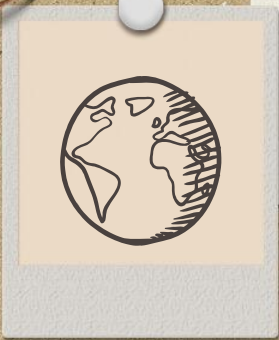


How Climate  
Change Affects  
Food Insecurity  
Rates



Madison Millar





## *Climate change*

- ✘ Climate change is quickly rising to a climate crisis
- ✘ Over the past few decades, the issues surrounding climate has gotten worse
- ✘ This includes the rising issue of food insecurity





PANTONE 108 C



1.

# *Food insecurity and climate change*





## Food insecurity

Is defined as a lack of access to food on a repeated basis. It is a complex problem, which effects people on many levels.

## Climate change

Is defined as a long term shift in temperature and the pattern of weather. The changes may be natural, but since the 1800s, the activities of humankind have been the main driver of the shift

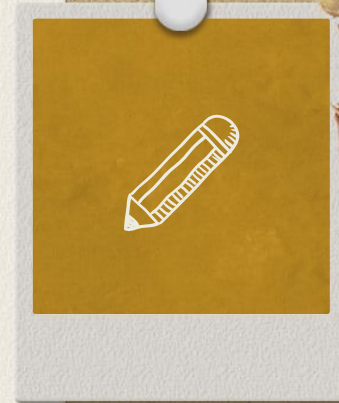




*A picture is worth a thousand words*



Food security relies on four areas and how they interact with each other. These areas are: accessibility, availability, stability, and utilization. Climate change negatively affects all of those areas, worsening the issue of food insecurity worldwide



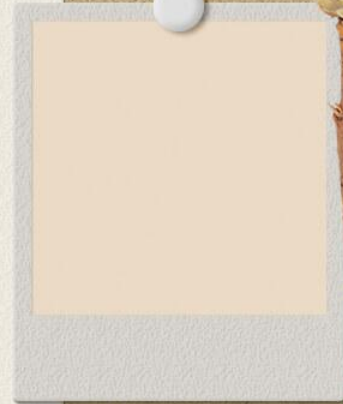


## *Availability*

Climate change affects food availability in many ways:

Rising temperatures lead to rising death rates of pollinators, which leads to a reduced crop yield

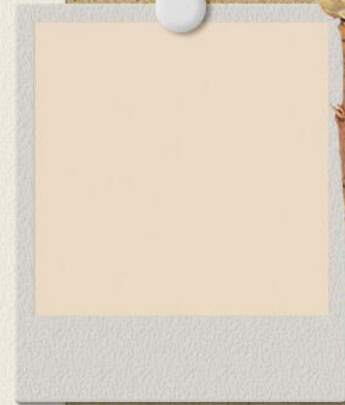
Reduced food quality from toxins in the soil



## *Accessibility*

Climate change causes the price of food to rise, which especially affects low-income consumers

It also causes yield reductions and changes the livelihood of farmers





## *Utilization*

Due to increased prevalence of microorganisms and toxins, food safety is impacted greatly

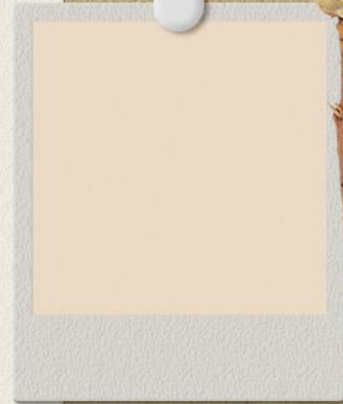
There is also a decline in food's nutritional value from increased CO<sub>2</sub>



## *Stability*

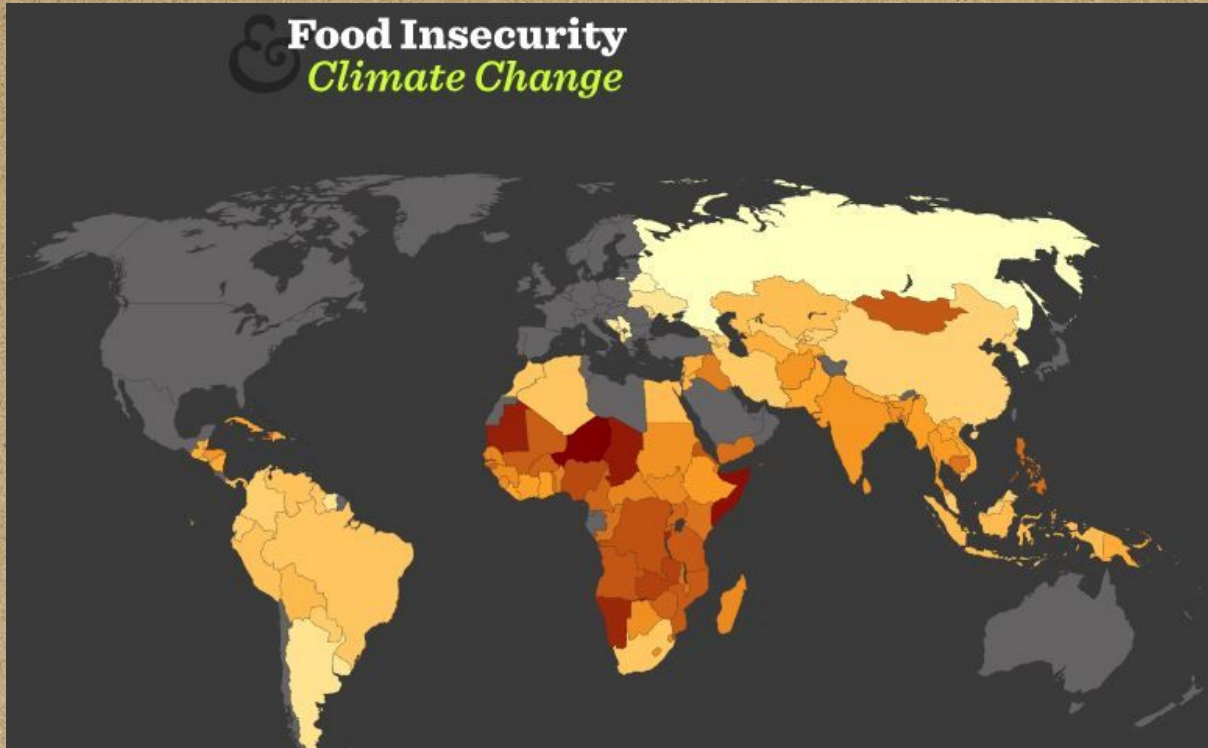
Increased frequency and severity of extreme events increases the instability of supply

Widespread crop failure contributes to migration and conflict





# *Worldwide vulnerability to food insecurity*



Well developed countries, small countries, and countries with little to no domestic production have been excluded.



## *Solano County*

In 2013, 15% percent of people in Solano County struggled with food insecurity.

People living in Solano also had less access to food, as there was less grocery stores per 100,000 population compared to the rest of California.

Approximately 1 of 2 people in solano county live in an area that has limited access to sources of healthy and affordable food.







*What can be done?*



- ✘ The first step to making change about climate change and food insecurity is to raise awareness about the two issues
- ✘ This involves getting the community active in slowing down climate change, and getting food accessible for more people.





- ✘ Besides raising awareness, there is also personal actions that can be done
- ✘ Limit usage of cars, instead opt to bike or walk to your destinations if possible
- ✘ Eating more fruits and veggies, and less meats, can also significantly lower your environmental impact







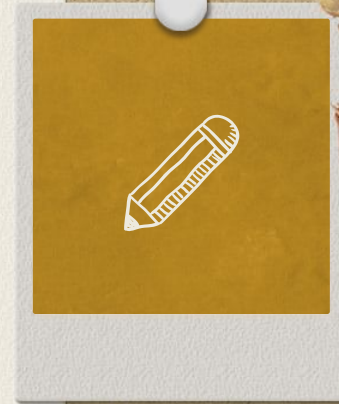
*What can the community do?*



## *Community level actions*

Working as a community can change the attitude towards climate change, which is needed to get positive changes going.

The communities can also help families and individuals struggling with food insecurity through donations, or opening soup kitchens.





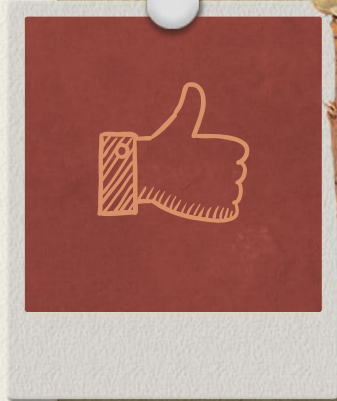


*What Policies can be made?*



## *Policy actions*

Some policies that can be enacted to prevent the issue of climate change and food insecurity is making food more accessible for people in the area. This can be done by preventing restaurants from throwing out excess food and instead giving it to people in need. Policies could also be made towards slowing down Climate change by setting local emission goals and making changes to the meat industry to lower its impact on the environment.





## Citations

“Chapter 5 : Food Security — Special Report on ... - IPCC.” *Food Security — Special Report on Climate Change and Land*, <https://www.ipcc.ch/srccl/chapter/chapter-5/>.

“Climate Change, Global Food Security, and the U.S. Food System.” *USDA*, <https://www.usda.gov/oce/energy-and-environment/food-security#:~:text=Climate%20change%20can%20affect%20food,production%2C%20transportation%2C%20and%20storage.>

Pidcock, Roz. “Interactive: How Climate Change Shapes Food Insecurity across the World.” *Carbon Brief*, 3 Oct. 2019, <https://www.carbonbrief.org/interactive-how-climate-change-shapes-food-insecurity-across-the-world>.

“What Is Climate Change?” *United Nations*, United Nations, <https://www.un.org/en/climatechange/what-is-climate-change>.

“What Is Food Insecurity in America?” *Hunger and Health*, 18 Nov. 2021, <https://hungerandhealth.feedingamerica.org/understand-food-insecurity/>

“Solano County Food Environment Indicators.” *Solano County*, Apr. 2016, <https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=26177>.

