

The forecast for the end of this century seems to be getting worse. New measurements, reported by E&E [here](#), indicate that Greenland is shedding ice rapidly — and Antarctica is also shedding:

*Ice sheets in Greenland and Antarctica are shrinking three times faster than they were in the 1990s, and their contribution to global sea level rise is growing, according to a new study by many of the world's top ice experts.*

*Melting of the two massive polar ice sheets raised the world's oceans 11.1 millimeters between 1992 and 2011, or just under half an inch, accounting for about one-fifth of the total sea level rise during that period.*

Scientists already knew that sea level rise was at or above the high end of model predictions, as discussed [here](#), and the polar melting may well be the reason. One meter (more than a yard) of sea level rise is now looking like an increasing possibility.

In the meantime, predictions about temperature rise are also gloomy. Business-as-usual — meaning the continuation of current trends — could result in a 4 degree temperature increase well before the end of the century. (See [here](#)). The World Bank has issued a [report](#) warning of the dangers of a 4 degree Celsius increase. The key conclusion:

*The 4°C scenarios are devastating: the inundation of coastal cities; increasing risks for food production potentially leading to higher malnutrition rates; many dry regions becoming dryer, wet regions wetter; unprecedented heat waves in many regions, especially in the tropics; substantially exacerbated water scarcity in many regions; increased frequency of high-intensity tropical cyclones; and irreversible loss of biodiversity, including coral reef systems.*

*And most importantly, a 4°C world is so different from the current one that it comes with high uncertainty and new risks that threaten our ability to anticipate and plan for future adaptation needs.*

Like interstellar colonizers in a science fiction movie, our children may be living on a new planet, superficially like the earth we know, but with unpredictable differences and unknown dangers.