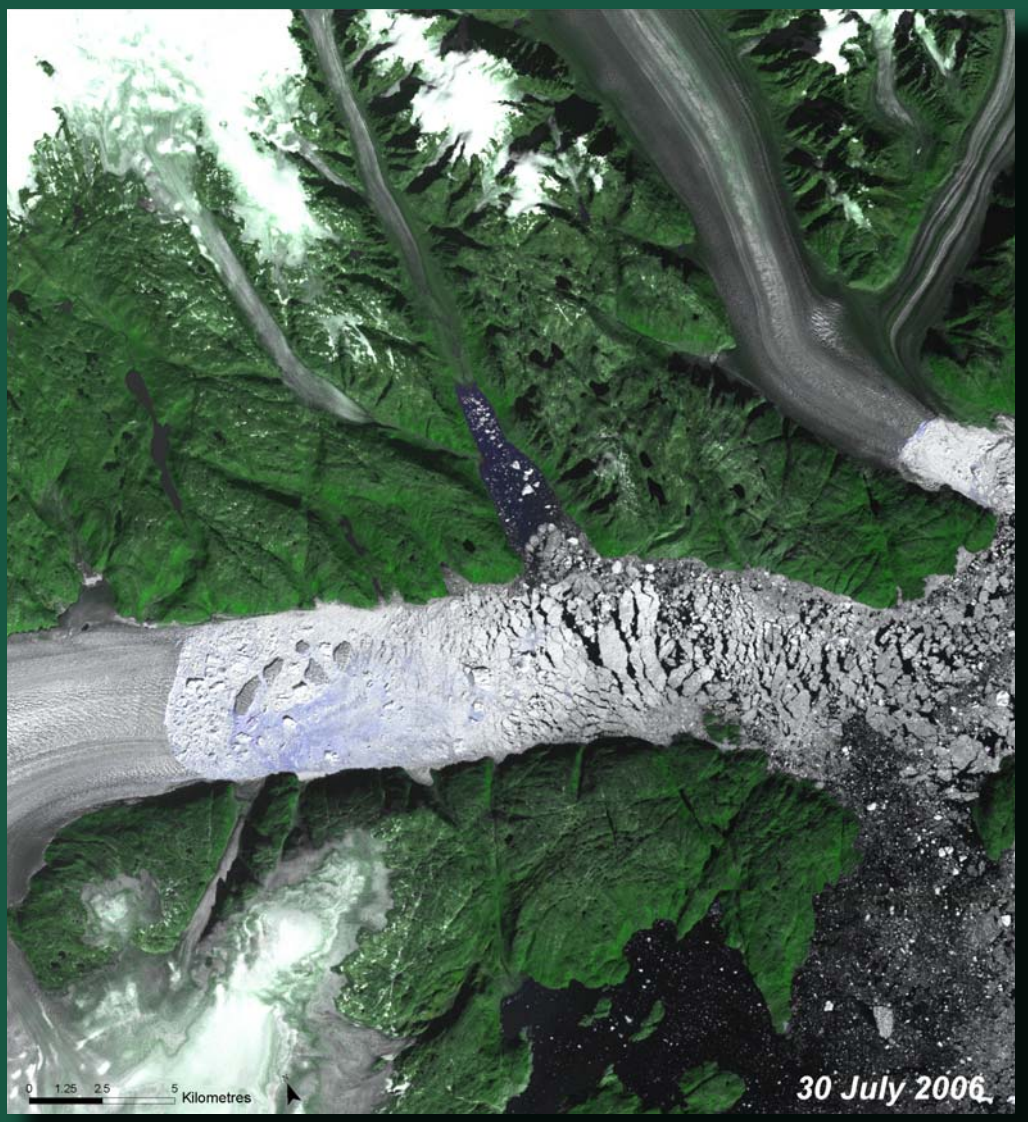

Our Changing Climate

Disappearing Greenland Glacier – Helheim

After years of moving towards the sea at a relatively stable speed, Helheim Glacier in southern Greenland has suddenly accelerated. Between 2000 and 2005 the glacier's peak rate of flow increased from 21 m (70 ft) per day to nearly 34 m (110 ft) per day. In addition, from 2001 through the summer of 2005 the calving front of the glacier has retreated by approximately 7.5 km (4.5 miles) and the thickness of the glacier has thinned by 40 m (130 ft).

A recent study indicates that the likely underlying cause of these changes is warmer air and water temperatures in southern Greenland. If this process of thinning and acceleration is occuring in other glaciers throughout Greenland, the researchers believe it could halve the time it would take for the Greenland ice sheet to disappear. If the entire Greenland ice sheet were to melt it would raise the world's sea level by approximately 6 m (20 ft).

Sources: NASA 2005; NASA 2006; Howat, I.M., U.C Santa Cruz

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