Creative Coding & Frameworks - Assignment 2: Part B

With this project, I wanted to visualise climate change and its effects on the earth. I have tried to combine a 3D model with the weather API. I wanted to make something dynamic, which would change according to the data fetched using the weather API. The vision was to make the terrain elements: sea, sand, grass, and trees change with the years. The sea level showcased the rising water levels, which often lead to floods in some parts of the world. The sand and grass ratio would also gradually change, with grasslands decreasing and increasing desertification. Similarly, the number of trees would also decrease due to the same reason.

Unfortunately, I have only managed to link the sea level with the sea level pressure data. But, even here, there were limitations, as the data was in an hourly format, which made the changes minuscule and thus, the water level seems to be constant. These changes can be seen on the console when the slider is used but not on the actual 3D model.

The sand, grass and tree elements generate randomly. Going forward, they too could be linked to other APIs, which give deforestation and desertification data. If this is achieved, then all the terrain elements must be linked as well. The trees and grass should not submerge under water. Also, the sea level should be relatively low compared to the land. In its current state the model is small and so the changes are hard to see, this problem will amplify if the above parameters are added, so the number of cubes will also have to increase.