Research Report: Effect of Global Warming

# Wikipedia Summary

Effects of climate change are well documented and growing for Earth's natural environment and human societies. Changes to the climate system include an overall warming trend, changes to precipitation patterns, and more extreme weather. As the climate changes it impacts the natural environment with effects such as more intense forest fires, thawing permafrost, and desertification. These changes impact ecosystems and societies, and can become irreversible once tipping points are crossed. Climate activists are engaged in a range of activities around the world that seek to ameliorate these issues or prevent them from happening.   
The effects of climate change vary in timing and location. Up until now the Arctic has warmed faster than most other regions due to climate change feedbacks. Surface air temperatures over land have also increased at about twice the rate they do over the ocean, causing intense heat waves. These temperatures would stabilize if greenhouse gas emissions were brought under control. Ice sheets and oceans absorb the vast majority of excess heat in the atmosphere, delaying effects there but causing them to accelerate and then continue after surface temperatures stabilize. Sea level rise is a particular long term concern as a result. The effects of ocean warming also include marine heatwaves, ocean stratification, deoxygenation, and changes to ocean currents.: 10  The ocean is also acidifying as it absorbs carbon dioxide from the atmosphere.   
  
The ecosystems most immediately threatened by climate change are in the mountains, coral reefs, and the Arctic. Excess heat is causing environmental changes in those locations that exceed the ability of animals to adapt. Species are escaping heat by migrating towards the poles and to higher ground when they can. Sea level rise threatens coastal wetlands with flooding. Decreases in soil moisture in certain locations can cause desertification and damage ecosystems like the Amazon Rainforest.: 9  At 2 °C (3.6 °F) of warming, around 10% of species on land would become critically endangered.: 259   
Humans are vulnerable to climate change in many ways. Sources of food and fresh water can be threatened by environmental changes. Human health can be impacted by weather extremes or by ripple effects like the spread of infectious diseases. Economic impacts include changes to agriculture, fisheries, and forestry. Higher temperatures will increasingly prevent outdoor labor in tropical latitudes due to heat stress. Island nations and coastal cities may be inundated by rising sea levels. Some groups of people may be particularly at risk from climate change, such as the poor, children, and indigenous peoples. Industrialised countries, which have emitted the vast majority of CO2, have more resources to adapt to global warming than developing nations do. Cumulative effects and extreme weather events can lead to displacement and migration.  
  
  
  
  
Global warming affects all parts of Earth's climate system. Global surf

# Wikipedia References

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http://www.grida.no/climate/ipcc\_tar/vol4/english/016.htm [Credibility Score: 3/5]

http://www.ncdc.noaa.gov/paleo/globalwarming/proxydata.html [Credibility Score: 5/5]

https://docs.google.com/file/d/0B1gFp6Ioo3akYklZcWkwWHJud00/edit?pli=1 [Credibility Score: 3/5]

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