Experts fear 1m sea level rise by 2100

By Steve Connor

5:30 AM Tuesday Jan 8, 2013

Glaciologists fear they may have seriously underestimated the potential for melting ice sheets to contribute to catastrophic sea-level rises which could see increases of a metre or more by 2100.

The ice sheets of Greenland and Antarctica contain about 99.5 per cent of the Earth's glacier ice and could raise sea levels by 65m if they melted completely, although experts think this is highly unlikely in the foreseeable future.

However, a survey of the world's top 26 glaciologists found most believe the melting could be more rapid than previously estimated.

They believe that melting of the ice sheets alone this century is likely to raise the average global sea level by 29cm, but there is a 5 per cent chance of it increasing even further, by a catastrophic 84cm.

This would take the total sea-level increase to well over a metre if other factors such as the thermal expansion of oceans are taken into account.

"Our analysis shows the biggest uncertainty when it comes to sea levels is the contribution from the ice sheets," said Professor Jonathan Bamber of Bristol University, lead author of the study published in the journal Nature Climate Change.

"It shows glaciologists believe there is a one-in-20 chance of sea levels rising by a metre or more by 2100, and a metre rise in sea level is really very serious.

"The impacts of sea-level rise of this magnitude are potentially severe, implying a conceivable risk of the forced displacement of up to 187 million people within this century."

- Independent