

# Amid 'dramatic' climate changes, UN launches plan to step-up polar weather and sea-ice monitoring

15 May 2017 – With relatively little data available about the Earth's Polar Regions – posing risks for people and the environment – the United Nations weather agency has kicked off of a two-year international effort to close gaps in polar forecasting capacity and to improve future environmental safety at the farthest reaches of the planet.

Polar conditions are changing dramatically, impacting weather across the globe, the World Meteorological Organization (WMO) said, launching the Year of Polar Prediction, which will aim to improve predictions of weather, climate and ice conditions in the Arctic and Antarctic.

“Because of teleconnections, the poles influence weather and climate conditions in lower latitudes where hundreds of millions of people live,” [warned](#) WMO Secretary-General Petteri Taalas.

“Warming Arctic air masses and declining sea ice are believed to affect ocean circulation and the jet stream, and are potentially linked to extreme phenomena such as cold spell, heat waves and droughts in the northern hemisphere,” he added.

Scientists, with the help of data from operational forecasting centres, will observe, model, and improve forecasts of weather and climate systems to learn more about and improve the understanding of the weather changes at the poles.

In light of [The Year of Polar Prediction](#), special observing periods will be added to improve the number of routine observations, for example by weather balloon launches, and buoy deployments from research vessels to measure atmospheric and oceanographic conditions.

## ***Climate change at the Poles***

The effects of worldwide greenhouse gas emissions, one of the leading causes of global warming, are felt more intensely in the Polar Region as than anywhere else. According to WMO, both the Arctic and Antarctica are warming twice as fast as the rest of the world causing melting of glaciers and ice shelves, shrinking sea ice and snow cover. Polar wildlife ecosystems and indigenous population are already feeling the impact of climate change.

“Arctic sea-ice maximum extent after the winter re-freezing period in March was the lowest on record because of a series of ‘heat-waves.’ Antarctic sea ice minimum extent after the most recent Southern Hemisphere summer melt was also the lowest on record,” explained Thomas Jung of the Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, and chair of the Polar Prediction Project steering committee.

“The rate and implications of polar environmental change is pushing our scientific knowledge to the limits,” he warned.

WMO further predicts that the noticeable changes in weather, climate and ice conditions at the poles are leading to increased human activities such as transportation, tourism, fisheries and natural resource exploitation and extraction.

“The expected increase in activity comes with its own share of risks to both the environment and society, including traditional indigenous livelihoods”, said Mr. Taalas. “Ice-laden polar seas are a challenge to navigate, whilst any oil spills could be catastrophic.”

“Accurate weather and sea-ice information will thus become increasingly vital in order to improve safety management in Polar Regions and beyond,” the WMO chief concluded.

### ***Improving Arctic forecasts***

Polar and high mountain activities are among WMO’s top strategic priorities because of the growing impact of climate change from greenhouse gas emissions.

The Arctic and Antarctic are currently among the world’s most poorly observed regions. Lack of data along with limitations of models, impact the quality of forecasts while insufficient information about polar weather will also affect quality of weather forecasts in other parts of the world.

WMO therefore expects that advances in Polar prediction will lead to improved weather forecasts and climate predictions both for Polar Regions as well as densely populated countries in other parts of the world.