



## CLIMATE CHANGE TERMS AND FACTS

*It's real. The changes are happening. They're very visible. They're photographable. They're measurable.*  
– James Balog

- More than 90 percent of the world's glaciers are in retreat. Over the past 15 years, rising temperatures have caused glaciers to lose ice thickness at a rate two to three times greater than during the 20th century. In places like Alaska, that translates into 75 billion tons of ice lost every year.
- The stark contrast of the white ice field against Tanzania's Mt. Kilimanjaro's sand-covered peak will soon be gone. The ice is estimated to melt entirely by 2060.
- The fast-moving Khumbu Icefall, possibly the most dangerous route to the summit of Mount Everest in Nepal, flows several feet downhill every day. The rapid melting of this glacier showcases the rapid effects of climate change.
- The Grinnell Glacier has shrunk 90 percent since 1910. At current warming rates, it and all other glaciers in Montana's Glacier National Park will disappear by 2030.
- From when it was first measured in 1794 until 1980, Columbia Glacier in Alaska remained in roughly the same place. But since the 1980s it has been in rapid retreat, and today this single glacier accounts for nearly half of all ice loss in Alaska's Chugach Mountains.
- Melting ice from the Bridge Glacier in British Columbia, Canada, contributes to the loss of more than 5.8 trillion gallons of water from the region's glaciers every year.
- The Bridge Glacier has retreated more than two miles in the past 40 years, with 75-90 percent of its ice loss due to surface melt caused by warming temperatures.
- Giant holes called "moulins" form when meltwater flows into cracks in the Greenland Ice Sheet.
- Every glacier in the northern and central Andes Mountains in South America has been in retreat since the 1970s. The glaciers' high altitude allows them to form spikes called "neve penitentes."
- Aquamarine melt ponds form on the surface of the Greenland Ice Sheet, carving rivers and tunnels, weakening the ice structure.

In the exhibit, guests can learn how they can make a difference. According to University of California Berkeley's CoolClimate Network,

- If Americans biked 10 miles each week instead of driving, in one year it would save the same amount of carbon dioxide as if Illinoisans didn't use gas for 4.5 months.
- If Americans lowered the thermostat 4 degrees in the winter, it would save the same amount of carbon dioxide as if Illinoisans didn't use heat for 1.5 years.

- If everyone in the U.S. switched five lightbulbs to compact fluorescent lamps, it would save about the same amount of carbon dioxide as if no one in Tennessee used electricity for a year.
- If everyone in the U.S. maintained their cars (tire pressure and changing air filters) for a year, it would save about the same amount of carbon dioxide as if no one in the country ate any beef for six months. That's around 80,000,000 metric tons of carbon dioxide.

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