

Impacts

Climate Change



It is getting warmer and the Arctic is warming 3-4 times faster than the rest of the Globe

Climate Change is already today impacting species, ecosystems and human livelihoods.



Glacial melt contribute to global sea-level rise

- Arctic and alpine glaciers, and the Greenland Ice Sheet are shrinking, thereby contributing to Climate Change.



Species distributions change

- Species move north or up mountains, thereby changing local resource availability
- Increasing temperatures pave the way for invasive species and new diseases/parasites



Arctic sea-ice disappears

- Changes local transport traditions
- Access to new fishing, hunting and mineral exploitation areas
- Potential new shipping routes along Northwest and Northeast Passages



Extreme events occur more frequently

- Icing events prevent caribou/reindeers from reaching food, resulting in increased mortality
- Increased lightning and wildfire emit CO₂ and favor fire tolerant species
- Lack of sea-ice and more storms result in increased coastal erosion



Snow cover is reduced

- Less snow results in less ski days and alter local hydrology
- Increased variation in snow cover causes ecological mismatch, e.g. occurrence of flowers and insects do not match



Rock slides and avalanches become more frequent

- Permafrost melt and freeze/thaw events increase the risk of rock slides and avalanches, potentially damaging housing / infrastructure



Permafrost thaws

- Releasing more greenhouse gases from decomposition of previously frozen plant material
- Causing houses and roads to collapse as soils become unstable