

**Forum:** Special Conference – Human Environmental Indifference

**Issue:** The issue of climate change and its impact on the state of the world's waters

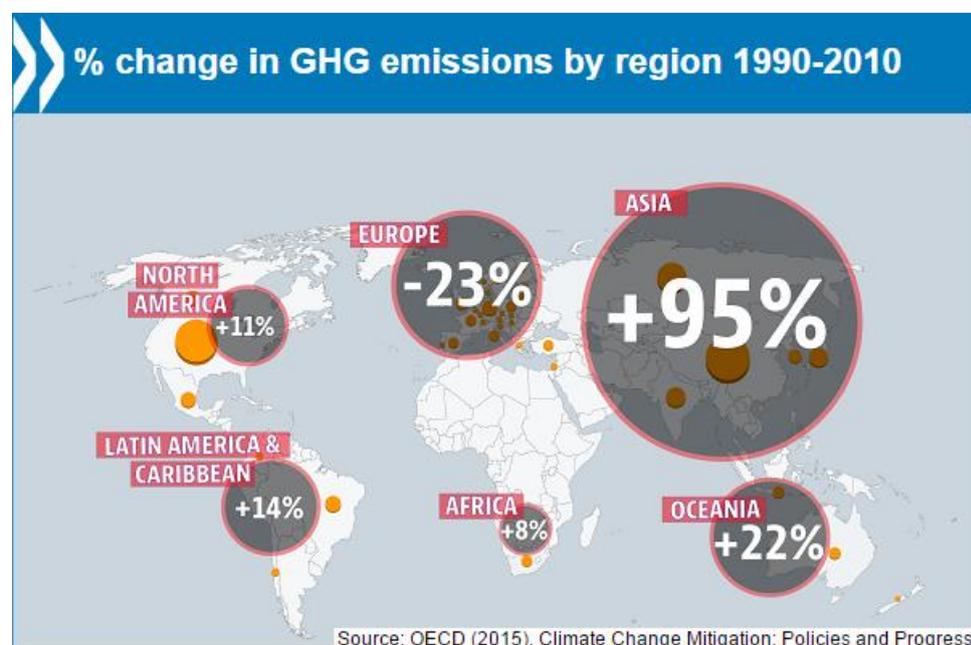
**Position:** Deputy chair of Special Conference – Human Environmental indifference (Martyna Tomczyk)

## Introduction

Earth's climate has been changing constantly. Climate Change is the defining issue of our time and we are at a defining moment. According to data, the global surface temperature warmed by 0.85°C on average between 1880 and 2012, and each of the last three decades was warmer than the previous one. Statistics also show that the period from 1983 to 2012 was likely the warmest 30-year period of the past 1,400 years in the Northern Hemisphere.

After more than a century and a half of industrialization, deforestation, and large scale agriculture, quantities of greenhouse gases in the atmosphere have risen to record levels not seen in three million years.

The evidence of climate change are indisputable. This problem leads to many irreversible things, such as changes in the frequency, intensity, duration, spatial extent and timing of extreme weather events, the state of world's waters, ecosystem and many more.



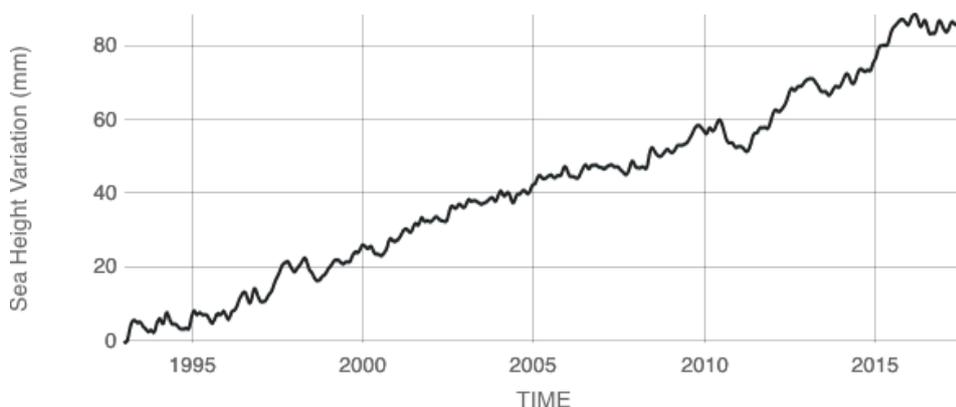
## Climate change impact on world's waters

### Water access

Climate change is already affecting water access for people around the world, causing more severe droughts and floods. It impacts the water cycle by influencing when, where, and how much precipitation falls. Increasing global temperatures causes water to evaporate in larger amounts, which will lead to higher levels of atmospheric water vapor and more frequent, heavy, and intense rains in the coming years.

### Sea level rising

Firstly, As the ocean warms, freshwater glaciers around Earth begin to melt at an unsustainable rate, which results in rising sea levels. Secondly, ocean water expands as it warms, increasing its volume, so the water in the ocean takes up more space and sea level is higher. With the rising of sea levels, saltwater can more easily contaminate underground freshwater-bearing rocks, called aquifers. A process called desalination removes salt from saltwater, but it is a last-resort, energy-intensive, costly process for places where there are persistent droughts, and freshwater is lacking.



Source: [climate.nasa.gov](http://climate.nasa.gov)

### Weather changes

Climate warming is causing changes to weather in different regions of the world. In particular, it is causing more extreme weather events than we have seen in the past. The extreme weather events have a huge impact on human health and taxing people's ability to cope with heat, drought or flood. With more evaporation, there is more water in the air so storms can produce more intense rainfall events in some areas, which poses high environmental risk but also threatens people's lives.

### Ocean water is getting warmer and growing acidic

Warmer waters in the shallow oceans have contributed to the death of about a quarter of the world's coral reefs in the last few decades. Many of the coral animals died after weakened by coral bleaching, a process tied directly to warmed waters. Also, corals and other marine life find it more difficult to grow their shells and bones as seawater takes in carbon dioxide from the atmosphere and becomes more acidic.