



ACET-GLOBAL

Climate Change Information and Documentary Links



Climate Change Resources and Links

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Introduction

Climate changes have always affected societies and ecosystems

Climate change, whatever the cause, has profoundly affected human societies and the natural environment in the past. Throughout history there are examples of societal collapse associated with regional changes in climate, ranging from the decline of the Maya in Mexico (linked to drought) to the disappearance of the Viking community from Greenland in the fifteenth century (linked to decreasing temperatures). Some of these regional climate changes occurred rapidly, on timescales like current rates of global climate change.

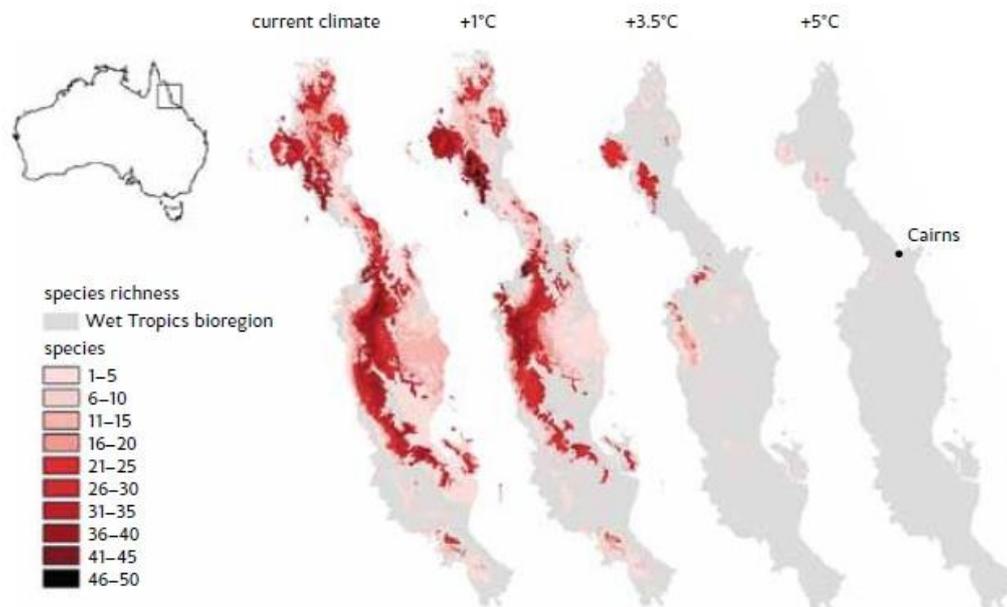
Impacts from human-induced climate change are already occurring

The clearest present-day impacts of climate change in Australia and elsewhere are seen in the natural environment and are associated with warming temperatures and increases in the number, duration and severity of heatwaves. These impacts include changes in the growth and distribution of plants, animals and insects; poleward shifts in the distribution of marine species; and increases in coral bleaching on the Great Barrier Reef and Western Australian reefs. Some of these changes can directly affect human activities; for example, through the effects of changing distributions of fish and other marine organisms on commercial and recreational fisheries, and the impacts of coral bleaching on tourism.

The impacts of future climate change and related sea-level rise will be experienced in many areas, from the natural environment to food security and from human health to infrastructure.

Ecosystems: Among Australia's terrestrial ecosystems, some of the most vulnerable to climate change are (1) alpine systems as habitats shift to higher elevations and shrink in area; (2) tropical and subtropical rainforests due to warming temperatures (moderated or intensified by rainfall changes); (3) coastal wetlands affected by sea-level rise and saline intrusion; (4) inland ecosystems dependent on freshwater and groundwater that are affected by changed rainfall patterns; and (5) tropical savannahs affected by changes in the frequency and severity of bushfires.

Climate warming causes land and ocean life to migrate away from areas that have become too warm, and towards areas that previously were too cool. In many places, climate change is likely to lead to invasion by new species and extinctions of some existing species that will have nowhere to migrate, for example because they are located on mountain tops. Seemingly small changes, such as the loss of a key pollinating species, may potentially have large impacts



The effects of climate change elsewhere will impact Australia

Human society is now globally interconnected, dependent on intricate supply chains and a finite resource base. The global population now exceeds 7 billion people and is expected to increase to 9.6 billion by 2050; half of all fresh water and almost a quarter of global plant productivity is appropriated for human use; forecast yield gaps for major crops are increasing, especially in developing countries, and some yields may be reaching biophysical limits; 145 million people live within one meter elevation of sea level, with around 72% of these in Asia.

In this interconnected world, many risks to Australia from climate change, and potentially many opportunities, arise from impacts outside our national borders. For example: (1) sea-level rise and extreme events will threaten coastal zones, Pacific small island states, and large urban centers in Asian mega deltas; (2) global food production and trading patterns will change as present-day exporters see production fall, and as new exporters emerge; (3) climate change may exacerbate emerging humanitarian and security issues elsewhere in the world, leading to increased demands on Australia for aid, disaster relief and resettlement.

The further global climate is pushed beyond the envelope of relative stability that has characterized the last several thousand years, the greater becomes the risk of major impacts that will exceed the adaptive capacity of some countries or regions. Australia is a wealthy, healthy and educated society well placed to adapt to climate change and with the capacity to help address the impacts of changing climates elsewhere in the world.

Top Documentaries on climate change.

1. Chasing Ice – Best global warming documentary

A National Geographic photographer installs time-lapse cameras to capture a multi-year record of the world's changing glaciers across the Arctic. The images are beautiful and the photographer's personal commitment to raising awareness about climate change is inspiring

<https://youtu.be/eIZTMVNBjc4>

2. This changes everything

Inspired by the best-selling book of Naomi Klein, this sustainability documentary portrays seven communities on the front lines in the fight against the fossil fuel industry. In this way, the film illustrates the shift in climate change activism towards civil disobedience and direct action

<https://thefilm.thischangeseverything.org>

3. An Inconvenient Truth (2006)

Davis Guggenheim Oscar winner turns an essay into confrontational cinema. Based on a slideshow presentation on global warming that Al Gore was touring the world with at the time, the film grounds the viewer with a profile on the former US vice president and then fleshes out the doom-like ramifications of which he speaks. Gore's life has not been easy, and his reasoning for why we should care and do something about climate change stems from his hardships.

<https://youtu.be/Bu6SE5TYrCM>

4. The Age of Consequences

This movie looks at the effects of global warming through the lens of national security and global stability. The global warming documentary interviews multiple admirals, generals, security experts and military veterans, on their perspectives of how climate change intensifies social tensions and conflict.

<http://theageofconsequences.com>

5. Before the Flood (2016)

This National Geographic Documentary features Leonardo DiCaprio's journey to five continents and the Arctic. You witness climate change first-hand and meet people who are taking action against it. This is one of the best global warming documentaries to refresh the basics of climate change

www.beforetheflood.com

6. Disobedience – An inspiring documentary on global warming

Disobedience follows people around the world who are standing up to the fossil fuel industry. This documentary about global warming portrays the next phase of the climate justice movement: Non-violent civil disobedience is becoming the new normal.

<http://watchdisobedience.com>

7. Abrupt Impacts of Climate Change (2014)

Climate change is occurring, is caused largely by human activities, and poses significant risks for--and in many cases is already affecting--a broad range of human and natural systems. The compelling case for these conclusions is provided in *Advancing the Science of Climate Change*, part of a congressionally requested suite of studies known as *America's Climate Choices*. While noting that there is always more to learn and that the scientific process is never closed, the book shows that hypotheses about climate change are supported by multiple lines of evidence and have stood firm in the face of serious debate and careful evaluation of alternative explanations.

<https://www.youtube.com/watch?v=Yqhv3GgTdtA>

8. Disobedience – An inspiring documentary on global warming (2015)

A straightforward explanation of Climate Change: the heat from human emissions is roughly equal to exploding 400,000 Hiroshima atomic bombs every day. Historically, every time carbon dioxide levels increase in Earth's atmosphere, the average surface temperature increases, ice melts, and the seas rise.

<https://www.youtube.com/watch?v=ifrHogDujXw>

Additional Climate Change Information

Climate change and sustainability

Climate change caused by the global increase in temperatures triggers multiple negative effects on the planet. These effects interrelate with each other and increase their violence, putting at risk the species that inhabit the Earth, including the humans.

Three main levels of climate change impact

The global increase in temperatures can influence the physical, biological and human systems.

First, variations in the physical systems of the planet can be observed in the melting of the poles, which at the same time cause glacial regression, snow melting, warming and thawing of permafrost, flooding in rivers and lakes, droughts in rivers and lakes, coastal erosion, sea level rise and extreme natural phenomena.

In the biological systems, there is death of flora and fauna in terrestrial and marine ecosystems, wildfires and flora and fauna displacement searching for better life conditions.

In human systems, climate change affects and destroys crops and food production, causes disease and death, destruction and loss of economic livelihoods and migrations of climate refugees.

Interrelationships between the effects of climate change

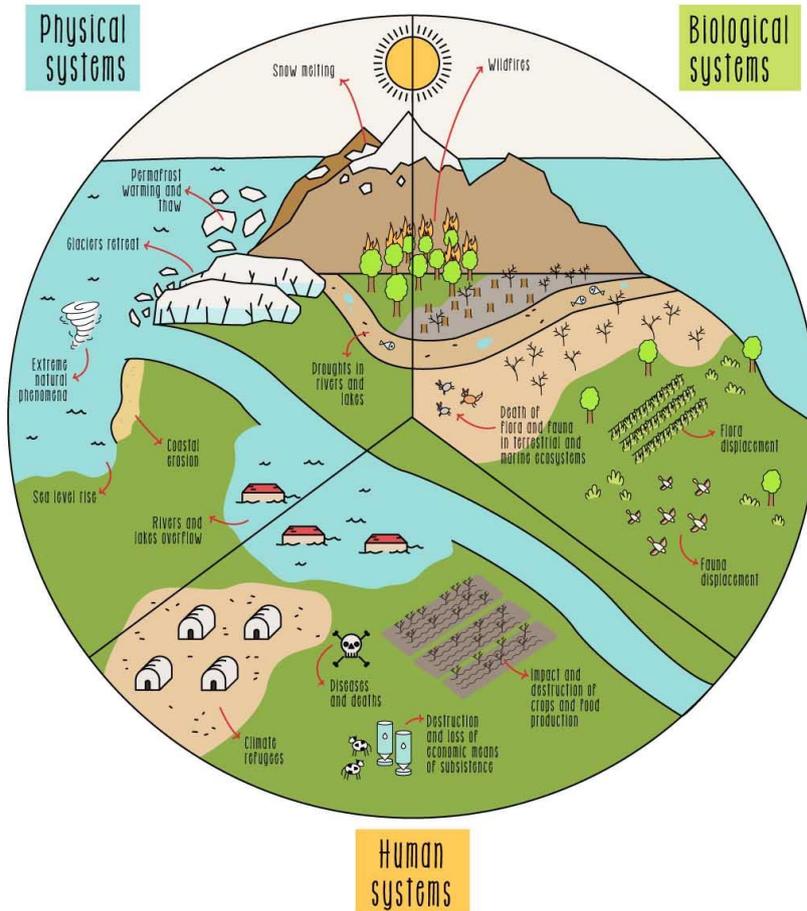
In addition, these negative consequences feed each other back and increase their magnitudes; for example:

- Droughts frequently cause wildfires, which then destroy crops.
- The melting of glaciers, snow and ice causes sea level rise, which erodes the coast and involves the destruction of many economic means of subsistence.
- Droughts, rising sea levels, extreme natural phenomena and floods cause climate refugees.

What are the impacts of climate change?

Impacts of climate change

The global increase in temperatures causes variations in the:



The changes that affect the different systems are related to each other.