Experts say global ice sheets melting at 'worst-case' rates

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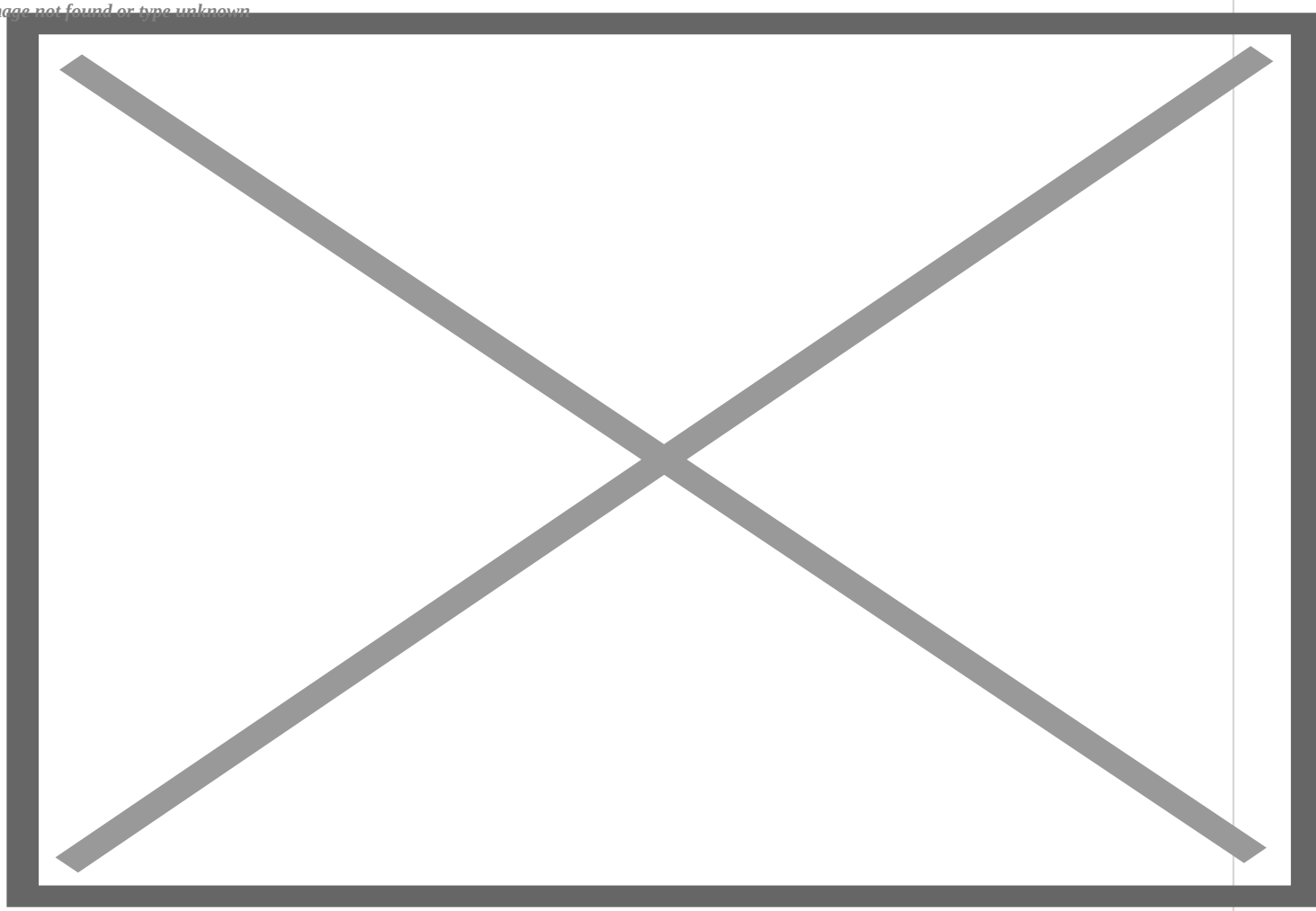

Using satellite data, the experts found the Earth lost 28 trillion tons of ice between 1994 and 2017. (Photo:Carlos Garcia Rawlins/Reuters)

London, January 28 (RHC)-- The rate at which ice is disappearing across the world matches "worst-case climate warming scenarios," UK scientists have warned in new research. A team from the universities of Edinburgh, Leeds and University College London said the rate at which ice is melting across the world's polar regions and mountains has increased markedly in the last 30 years.

Using satellite data, the experts found the Earth lost 28 trillion tonnes of ice between 1994 and 2017. The rate of loss has risen from 0.8 trillion tonnes per year in the 1990s to 1.3 trillion tonnes per year by 2017, with potentially disastrous consequences for people living in coastal areas, they said.

“The ice sheets are now following the worst-case climate warming scenarios set out by the Intergovernmental Panel on Climate Change (IPCC),” said Thomas Slater, a research fellow at Leeds University’s Centre for Polar Observation and Modelling. “Sea level rise on this scale will have very serious impacts on coastal communities this century.”

Input from the United Nations’ IPCC has been critical to forming international climate change strategies, including the 2015 Paris Agreement under which the majority of greenhouse-gas emitting nations agreed to take steps to mitigate the effect of global warming.

The universities’ research, published in the European Geosciences Union’s journal The Cryosphere, was the first of its kind to use satellite data.

It surveyed 215,000 mountain glaciers around the globe, polar ice sheets in Greenland and Antarctica, ice shelves floating around Antarctica and sea ice drifting in the Arctic and Southern Oceans. The survey found the largest losses in the last three decades were from Arctic Sea ice and Antarctic ice shelves, both of which float on the polar oceans.

While such ice loss does not directly contribute to sea rises, its destruction does stop the ice sheets reflecting solar radiation and thus indirectly contributes to rising sea levels.

“As the sea ice shrinks, more solar energy is being absorbed by the oceans and atmosphere, causing the Arctic to warm faster than anywhere else on the planet,” said Isobel Lawrence, a research fellow at the University of Leeds. “Not only is this speeding up sea ice melt, it’s also exacerbating the melting of glaciers and ice sheets which causes sea levels to rise,” she added.

An earlier study published in the Proceedings of the National Academy of Sciences journal based in the United States estimated that global sea levels could rise by two metres (6.5 feet) by the end of this century due to global warming and greenhouse emissions.

The report also said that in the worst-case scenario, global temperatures would warm by more than five degrees Celcius (nine degrees Fahrenheit), causing the water to rise, displacing millions of people living in coastal areas.

Another study, published in 2019 by the U.S.-based Climate Central said that up to 300 million people may be affected by devastating flooding by 2050, about three times more than previously estimated. The number could go up to 630 million by 2100.

The study warned that key coastal cities such as India’s Mumbai, China’s Shanghai and Thailand’s Bangkok could be submerged over the next 30 years. An estimated 237 million people threatened by rising sea waters live in Asia alone, the research said.

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