a knock-on effect on climate change, exacerbating extreme events elsewhere in the world, says the report” (Willmer 2021). Even though climate change isn’t affecting our lives right now it is affecting our world's poorer countries. In an article from *Internation Monetary Fund* “Linking Climate and Inequality”, Guivarch et al, (2021) says, “While the effects of climate change are global, and their projected impacts concern every area in the world, a wide scientific literature suggests that climate risks disproportionately affect the poorest countries and people, who are more exposed and more vulnerable to their impacts.” In the most impoverished countries, a sizable portion of the population depends on industries like agriculture, forestry, and fisheries that could be severely impacted by climate change. It can be scary to switch to renewable energy because you don’t know what to expect but it is crucial that we do. If climate change is ignored these links are going to grow bigger and bigger and it is going to start to affect all of us.

Another thing is many only think about our current problems and how they affect us now, but it is also important to think of our future. Transitioning to renewable energy is a way to keep our planet healthy and livable for future generations to come. Renewable energy is overall

healthier than non-renewable energy. In the article "Renewable Energy – Powering a Safer Future" from the *United Nations,* the United Nations – Climate Actions (n.d.) says "According to the World Health Organization (WHO), about 99 percent of people in the world breathe air that exceeds air quality limits and threatens their health, and more than 13 million deaths around the world each year are due to avoidable environmental causes, including air pollution." Acid rain and smog are partly caused by nitrogen dioxide, these are released into the atmosphere after the burning of fossil fuels. "In 2018, air pollution from fossil fuels caused $2.9 trillion in health and economic costs, about $8 billion a day." (United Nations n.d.) We can fight air pollution and health problems by utilizing renewable energy sources like solar and wind. If we don't do anything about it our future generations will be consumed by this issue. That is scary because I want kids when I am older and thinking about how their lives can be negatively impacted by an issue that we could have prevented is frustrating.

Also, many argue that we should stick with conventional agriculture, but to help our environment we need to transition to more urban agroecological farming. In the article "Only Ecology-Based Economies Can Avoid Future Catastrophe" from *SciDev.Net*, Khalid (2020) says "Agriculture is the second biggest climate driver. While supermarket supply chains come under extraordinary strain due to panic-buying, the immediate impact of COVID-19 on reducing farm labor puts production at risk." Conventional agriculture increases greenhouse gas emissions, erodes land, contaminates water, and endangers public health. Urban agroecological agriculture contributes to sustainability through water conservation, biodiversity promotion, and carbon emission reduction. "Agriculture is also one of the biggest carbon emitters, with huge inputs of fossil fuels involved in manufacturing pesticides and fertilizer, plus processing, packaging and distribution. These vulnerabilities can be overcome by transitioning to more resilient, local and urban agroecological farming, producing food with far less energy and water, and closer to

consumers". (Khalid 2020) Improved air quality, lower transportation costs, and less runoff from heavy rains are all possible with urban farming. Agroecological farming, in the face of climate change, preserves, renews and enhances agriculture.

Furthermore, many say the only change that will occur if we switch to renewable energy is possible environmental improvement. But switching to all renewable energy will create energy independence and increased security. In the article from *Energy Efficiency & Renewable Energy* called "Energy Independence and Security," the Energy Efficiency & Renewable Energy (n.d.) says "EERE [Energy Efficiency and Renewable Energy] is working to achieve U.S. energy independence and increase energy security by supporting and enabling the clean energy transition. The United States can achieve energy independence and security by using renewable power..." The United States may lessen its need for foreign nations for energy resources and technologies by implementing renewable energy, which also helps remote populations meet their energy demands. There is also the bonus of more job opportunities. "When the United States is self-reliant on energy, it will create more American jobs in the clean power sector and related industries, such as manufacturing." (Energy Efficiency & Renewable Energy n.d.) The security of the renewable energy supply chain will be enhanced by energy independence, provided that domestic sources are used for materials and components. This will promote the success and economic progress of the U.S.

Another thing Americans say is that renewable energy just isn't worth it, but the switch is ultimately inevitable. In an article from *ACCIONA* called "The Enviromental Impact of Non-Renewable Energies: Climate Change and More", ACCIONA (n.d.) says "... if we do not stop using non-renewable energies immediately, the temperature rise that awaits us will bring irreversible changes to our planet - more heat waves, longer warm seasons, shorter cold seasons, a surge in the most extreme weather events etc." If we don't make the switch to renewable

energy our planet is going to become unlivable. That is way Biden has been pushing for renewable energy. In an article called “Energy Experts Share How the U.S. Can Reach Biden’s Renewable Energy Goals” from *NPR*, Mai (2023) says “The Biden administration plans to eliminate fossil fuels as a form of energy generation in the U.S. by 2035. The White House set out a target of 80% renewable energy generation by 2030 and 100% carbon-free electricity five years later.” No matter what people think about climate change it is happening, and there are now things being done about it. “With 79% of total U.S. energy production still coming from fossil fuel sources as of 2021, achieving this goal will require billions of dollars in investments. Last year, investments in America's energy transition hit a new record of $141 billion...” (Mai 2023) Given that the August-passed Inflation Reduction Act allocates over $370 billion in financing and subsidies for environmentally friendly technologies, this trend is anticipated to continue. Fossil fuels are becoming more expensive and unreliable. Because of this, we have no choice but to turn to renewable energy sources like wind and solar. In the future, fossil fuels won’t be the main source of energy but instead going to be renewable energy, which is why it is inevitable.

All things considered, the United States needs to switch to renewable energy. Studies have shown that Americans favor renewable energy, there are links between climate disasters, and renewable energy is a way to keep our planet healthy for future generations. To help our environment we can also switch to urban agro-ecological farming, and by switching we create energy independence and security. Ultimately the switch is also inevitable. I learned a lot from writing this essay. One thing I did learn when researching is that while renewable energy is a good way to start the fight against climate change, it is not always going to be the solution. Renewable energy can sometimes be unreliable, with the production of energy not being consistent. In an article called “The Problem with Renewables, and How to Fix It” from

Sympower, Sympower (n.d.) says “Think of solar panels and wind turbines ... Solar panels need the sun to be shining, and wind turbines need the wind to be blowing. We can’t guarantee that these conditions will always be available. This means there isn’t always going to be a steady output of power if we rely on these renewable sources.” They then go on to say that the solution is to create a more balanced grid, and there needs to be a balance of energy supply and demand. What I learned is that renewable energy isn’t perfect and still has a lot of work to be done. But even though it is sometimes unreliable, it is a positive and very much-needed step we can take to fight this crisis. To save other countries from Bangladesh's fate, we need to do more about the climate crisis to ensure that future generations will have a safe and healthy planet.

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