



# CLIMATE CRISIS IN ANTARCTICA

## THE PROBLEM

- The polar regions are heating up more quickly than the rest of the globe. During the second half of the twentieth century, parts of Antarctica warmed more than two times faster than the global average.
- The global ocean has absorbed more than 93% of the excess heat from climate change since the 1970s. The Southern Ocean has absorbed as much as 75% of the excess heat created by humans, and 40% of carbon dioxide.
- In the 1980s, Antarctica lost an average of 40 billion tons of ice per year. By 2020, the rate of loss increased more than sixfold – up to 252 billion tons per year.
- The Antarctic Peninsula is one of the most rapidly warming places in the Southern Hemisphere, with average temperatures increasing by over 5°F (3°C) between 1970 and 2020.
- What happens in Antarctica, does not stay in Antarctica – the waters of the Southern Ocean are vital to the health of the planet, producing currents that carry essential nutrients north of the equator, and like the rest of the ocean, regulating the global climate.
- To date, only 5% of the Southern Ocean is fully protected.

## MARINE PROTECTED AREAS (MPAS) AS A SOLUTION

MPAs increase ecosystem and species resilience to the effects of climate change by reducing the impact of other environmental stressors such as fishing and pollution.

Highly protected MPAs improve biodiversity by protecting the full range of habitats and species in an ecosystem, which in turn increases resilience to climate change and other environmental stressors.

MPAs help scientists track and isolate the effects of climate change by acting as sentinel sites or natural laboratories where researchers can study the effects of a warming, more acidic ocean on ecosystems, independent of impacts from fisheries and other human activities.

A network of MPAs can help protect migratory pathways, allowing species to adapt, evolve or change their range as habitats shift.

## WHAT IS ASOC DOING?



ASOC advocates for policies that will build Antarctic ecosystem resilience in the face of climate change. We work to build awareness of the impacts of climate change on the Antarctic environment through public advocacy, reporting to Antarctic governance meetings, and conducting outreach to governments.



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