Fisheries in tropical regions hardest hit by climate change: UBC

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Major shifts in the productivity of the world's fisheries caused by climate change will most adversely affect the tropical regions of the world, according to a new study at UBC.

A team of researchers from UBC and Princeton University, working on the first major study on the effects of climate change on ocean fisheries, suggest that climate change may lead to a 30% to 70% increase in catch potential in high-latitude regions of the world and a 40% drop in the tropics. This is due to the warming of ocean waters that will either push fish populations to historically colder regions or lead to the extinction of fish populations.

A UBC fisheries professor, Daniel Pauly, warned, "While warmer waters might attract new species to colder regions, the rise in temperature might make the environment inhospitable to current species in the region that cannot move to even higher latitudes."

William Cheung, a researcher at the University of East Anglia in the UK who conducted the fisheries study at UBC said, "Many tropical island residents rely heavily on the oceans for their daily means. These new findings suggest there's a good chance this important food source will be greatly diminished due to climate change."

The study, published Thursday in the journal Global Change Biology, suggest areas around Norway, Greenland, Alaska and the east coast of Russia will likely see increased catch potential by 2055. Meanwhile, places like Indonesia, the mainland United States, Chile and China will realize the biggest loss.

Fortunately for Canada, the study suggested that the country's overall catch potential will remain approximately the same. The west coast, however, may see a 20% decline by 2055, while the east coast could see a 10% boost.

Pauly said, however, that more research needs to be done to better understand the impact shifting fish populations will have on existing ecosystems.

"Major shifts in fish populations will create a host of changes in ocean ecosystems, likely resulting in species loss and problems for the people who now catch them."



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