Climate change is not only making the planet warmer, it is also making snowstorms stronger and more frequent, US scientists said on Tuesday.

"Heavy snowstorms are not inconsistent with a warming planet," said scientist Jeff Masters, as part of a conference call with reporters and colleagues convened by the Union of Concern Scientists.

"In fact, as the Earth gets warmer and more moisture gets absorbed into the atmosphere, we are steadily loading the dice in favor of more extreme storms in all seasons, capable of causing greater impacts on society."

Masters said that the northeastern United States has been coated in heavy snowfall from major Category Three storms or larger three times in each of the past two winters, storms that are unparalleled since the winter of 1960-61.

"If the climate continues to warm, we should expect an increase in heavy snow events for a few decades, until the climate grows so warm that we pass the point where it's too warm for it to snow heavily."

Mark Serreze, director of the National Snow and Ice Data Center in Boulder, Colorado, said less sea ice in the Arctic translates to more moisture in the atmosphere, and could also cause an atmospheric circulation pattern in polar regions known as Arctic Oscillation.

"It's still cutting-edge research and there's no smoking gun, but there's evidence that with less sea ice, you put a lot of heat from the ocean into the atmosphere, and the circulation of the atmosphere responds to that," Serreze said.

"We've seen a tendency for autumns with low sea ice cover to be followed by a negative Arctic Oscillation."

Even though spring in North America is just around the corner, Masters said more snow is on the way next week in the upper Midwest, and the melting snow pack could spark record floods in Minnesota, South Dakota and North Dakota this spring.

(c) 2011 AFP