The Climate Question

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Imagine living on the hottest planet in our solar system: Venus. Everywhere you look, you see large oceans of lava. The main culprit of the extreme heat is carbon dioxide, which makes up 96% of the atmosphere that clouds Venus. Can any living beings survive in an environment like that? Scientists speculate that Venus was once Earth-like. But climate change made it uninhabitable.

Now, let's shift our focus back to our home, planet Earth, and the pressing issue of global warming. Most of us already know what global warming is. But for those who aren't aware, in simple words, global warming is the long-term increase in Earth's average temperature caused by greenhouse gases.

Before we move on, let me share a bit about my background. I come from Niigata Prefecture, a place known for its lush rice fields and heavy snowfall. I bet everyone must have felt extremely hot last summer. Niigata experienced one of Japan's hottest temperatures; a sweltering 39.8℃ last August. That's as hot as a sauna! The one-two punch of extreme heat and a month of no rain really put a dent in rice cultivation. Farmers were so desperate that they had to use water stored up for melting snow. Many dams ran dry, leaving me to witness the surreal sight of a riverbed with no water. Doesn't that sound dystopian to you?

The effects were severe around the world as well. Last year was recorded as one of the hottest years in human history. Tragically, 12,000 people lost their lives due to extreme heat waves, wildfires, and other climate induced disasters. The situation is reaching its boiling point.

Considering these, have you ever pondered to yourself, "How do we solve global warming"? There are many small changes we can make in our daily lives to offset our carbon footprint, and that's great! But what we really need is a substantial change in the way we are producing energy. A change so big that future generations won't have to worry about global warming.

As a student of electrical engineering, I am drawn to the idea that I can make electricity from hydrogen. I feel as if nuclear fusion is the future of sustainable energy production. Allow me to explain what nuclear fusion is.

In nuclear fusion we use hydrogen to make energy. The term "nuclear"

might sound intimidating, but nuclear fusion actually produces hydrogen and helium as byproducts. This hydrogen is then used to make even more energy. Stars make energy this way. Doesn't this potential sound inspiring?

Many of you in the audience have dreams and aspirations, and so do I. My dream is to conduct research on nuclear fusion and find innovative ways to incorporate it into the power grid. I aspire to be THE researcher who will push nuclear fusion to the next level. With my hard work, I know my dream is achievable.

Let's think back to the first question. Can we survive on a Venus-like Earth? If global warming remains unchecked, the answer is NO! This is why we must act quickly to slow down global warming. Personally, I don't want Niigata to be known for heat instead of rice and snow. We only have one planet, and I believe it is our duty to not turn it into another Venus. So, in conclusion, the answer to my climate question is switching from fossils to nuclear fusion. Let's take collective action towards a sustainable future.