

IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH, MIGRATION & TRANSPORT

CLIMATE CHANGE IS THE ABNORMAL VARIATIONS TO THE CLIMATE AND EFFECTS THE WEATHER, THE TEMPERATURE & THE TYPE OF NATURAL DIASERS THAT OCCUR ON EARTH

These changes can occur due to:

- variations in the amount of solar radiation reaching the earth
- changes in the reflectivity of earth's atmosphere and surface
- changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (due to industry, increase use in transport and burning of fossil fuels the greenhouse effect is affected)

Climate change and the hydrosphere, atmosphere and biosphere, including:

- water stored in ice and oceans, and changing sea levels
- carbon stored in ice, oceans and the biosphere
- incidence and severity of extreme weather events, including drought
- spatial changes in biomes, habitats and animal migration patterns
- changes to agriculture, including crop yields, limits of cultivation, soil erosion
- impacts on people and places, including health hazards, migration and ocean transport routes

CLIMATE CHANGE EFFECTS:

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150 MILES



HUMAN HEALTH

- Having an increase in temperatures can lead to an impact on:
- respiratory and length of heat waves = increased amount of heat-induced deaths
 - warmer temperatures and shifting weather patterns = worse air quality
 - rising CO2 and warmer temperatures = affect on airborne allergens
 - unhealthy level of ground-level ozone = more smog = risk of premature death and more respiratory problems and irritating fine particles = respiratory and circulatory diseases
 - increased severity and frequency of wildfires = Australia
 - dependent population most vulnerable if crops burnt down = vulnerable populations in EDCs
 - increased heavy rainfall, flooding, droughts and storms = reduced availability of resources = damaging freshwater and accessibility carbon monoxide poisoning = mental health impacts (depression and PTSD)
 - increased health/humidity = increased amount of mosquitoes, ticks and flea populations

Many of these effects will be long term if the temperatures stay constant. Furthermore the effects are global as temperatures are changing all over the world but the different effects are local due to surroundings and populations.

MIGRATION

People can choose to move either because they are forced to, often natural disasters pushing them out or because they desire something better than they have currently got.

● BANGLADESH

- Migration = "Boats pass where our land was"
- Bangladesh's climate refugees
- Flooding forced people to move out of their homes
- 8 million people in 32 districts affected by the floods - 307,000 people staying in emergency shelters
- 1,945 medical teams deployed
- 103,855 houses destroyed and 633,792 houses damaged as well
- 4,536 school and couple of hundred thousand acres of farm land flooded
- Had to move to the city as coastal regions receiving strong storms and coastal erosion - increase dependency on city to provide for a bigger population
- Dhaka - increased population and slums because of climate change



TRANSPORT

Transport can be affected for many different reasons, whether it's due to an unusual change in temperature that the materials aren't used to, or a natural disaster which again is unusual. Therefore the area is not used to so endangers people and infrastructures.

- High temperatures = expanding concrete and rails - damaging roads and railways
- Increase in storms = flooding and landslides = blocking roads and rails
- Vehicles = overheating = deteriorate quicker
- Warm water = better = sea = faster vehicles
- Arctic ice melts = new water ways
- More water = quicker transport
- Waterways stay open for longer - Venice
- Normal ships able to transmit arctic
- Canals become deeper allowing bigger vessels to transmit
- Inland water ways = shallower
- Canals affected by debris deposited by floods
- Airports built on permafrost ground will be forced to relocate or rebuild due to the permafrost melting causing structural damages
- Increase in storms will force airports to close more frequently especially in areas susceptible to tropical storms

● ARCTIC OCEAN NEW SHIPPING ROUTES

- the Northern Sea Route (the shipping route along Russia's north coast)
- Sea-ice is in a committed, long-term decline as the polar north warms
- "If we experience a 2-degree increase in global temperatures, we will get close to an Arctic that is effectively ice-free for part of the year that's less than a million sq km of ice cover", said Reading's Dr Ed Hawkins. Sea-ice is in a committed, long-term decline as the polar north warms
- For journeys between Europe and Asia, the Northern Sea Route can already be two to three weeks faster than the Suez Canal.

