



Convention on
Biological Diversity

Polar ecosystems are home to an array of plants and animals that survive in some of the most extreme conditions in the world. Polar regions are now experiencing some of the most rapid and severe climate change on Earth, which will contribute to environmental and socio-economic changes, many of which have already begun.

POLAR BIODIVERSITY AND CLIMATE CHANGE

PROJECTED WARMING IN THE 21ST CENTURY IS EXPECTED TO BE GREATEST OVER LAND AND AT HIGH NORTHERN LATITUDES.

Sea ice is projected to shrink in both the Arctic and Antarctic. Under some climate change projections, **ARCTIC LATE-SUMMER SEA ICE DISAPPEARS ENTIRELY** by the latter part of the 21st century.



The last time polar regions were significantly warmer than present for an extended period (about 125,000 years ago), **REDUCTIONS IN POLAR ICE VOLUME LED TO 4 TO 6 METRES OF SEA LEVEL RISE.**

The progressively earlier breakup of the Arctic sea ice is affecting polar bears by giving them less time to hunt. From 1980 to 2004, **THE AVERAGE WEIGHT OF FEMALE POLAR BEARS** in western Hudson Bay, Canada, decreased by 143 pounds.

Reduced sea-ice extent is believed to have caused a **50% DECLINE IN EMPEROR PENGUIN POPULATIONS** in Terre Adélie.

The conservation of biodiversity is a key option for the adaptation to climate change. Activities for the adaptation of polar ecosystems to climate change should also make use of local and indigenous knowledge and participation. Indigenous people can contribute to the understanding of changes in the Arctic through their observations and perspectives on changes in biodiversity and ecosystem functioning.

