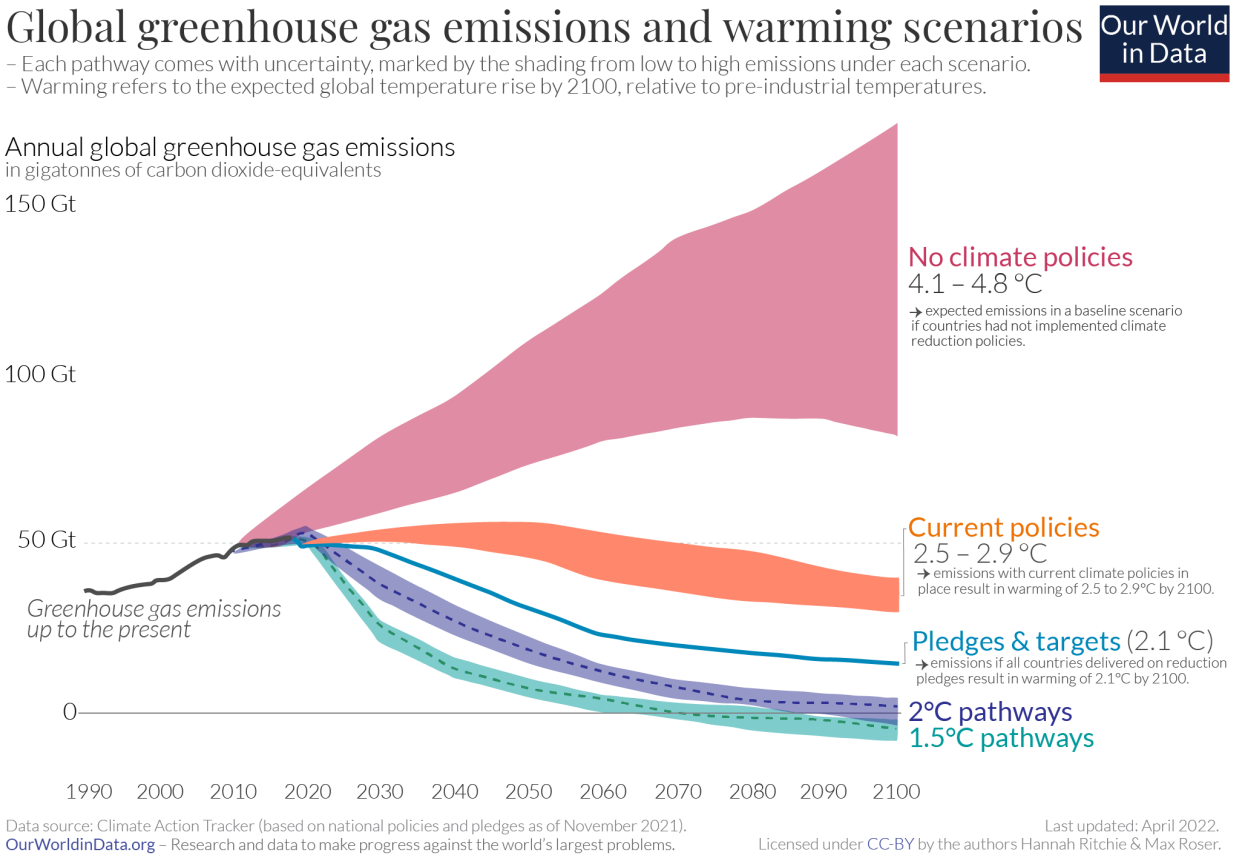
Calculating the impacts of climate change you can expect in your Region at 1.5° and 2° of warming globally—a Regional climate emergency undertaking.

We cannot say for certain what the future will bring in terms of global warming. However, based on the past behavior of governments around the world, we can say that needed change is not happening as fast as is necessary to avoid a global temperature increase of 1.5° within the next few years. Rapid, deep cuts in greenhouse gas emissions probably need to happen within the next decade for the world to avoid warming by approximately 2 - 3° by 2100. Those decisions are not being made yet, nor are such changes happening through the action of industry. The following graph shows the path the world is on re: global warming, based on current data.



More information to explain this graph can be found here.
https://ourworldindata.org/future-emissions

Suggested steps you can take to make your calculations

1. Start with the United Nations Intergovernmental Panel on Climate Change (IPCC) 6th Assessment report Regional Factsheets (from 2021)—providing the key findings from the report by global region.

   https://www.ipcc.ch/report/ar6/wg2/about/factsheets

If you don't have time or resource to do anything else, you can put together a good general report for what can be expected in your part of the world from this fact sheet.

The fact sheets talk about the differences we can expect between global warming of 1.5° and 2°.

2. The IPCC has put together a digital tool (IPCC Interactive Atlas) that with a little study and practice you can use to calculate and visually demonstrate the probably impacts that will occur anywhere on the planet at 1.5° and 2° (and higher, if you like).

   The tool can be found here: https://interactive-atlas.ipcc.ch/

   Eric Toensmeier, climate scientist and RC teacher in Massachusetts, USA, has made this video of how to use the tool. We will offer a webinar/training on this in September.

   https://www.youtube.com/watch?v=KSRl4J3tZLQ

   The tool also lets you download or print out any of the projections that you make so you can show other people later.

There are many other tools online as well, usually more limited. Here are some that seem worth checking out.

3. Climate Impact Lab: https://impactlab.org/map/
   You can choose a US or Global map, set it to measure temperature change from historical levels, at moderate emissions (current level) and look at next 20 years, 2040 – 2069, and 2070 – 2199.

4. Sea level rise calculator/coast risk screening tool:
   https://coastal.climatecentral.org/ There is a 5 minute tutorial on that page.

   Here is a map I created of Seattle… it's easy, just type your city's name in where it says "search places" on the upper right.
   https://coastal.climatecentral.org/map/11/-122.3421/47.6132/?theme=warming&map_type=multicentury_slr_comparison&basemap=roadmap&elevation_model=best_available&lockin_model=levermann_2013&refresh=true&temperature_unit=C&warming_comparison=%5B%221.5%22%2C%222.0%22%5D

5. En-ROADS is a global climate simulator that allows users to explore the impact of roughly 30 policies—such as electrifying transport, pricing carbon, and improving agricultural practices—on hundreds of factors like energy prices, temperature, air quality, and sea level rise. https://www.climateinteractive.org/en-roads/

6. Google Earth sea level rise simulator, toggling back and forth between 2° and 4°. (If we reach 4° of warming, we have really blown it.) Beautiful images, and excellent explanation of what causes sea level rise on page 1 of 8 large cities around the world featured in the lower right.

7. New York Times Climate Risk Map—Lots of information about climate risks globally and by location. Includes good information about the disparate impact of climate change, what they call climate inequality. Just type in your country and it gives some information. And visually very beautiful.
https://www.nytimes.com/interactive/2021/01/28/opinion/climate-change-risks-by-country.html