

# The Implications of Peak Oil for Travel and Tourism

Susanne Becken

4<sup>th</sup> International Responsible Tourism Conference, Oman



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



New Zealand's specialist land-based university

# Tourism as an opportunity

Tourism contributes to

- Gross Domestic Product
- Foreign exchange earning
- Regional development and diversification
- Opportunities for marginal groups
- Job creation
- Nature conservation
- Cultural exchange
- Etcetera...



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



Te Whare Wānanga o Aorangi

CHRISTCHURCH • NEW ZEALAND

New Zealand's specialist land-based university

# Future constraints of tourism

- Global economic situation
- Social trends
- Climate change and “carbon footprinting”
- Availability of **cheap oil**.



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



CHRISTCHURCH • NEW ZEALAND  
New Zealand's specialist land-based university

# Importance of oil for tourism



- Tourism inherently depends on oil: e.g. a tourist uses between 1 and 24 barrels per holiday\*  
\* Estimated based on carbon footprints calculated in the UNWTO (2008) Davos report.
- Much of the oil is for transportation – there are no substitutes readily available
- Oil is also an essential input factor into other economic activities – these determine wealth and travel propensity
- Oil prices have been fluctuating substantially



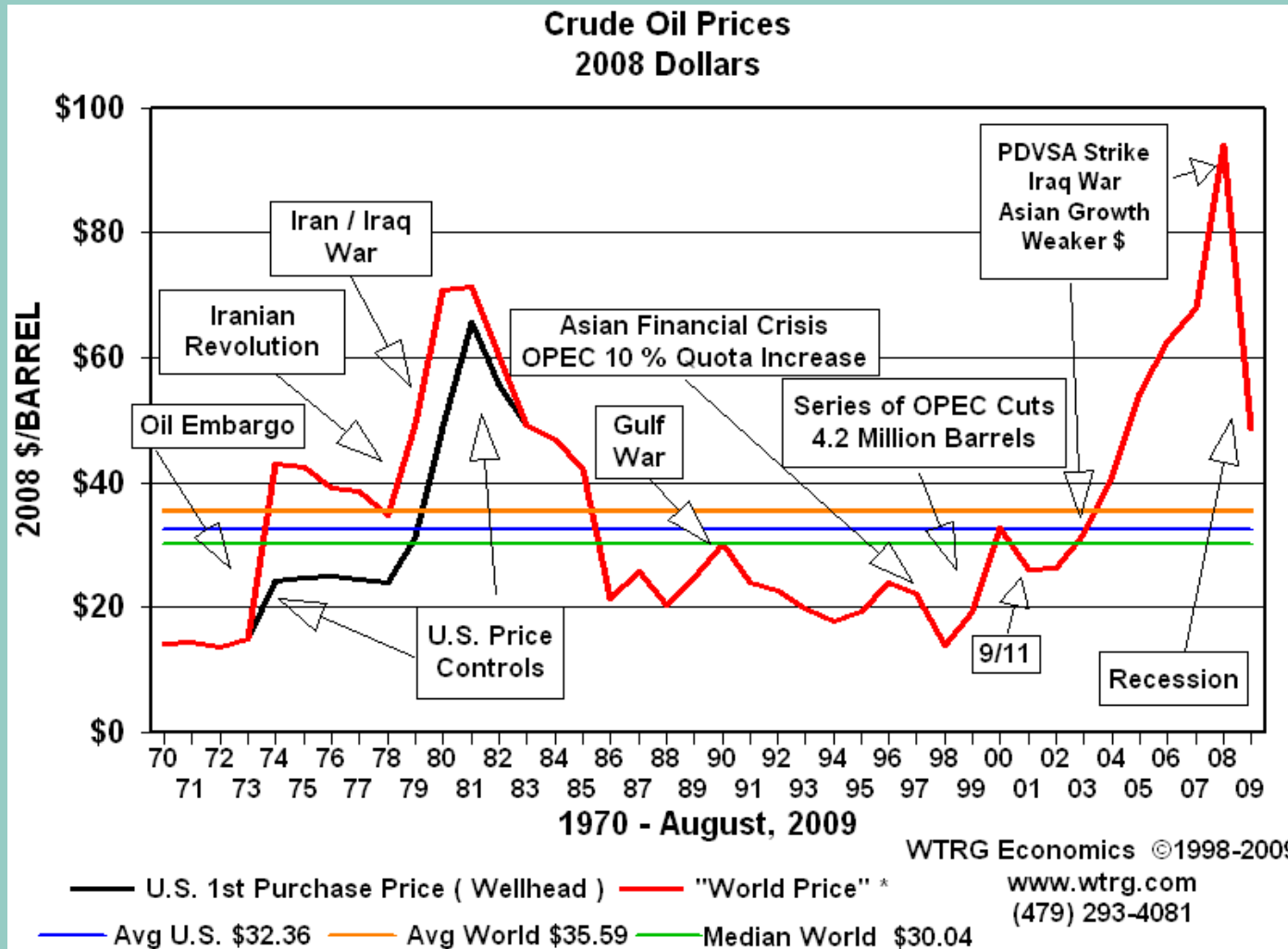
Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



CHRISTCHURCH • NEW ZEALAND  
New Zealand's specialist land-based university

# Oil prices - volatility



Source:  
<http://www.wtrg.com/prices.htm>



**Centre for Land  
 Environment  
 & People**

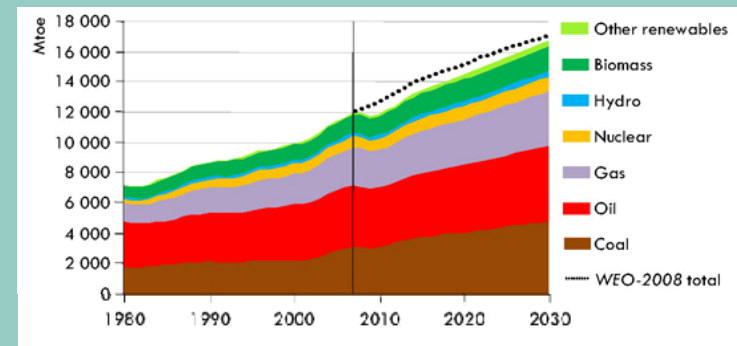
A Lincoln University Research Centre.  
 New Zealand's specialist land-based university.



Te Whare Wānanga o Aorangi  
 CHRISTCHURCH • NEW ZEALAND  
 New Zealand's specialist land-based university

# The future price of oil

- Determined by supply, demand and speculation
- The International Energy Agency expects an increase in demand of 24% between 2008 and 2030
- Once conventional oil production peaks it will decline at a rate of about 5% p.a.
- Potential of 'non-conventional' oil resources and biofuels



Source: World Energy Outlook, IEA (2010)



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.

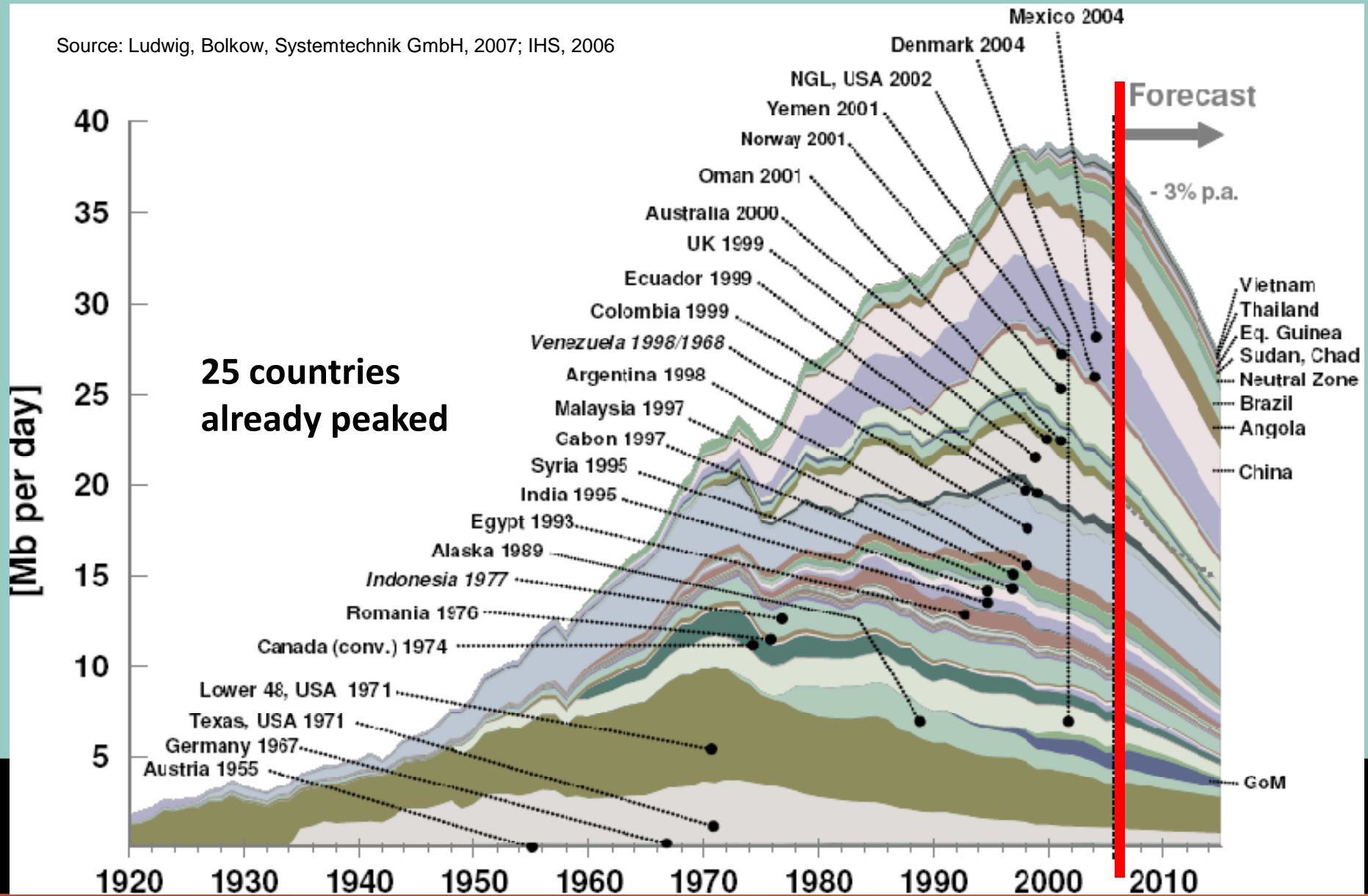


Te Whare Wānanga o Aorangi  
CHRISTCHURCH • NEW ZEALAND

New Zealand's specialist land-based university

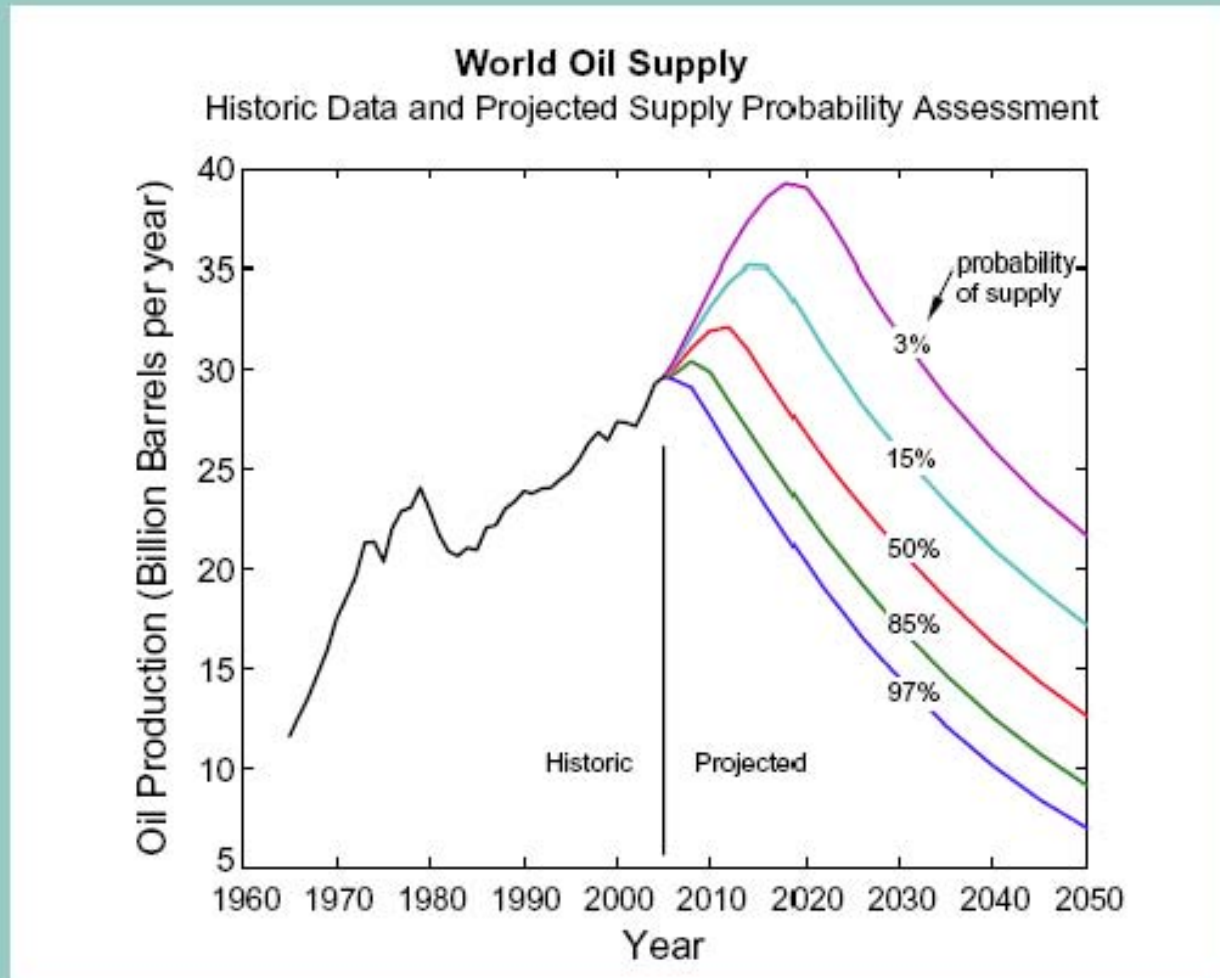
# World Peak in Oil Production 2005 – 08

Source: Ludwig, Bolkow, Systemtechnik GmbH, 2007; IHS, 2006





# A probabilistic approach



Centre for Land  
Environment  
& People

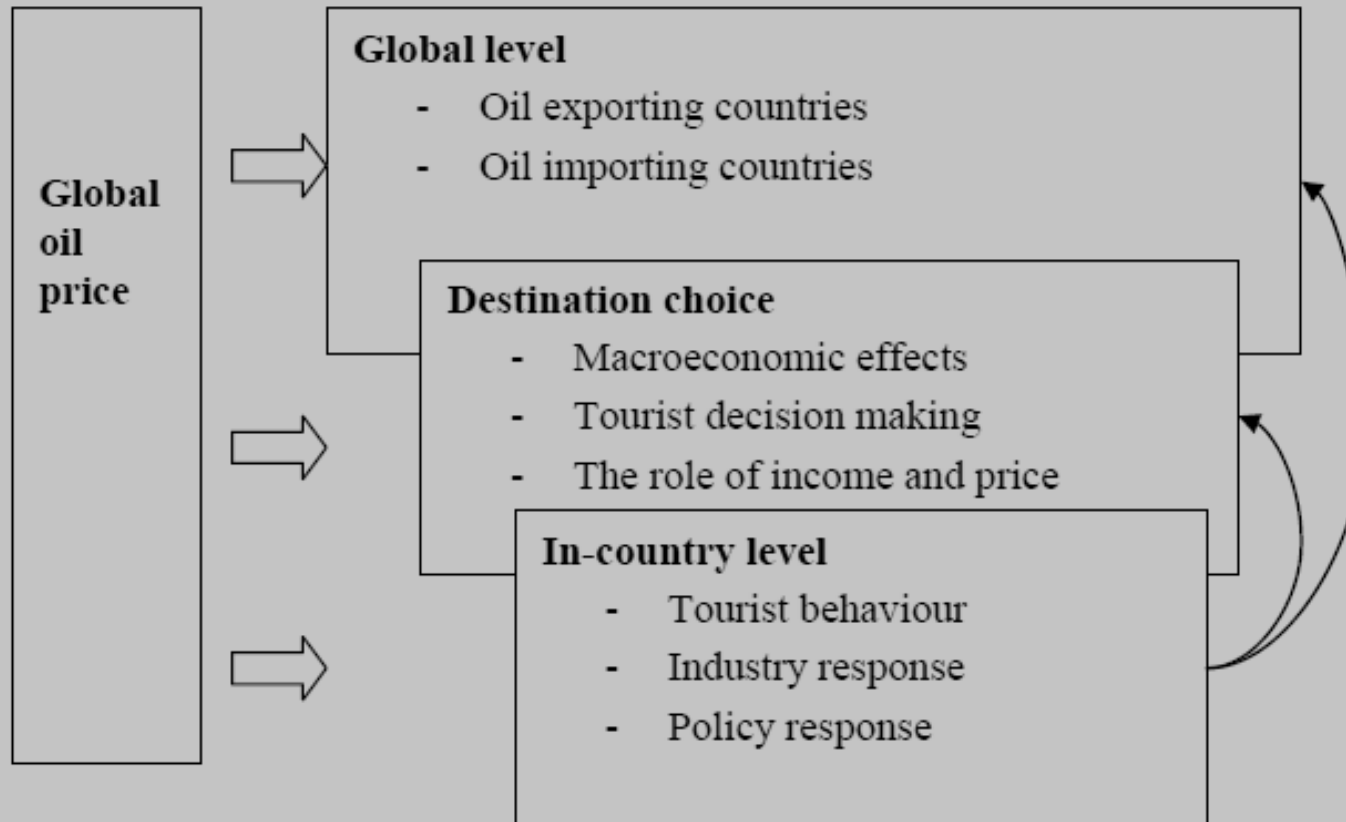
A Lincoln University Centre  
Research, Education and Innovation



Lincoln University  
1530 Lincoln University Road  
Lincoln, New Zealand



# Implications for tourism



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



Lincoln  
University  
*Te Whare Wānanga o Aorangi*  
CHRISTCHURCH • NEW ZEALAND

New Zealand's specialist land-based university

# Example: New Zealand

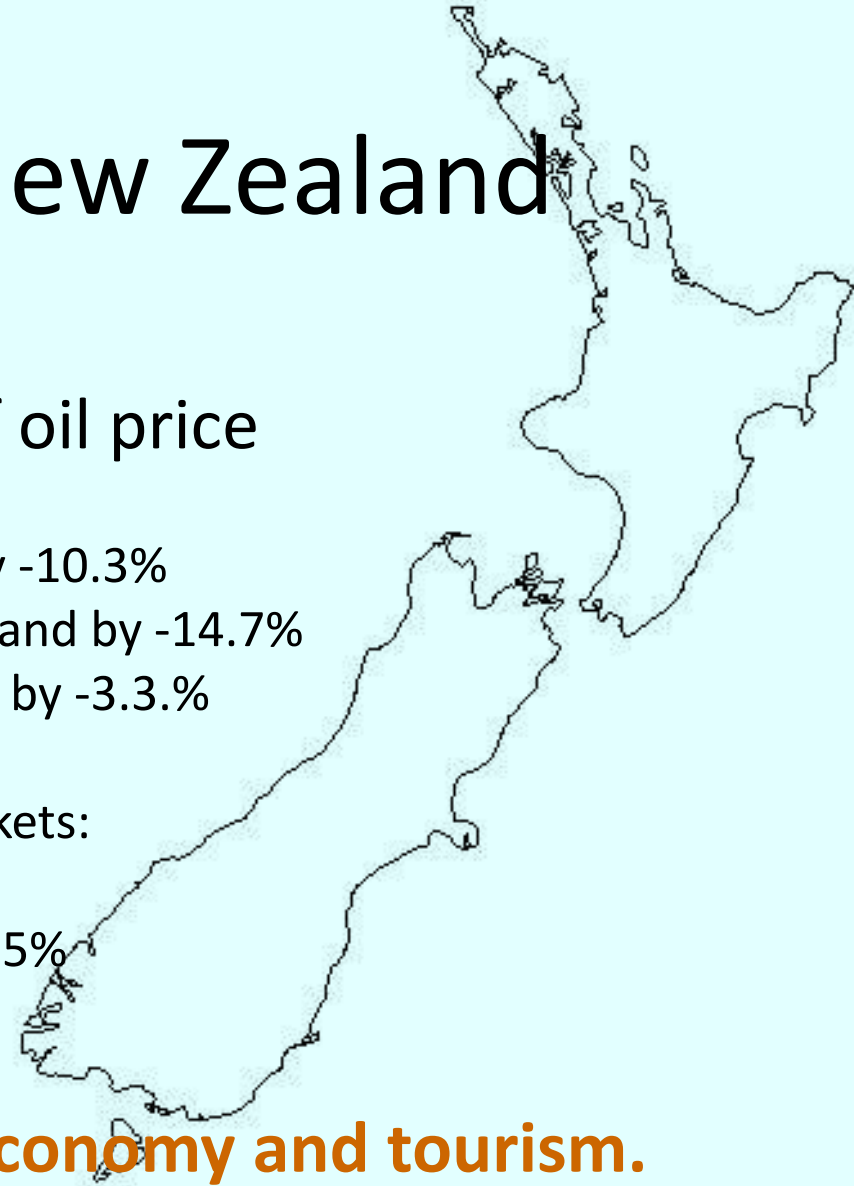
## Scenario of a doubling of oil price

- ⇒ Reduction in GDP by -2.3%
- ⇒ Reduction in Tourism exports by -10.3%
- ⇒ Reduction in rental vehicle demand by -14.7%
- ⇒ Reduction in domestic air travel by -3.3.%

## Different impacts on different markets:

- ⇒ British holiday tourists: - 22%
- ⇒ Chinese tour group visitors: -17.5%
- ⇒ Australian VFR: -11.2%

**Major implications for economy and tourism.**



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



CHRISTCHURCH • NEW ZEALAND  
New Zealand's specialist land-based university

# Vulnerability of products and businesses



- Vulnerability influenced by 1) Exposure, 2) Substitution options, 3) Market mix, 4) Diversification, 5) Geography, 6) Competition
- Energy makes up in the order of 5-10% of operating revenue (depending on business)
- Avg savings potential in accommodation: 20%
- Online *Vulnerability Assessment Tool* for NZ businesses



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



CHRISTCHURCH • NEW ZEALAND  
New Zealand's specialist land-based university

# Opportunities for Responsible Tourism

- Continue to increase resource efficiency
- Invest in new energy sources, eg. solar and wind
- Increase local participation in tourism projects (e.g. Production of local food)
- Consider new trends/products such as slow tourism



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



CHRISTCHURCH • NEW ZEALAND

New Zealand's specialist land-based university

# Risk assessment

- Taking a long-term perspective to tourism development and strategy
- Assess the potential of tourism versus other economic sectors
- Identify key risks and opportunities
- Devise marketing strategies accordingly



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



CHRISTCHURCH • NEW ZEALAND  
New Zealand's specialist land-based university

# Conclusions

- Tourism will not cease to exist in the face of peak oil
- It is likely that there will be considerable restructuring and re-orientation
- It is timely to identify opportunities and niches for tourism markets and products that will continue to exist under the assumption of high oil prices



Centre for Land  
Environment  
& People

A Lincoln University Research Centre.  
New Zealand's specialist land-based university.



CHRISTCHURCH • NEW ZEALAND

New Zealand's specialist land-based university

Contact: [susanne.becken@lincoln.ac.nz](mailto:susanne.becken@lincoln.ac.nz)

