



## OFFICE OF THE PRIME MINISTER'S SCIENCE ADVISORY COMMITTEE

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### Media Release

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#### **New Zealand's changing climate and oceans: The impact of human activity and implications for the future — a report**

A new [report](#) released today by this office is intended to update the public on current scientific understandings of climate change and ocean acidification. In particular, it focuses on how these changes are likely to affect New Zealand's climate and industries at a regional level over coming years. The report highlights the changes that have been observed within New Zealand to date, the probable impacts over the next 40 years and the importance of on-going monitoring. It identifies that the regional impacts will be quite variable and that it is important to look at seasonal patterns and the degree and frequency of extreme events rather than simply at average changes.

"We have worked closely with scientific experts from across the relevant CRIs, university departments and ministries to pull together the latest knowledge on what New Zealanders can expect as the most likely scenarios in the coming decades," said Sir Peter Gluckman.

Greenhouse gases continue to accumulate in the atmosphere and impact adversely on the global climate and on the oceans. There is a clear scientific consensus that this change is predominantly the result of anthropogenic greenhouse gas emissions including CO<sub>2</sub> and methane. Any short-term departures from the long-term warming trend can be explained through a combination of natural variability through factors such as solar cycles and the inherent lags and buffers within the planetary climate and thermal systems.

The report notes that, for New Zealand, the impact of predicted changes in wind patterns, precipitation, and ocean chemistry can be expected to have significant impacts on the environment and thus many primary industries. However, these changes generally are not expected to be uniform across New Zealand. There are likely to be pronounced differences between the North and South Islands and the East and West Coasts. There are also likely to be unequal and important effects on seasonal rainfall patterns as well as more extreme weather and tidal events. These extreme events can be expected to have more impact than changes in the mean temperature, precipitation or sea level alone.

Climate science is complex and, by its very nature, contains some inherent and unresolvable uncertainty. This uncertainty should not in itself be used as a reason to postpone concerted action. However, suggesting specific adaptive strategies is beyond the scope of this report. Sir Peter notes, "Science can provide analysis of current and future risks relating to climate change and can indicate the issues that local and national governments need to consider; however responses involve judgments based on a broader range of factors and cannot be based on science alone."

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