

# Global Climate Change

## Changing Weather Patterns

### ICE DECLINE

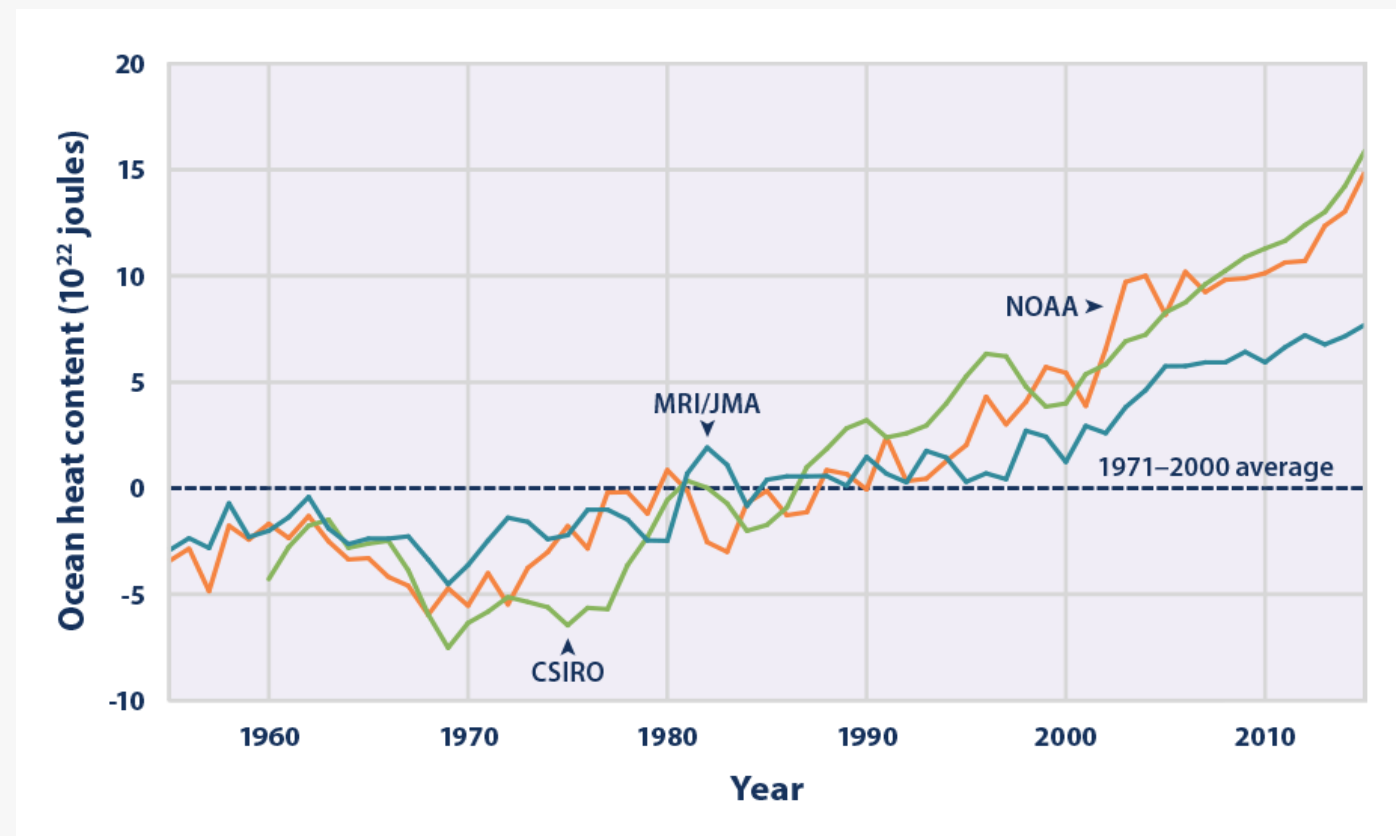
Ice had declined at a rate of 6.5% per year from 1979-2001, but now it is declining twice as fast (Kerr, 2012). Ice coverage was around 10 million square kilometers in the late 20th century but has plummeted to under 8 million square kilometers in just decades (Kinnard et al, 2011).

### OCEAN WARMING

Effects: Decreasing oxygen gas, coral bleaching, smaller organisms, and food web changes (Harvey, Gwynn-Jones, & Moore, 2013). Fish and invertebrates migrate toward higher latitudes and deeper waters (Cheung, Watson, & Pauly, 2013).

### CO<sub>2</sub> RISE

The atmospheric carbon dioxide concentration was 280ppm, but as of 2012, the concentration has skyrocketed to 391 ppm (Harvey, Gwynn-Jones, & Moore, 2013)



### SEA LEVEL RISE

We have seen nearly 80 centimeters rise in sea level since around 1995 from the melting ice. However, there are ways to coexist with these detrimental ramifications. For example, the Dutch have combated this problem by expanding rivers, creating pools, and maximizing the benefits of the excess water.

### HOW CAN YOU HELP?

You can take action to combat global climate change! Here are some starting points:

- Use heating only when necessary
- Reduce energy consumption
- Reduce, Reuse, Recycle!
- Use resources wisely!



Global Climate Change. (2014, June 02). Retrieved November 30, 2017, from <https://climate.nasa.gov/>  
The Global Impacts of Rapidly Disappearing Arctic Sea Ice. (n.d.). Retrieved November 30, 2017, from [https://e360.yale.edu/features/as\\_arctic\\_ocean\\_ice\\_disappears\\_global\\_climate\\_impacts\\_intensify\\_wadhams](https://e360.yale.edu/features/as_arctic_ocean_ice_disappears_global_climate_impacts_intensify_wadhams)  
Sea level | NASA Global Climate Change. (2017, September 13). Retrieved December 05, 2017, from <https://climate.nasa.gov/vital-signs/sea-level/>  
Climate Change Indicators: Ocean Heat. (2016, December 17). Retrieved November 29, 2017, from <https://www.epa.gov/climate-indicators/climate-change-indicators-ocean-heat>