Climate and weather impacts on tourism in New Zealand

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Climate changes:

North: Increased tropical cyclone activity with flooding and strong winds

East: Reduced precipitation and increased risk of drought

West: Increased westerly winds and increased precipitation (frequency and intensity)

Alpine: Elevated snowline, reduced snow and ice cover

All over NZ: Warmer temperatures, reduced risk of frost, increasing number of hot days

All around NZ: Sea level rise of at least 18-59 cm between 1990 and 2100, but substantially greater increases cannot be ruled out.

Project details:

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Context:

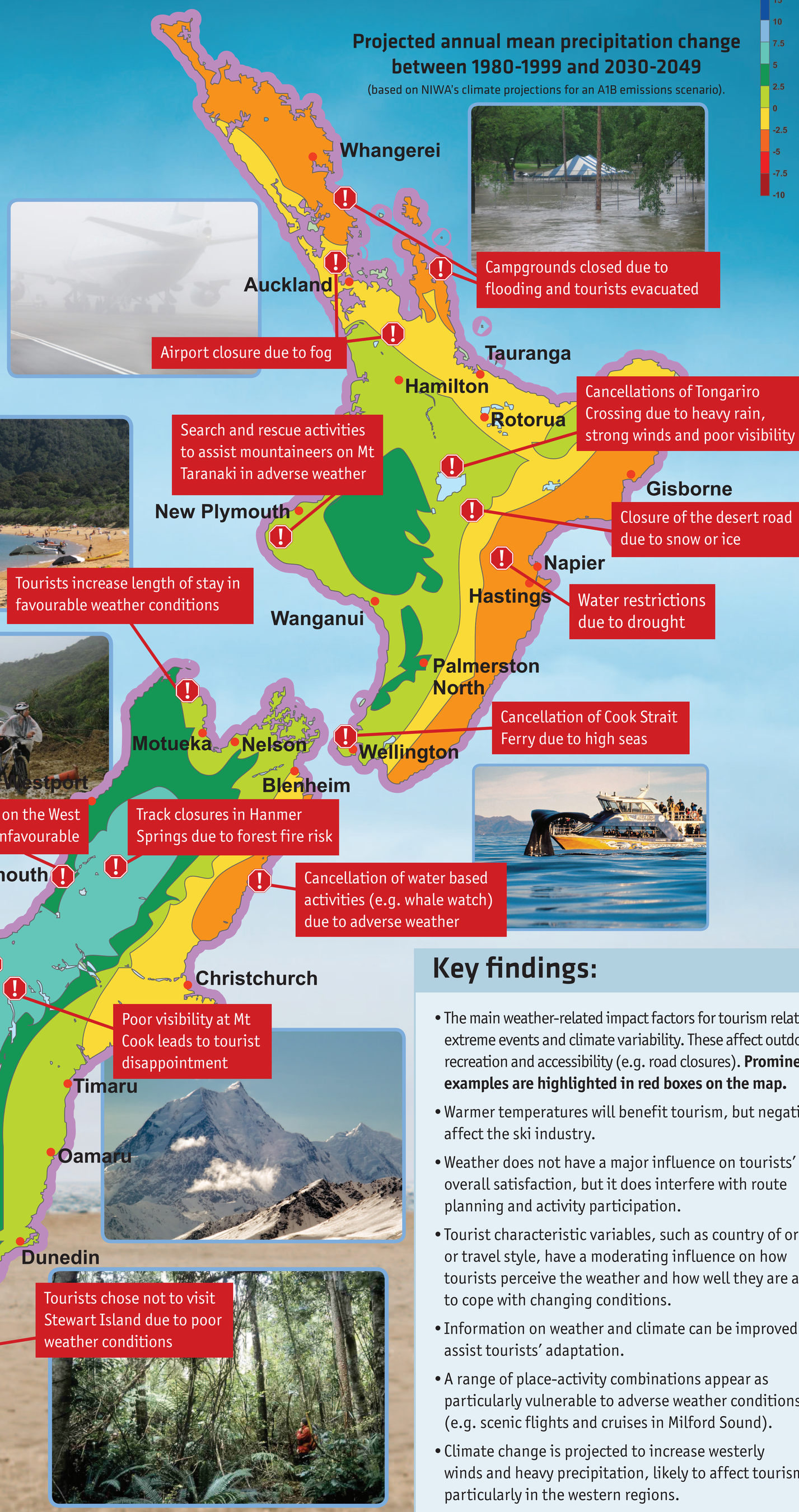
Climate and its manifestation as weather are important facilitators for tourism, and changes in climatic conditions are therefore important for its ongoing viability. Projected changes of climate relevant for New Zealand tourism include a drier east and wetter west, increased westerly winds, increases in number and frequency of extreme events (especially tropical cyclones in the North), and sea level rise. This poster summarises how weather and climate have historically interacted with tourism in New Zealand, which can provide indicators for the potential vulnerability of tourism to future climate change.

Methods:

Four data sources have been used for the poster: i) NIWA's climate projections for NZ; ii) the International Visitor Survey (IVS, N= 5,292), iii) an archive analysis of tourism-relevant weather events (last 10 years), and iv) a climate/weather tourist survey (N=436) undertaken in the summer season of 2009/10.

Projected annual mean precipitation change between 1980-1999 and 2030-2049

(based on NIWA's climate projections for an A1B emissions scenario).



Key findings:

- The main weather-related impact factors for tourism relate to extreme events and climate variability. These affect outdoor recreation and accessibility (e.g. road closures). **Prominent examples are highlighted in red boxes on the map.**
- Warmer temperatures will benefit tourism, but negatively affect the ski industry.
- Weather does not have a major influence on tourists' overall satisfaction, but it does interfere with route planning and activity participation.
- Tourist characteristic variables, such as country of origin or travel style, have a moderating influence on how tourists perceive the weather and how well they are able to cope with changing conditions.
- Information on weather and climate can be improved to assist tourists' adaptation.
- A range of place-activity combinations appear as particularly vulnerable to adverse weather conditions (e.g. scenic flights and cruises in Milford Sound).
- Climate change is projected to increase westerly winds and heavy precipitation, likely to affect tourism particularly in the western regions.

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