Project B Pre-reading Task and Questions

A. How fast is the global access to electricity growing?

The global access to electricity is not growing fast right now, expected to grow only to 92% in 2030 from 91% in 2021.

B. Which regions saw the largest growth in access to electricity?

The region that saw the largest growth in access to electricity in the last 20 years, growing from 58% in 2000 to 99% in 2021.

C. How does living in the urban vs. rural areas correlate to access to electricity?

In general, if one is living in an urban area the access to electricity is more likely than if one lives in a rural area. This is seen in the fact that 80% of the people that did not have access to electricity in 2021 are living in rural areas.

D. Which data is used to gain insights on where people without access to electricity live?

There are two ways to find out where people without access live, first by analysing the nighttime lights through satellite images, and second by doing household surveys. They can be complementary to each other to evaluate local situations.

E. How does MTF assess the quality of access to electricity in a household?

MTF is the Multi-Tier Framework that was developed by ESMAP and SEforALL and assesses the quality of access to electricity in a household based on different attributes such as capacity, quality, and reliability. According to those and other attributes the MTF categorizes the access to electricity in six categories.

F. What is the environmental trade-off for higher tier access to electricity?

From past experiences it has been seen that higher tier access to electricity impacts the environment due to increased greenhouse gas emissions which are a result of creating energy based on fossil fuels. In order to maintain sustainability efforts the increased access to electricity should be based on renewable energy resources.

G. Which regions had the most environmentally sustainable efforts to increase access to electricity? Which regions had it the worst?

Latin America is considered to have made strides towards universal access to electricity while decreasing their greenhouse gas emissions per capita due to their reliance on hydropower as a renewable energy source. The regions that had it the worst are East Asia and Pacific, Middle east and North Africa, which

are also approaching universal access to electricity but also show significant increase in higher greenhouse gas emissions.

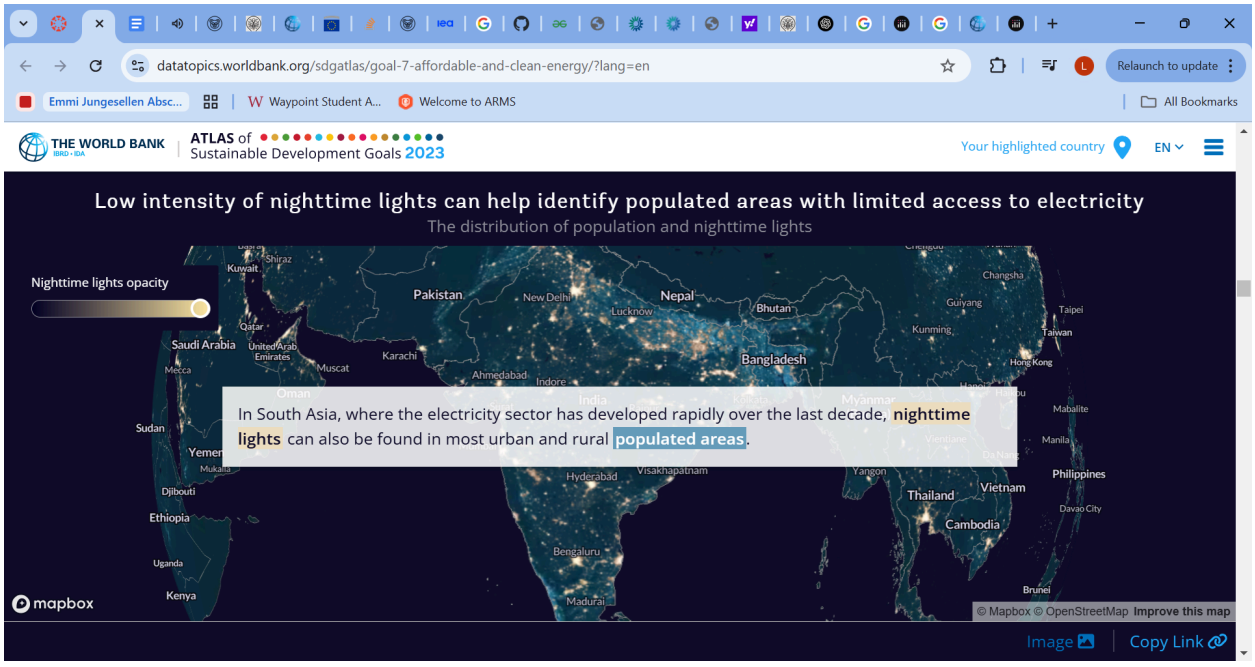
H. Which is the fastest-growing renewable source of electrical energy in the low-income countries? What should be considered when planning for this method of power generation?

The fastest growing renewable energy source in low-income countries is hydropower. But if one wants to build more hydropower systems one should consider that climate change might impact surface water flow.

I. Was this presentation an effective storytelling with data? Why, or why not?

I thought the presentation was effective storytelling with data because they presented a lot of data in different ways but without it being overwhelming. I recognized some strategies from our SwD book, such as simply highlighting important numbers such as the percentage of people living in rural areas from all the people that do not have access to electricity or enhancing important information by creating contrast through bold text etc.

J. Which data visualization from the presentation was most appealing to you?

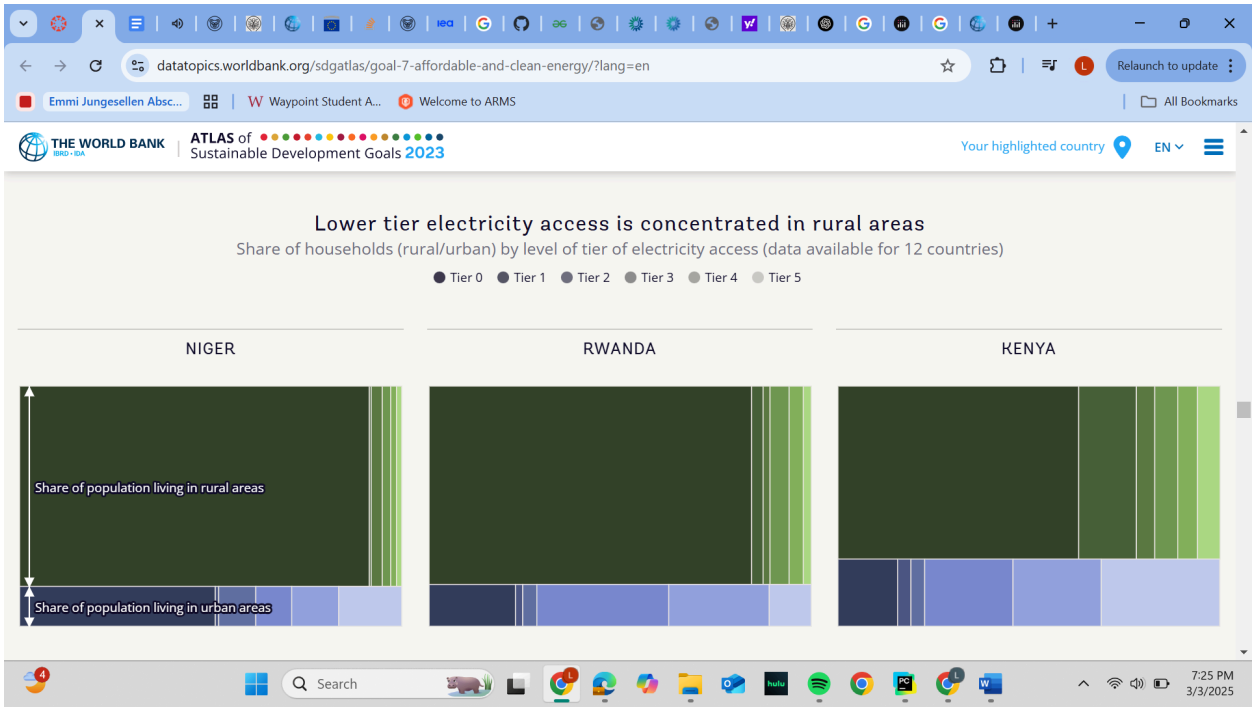


Insert a screenshot and explain why.

I liked this visualization the most because I thought it visualized well the concept of seeing the access to electricity in an area by looking at the nightlights through satellite images. You could clearly see the nightlights, and I liked that it was automatically switching to the region the descriptive text was about. That way I

felt I could really focus on one area at once, instead of going around on a single chloroplast map.

K. Which data visualization from the presentation was least appealing to you? Insert a screenshot and explain why.



This data frame was least appealing to me because it took me a while to figure it out, at the beginning it just looked like a bunch of stacked blocks. With the fact that there are no numbers or axes I could not really get a good sense of the value of each area. I feel like a simple stacked bar graph that shows the values on top of each other would be easier to read as people are more familiar with it.