

Can New Zealand be an Eco Paradise?

Resource Competition, Climate Change, New Zealand and Tourism

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Introduction

- Economics, Resource Competition & Balance
- Scenario:
 - **New Zealand – Eco Paradise**
 - **Circumstances**
 - **Economics**
 - **Decisions**

A time for pessimism?



Not necessarily!

Per capita global
growth in 2012:

1.2%

Global growth in
2012:

2.3%

37%

live in China
or India

85%

live outside
advanced
markets

- ▶ Even in a time of crisis, affluence is rising in most regions
- ▶ In 2013 the world economy will be 11% larger than in 2007 and the average citizen 4% richer
- ▶ And year-on-year this has profound implications for markets, lifestyles, aspirations...

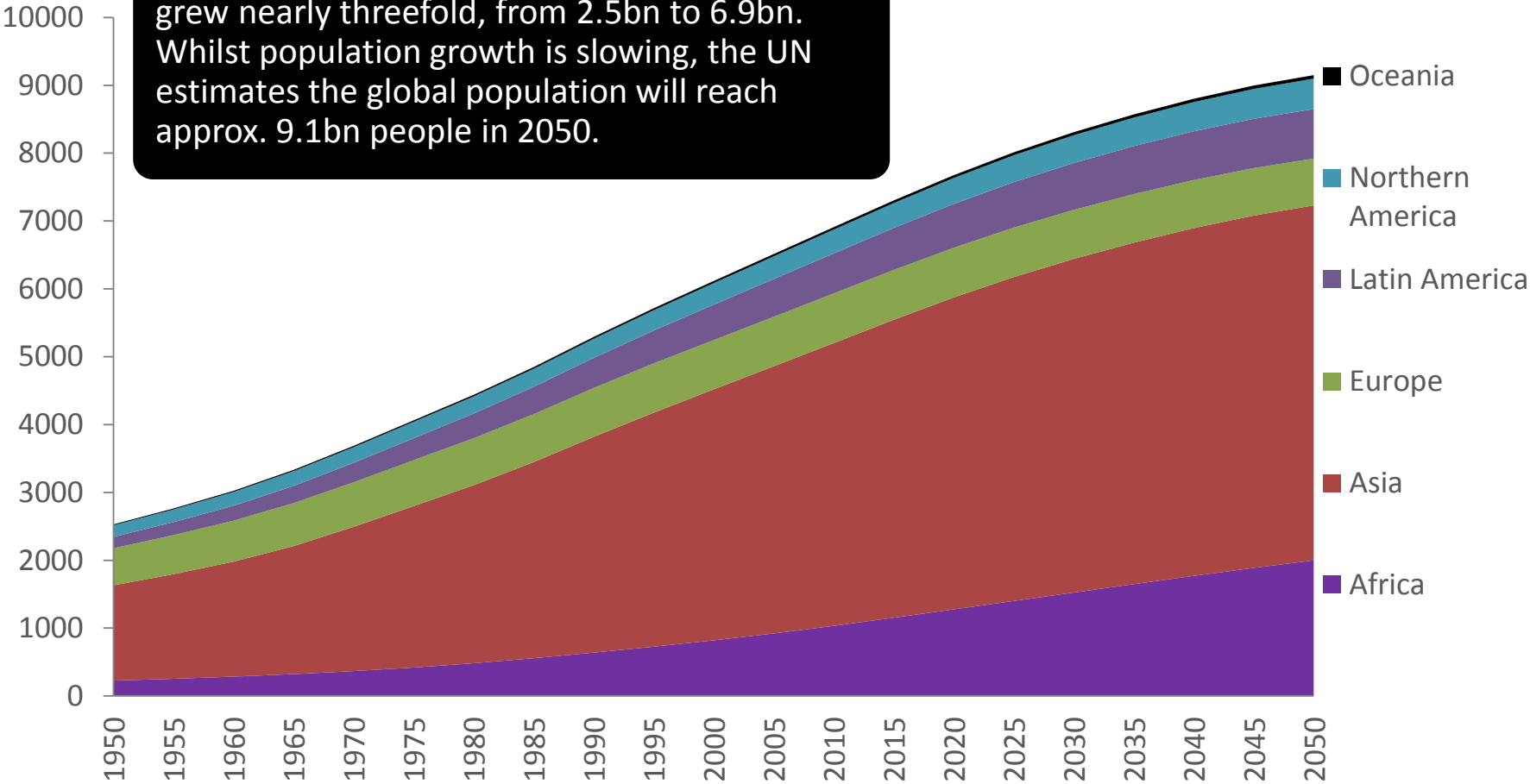
Resource Competition and Climate Change



Perhaps one of the most important (and as yet, largely unanswered) questions of the 21st century is **how, against the omnipresent threat of climate catastrophe, we will provide sustainable forms of energy, food and other resources to meet the demands of a growing global population that, by 2050, is expected to consume nearly double the amount of renewable and non-renewable resources it did in 2010.**

More mouths to feed and homes to heat : population (in millions) by region, 1950-2050

Between 1950-2010, the global population grew nearly threefold, from 2.5bn to 6.9bn. Whilst population growth is slowing, the UN estimates the global population will reach approx. 9.1bn people in 2050.

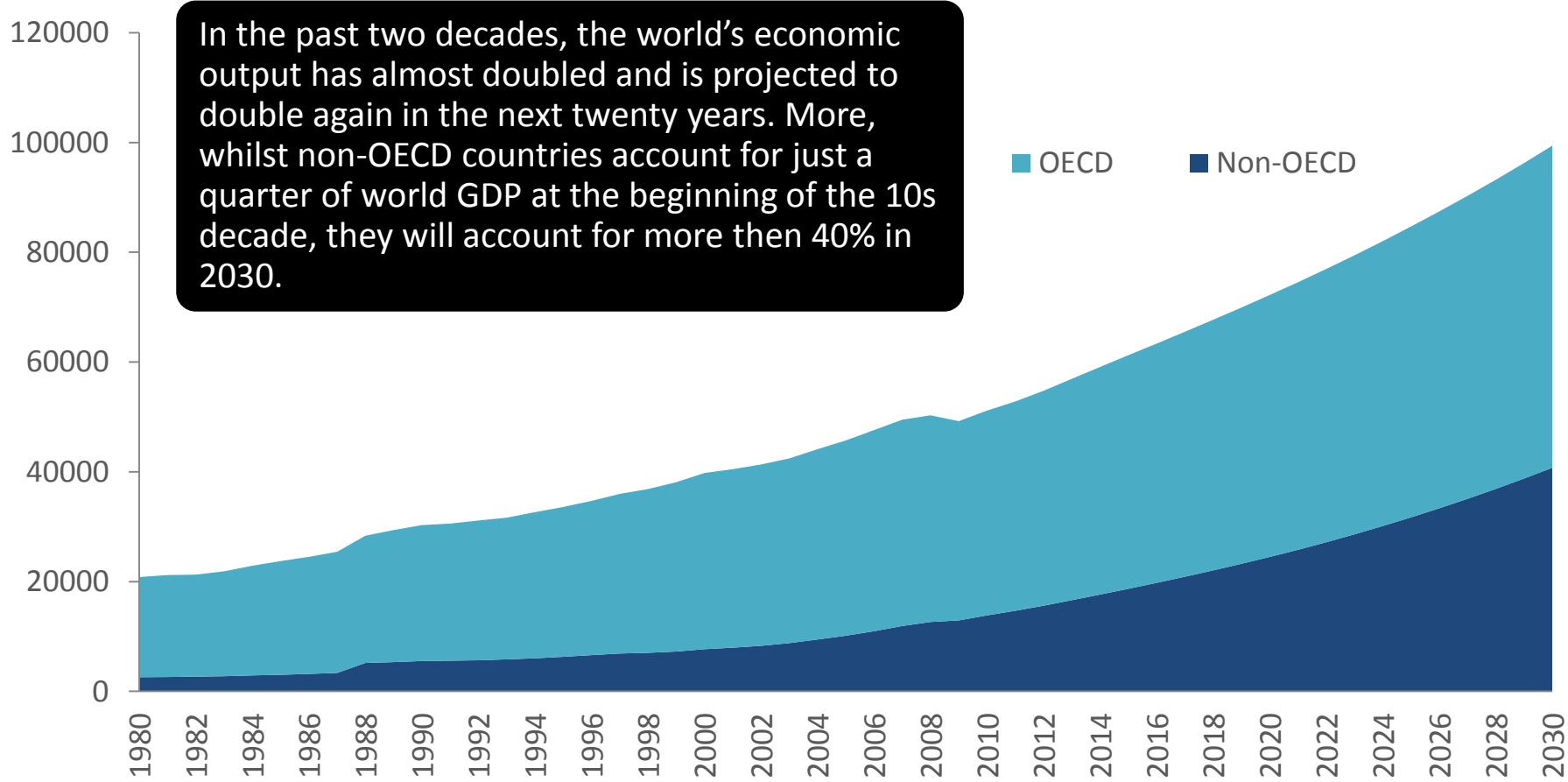


Source: United Nations World Population Prospects (The 2008 Revision)

Growing global affluence : world economic output to nearly double between 2011 and 2030

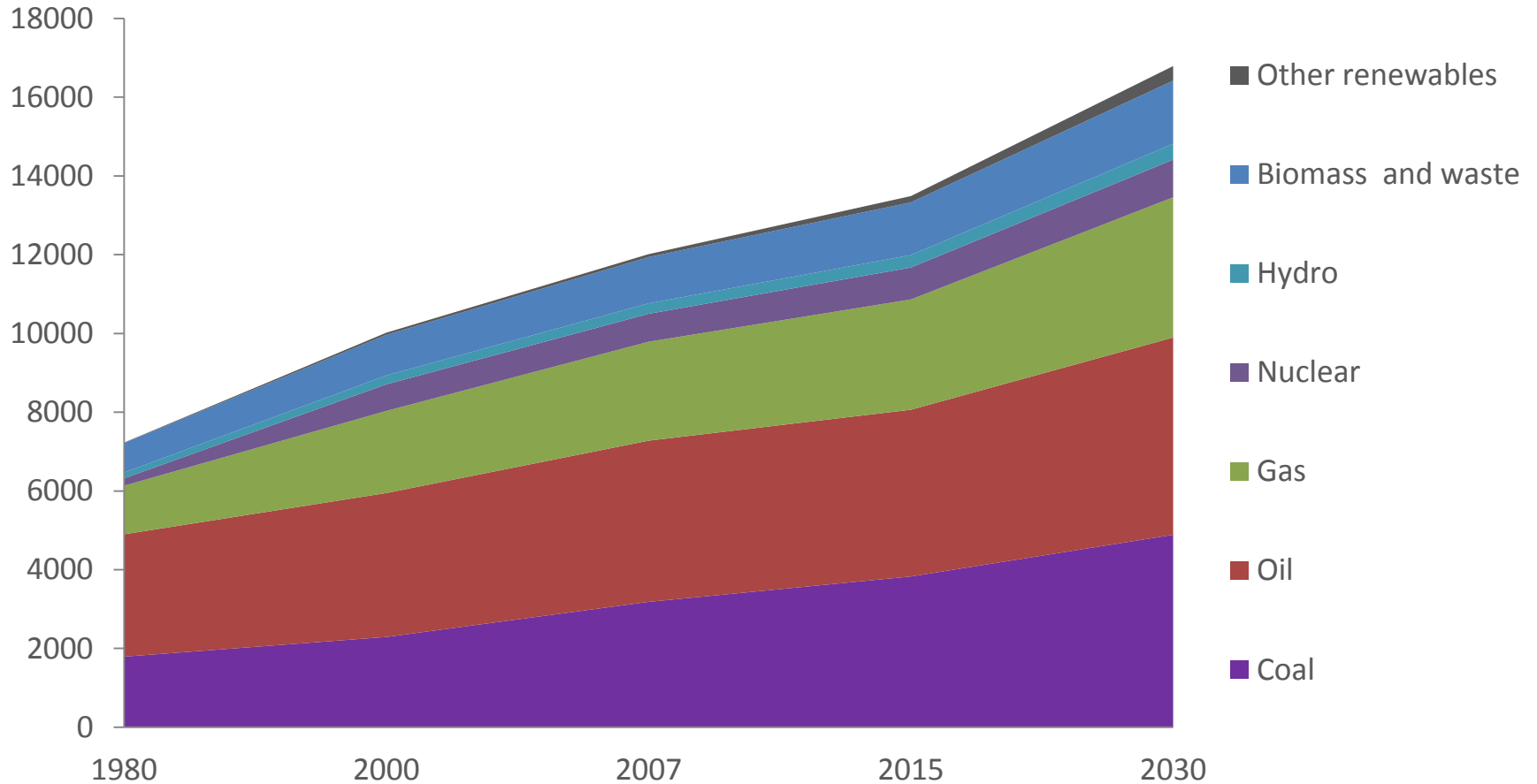
World Real GDP, in billions \$US

In the past two decades, the world's economic output has almost doubled and is projected to double again in the next twenty years. More, whilst non-OECD countries account for just a quarter of world GDP at the beginning of the 10s decade, they will account for more then 40% in 2030.



Growing energy demand

In million tonnes of oil equivalent



Growing energy demand

- The **demand for energy to increase significantly within the rapidly emerging economies** of India, China and elsewhere as infrastructure is expanded, energy-hungry industries continue to grow and as emerging middle classes become heavier users of energy (through increased transport demands, in-home energy consumption, air travel etc).
- According to the International Energy Agency (IEA), **energy demand between 2007 and 2030 is projected to grow, on average, by 1.5% a year** on a global basis. The **bulk of this growth will take place in non-OECD countries**, where demand is forecast to grow by 2.3% (and by 3.4% and 2.9% in India and China respectively), compared to OECD countries growing at 0.2%.
- **Fossil fuels are expected to account for 77% of this increase by 2030 and their proportion of total energy demand is projected to decrease only slightly from 81.4% in 2007 to 80.1% in 2030.** It is likely that the vast majority of the increase in oil demand will come from non-OECD countries; indeed, Asia is projected to overtake North America as the world's largest oil consumer.

Diets in transition and pressures on future supplies

- The Food and Agriculture Organization of the United Nations (FAO) forecasts that **global food consumption will nearly double between 2010-2050**. A key driver behind food demand is the fact that millions of peoples' diets across the developing world are changing. As their incomes improve, wealthier cohorts in Asia, Latin America and Africa are adopting new diets - richer in salt, sugar and fat - that increasingly **resemble diets enjoyed by consumers in more advanced economies**.
- The consumption of meat in particular is growing fast in developing markets (itself one of the most energy-hungry food types) and **per capita meat consumption in East Asia is projected to double by 2050**. As the trend towards energy-dense diets and sedentary lifestyles continues, a **global convergence of diet-related health issues in the coming decades** will increase as levels of obesity and diabetes rise across the globe.
- Whilst **undernourishment levels in non-OECD developing countries are projected to fall from 16% in 2005 to 5% in 2050**, concerns remain about our ability to feed a **growing world population in future given:**

Diets in transition and pressures on future supplies

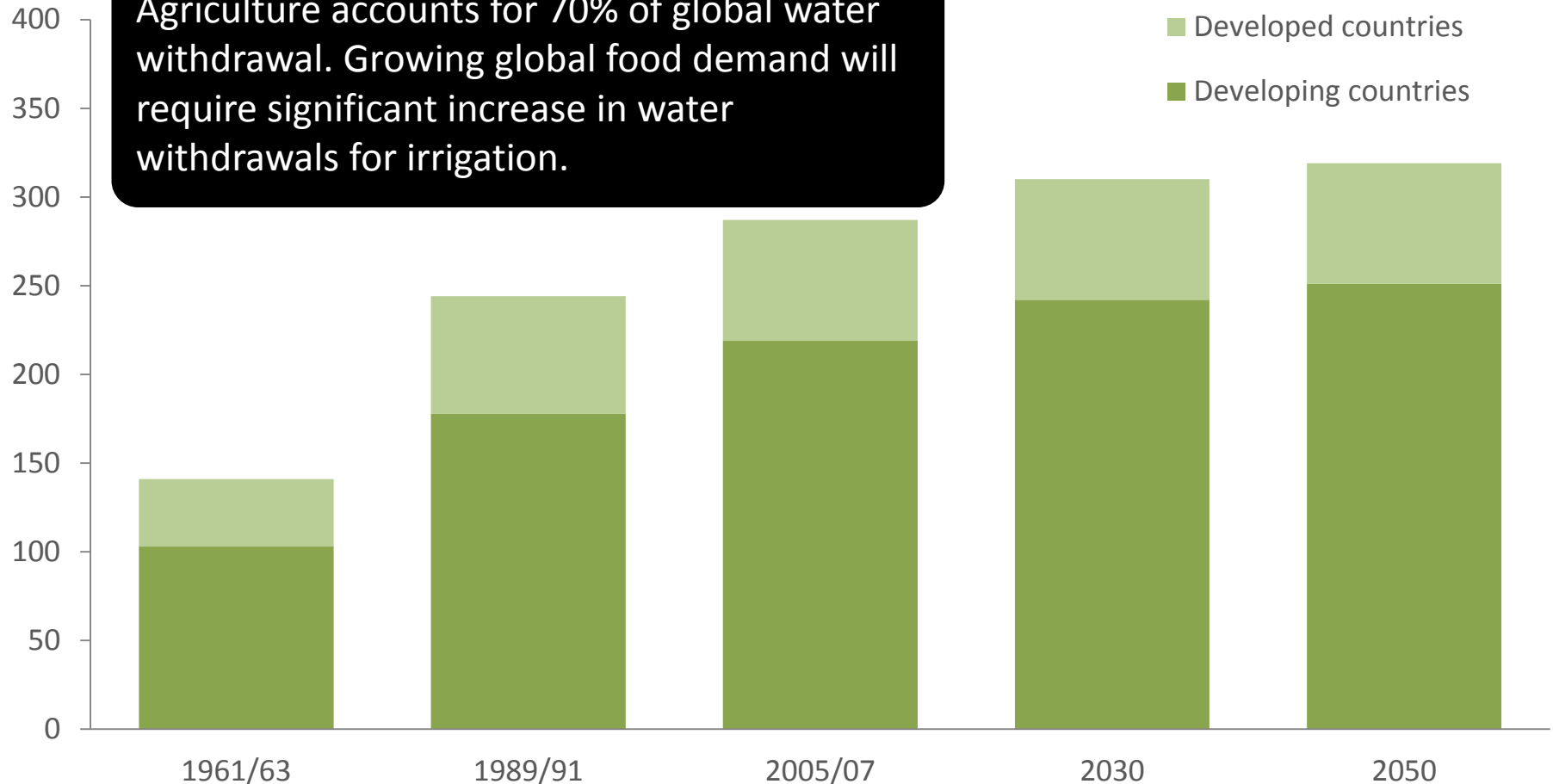
- The vulnerability of food resources to Climate Change and the extreme weather events it can cause,
- Growing constraints on resources such as land, water and energy, which are crucial to food production
- The growing output of biofuels (in the US, 40% of the corn crop was earmarked for biofuels in 2010) and
- The seemingly entrenched opposition in some parts of the world to agricultural innovation that could potentially alleviate some of the pressure on global food supplies.

Total land area equipped for irrigation

In million hectares

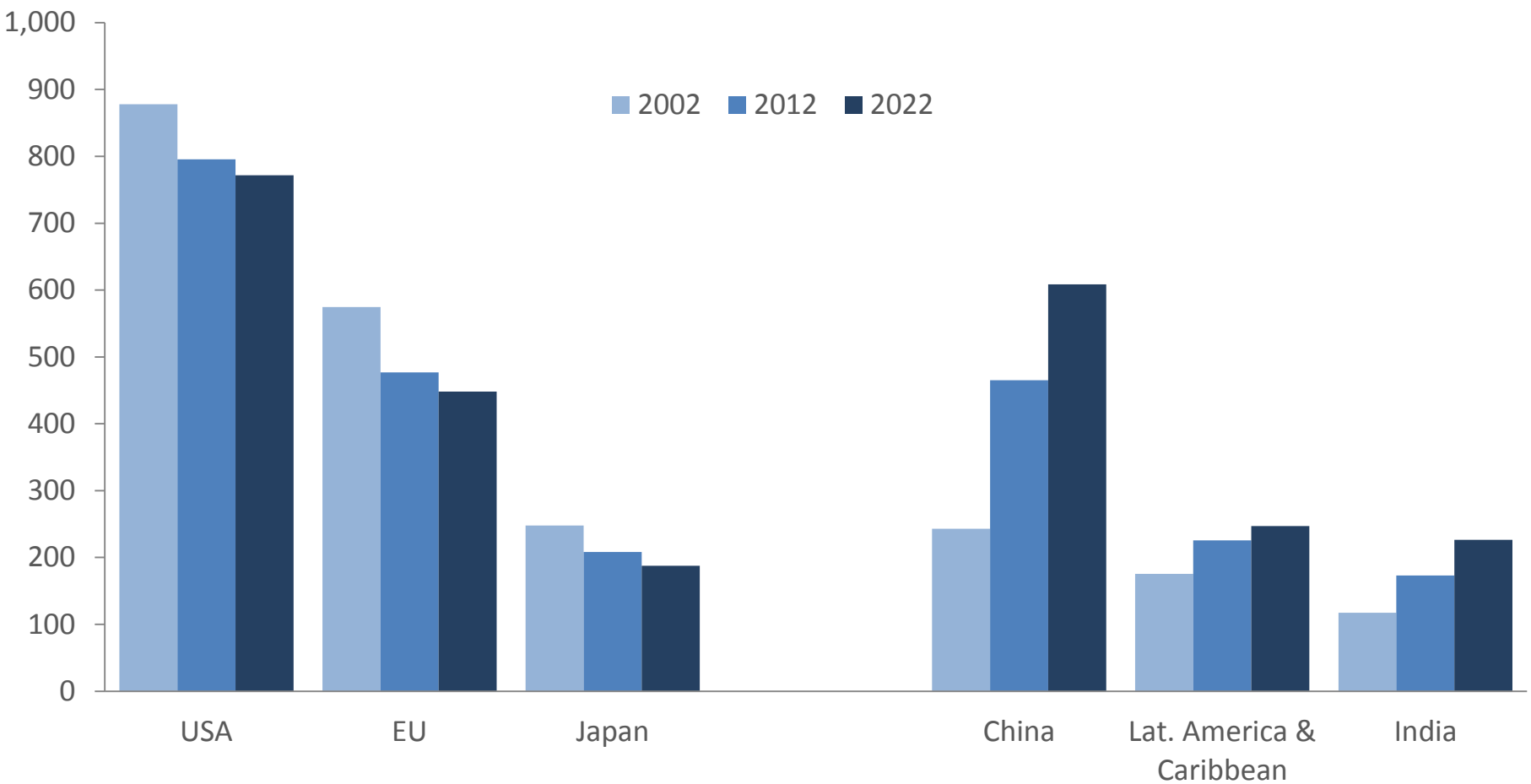
Agriculture accounts for 70% of global water withdrawal. Growing global food demand will require significant increase in water withdrawals for irrigation.

■ Developed countries
■ Developing countries



The competition for resources

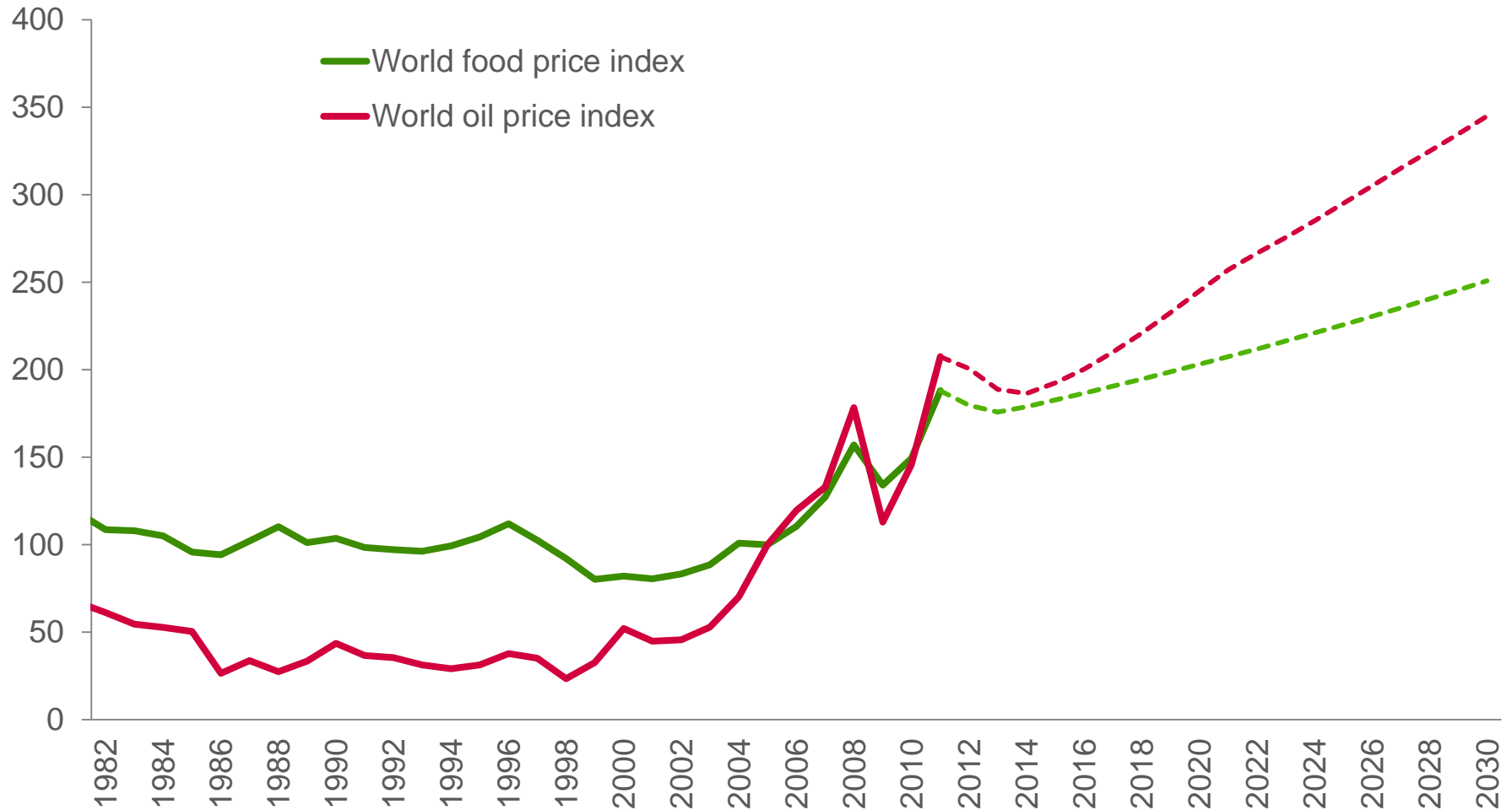
Demand for oil (million tonnes equivalent)



Source: Oxford Economics/nVision 2012

World food and oil price indices to 2030

Annual food and oil price indices (2005=100)

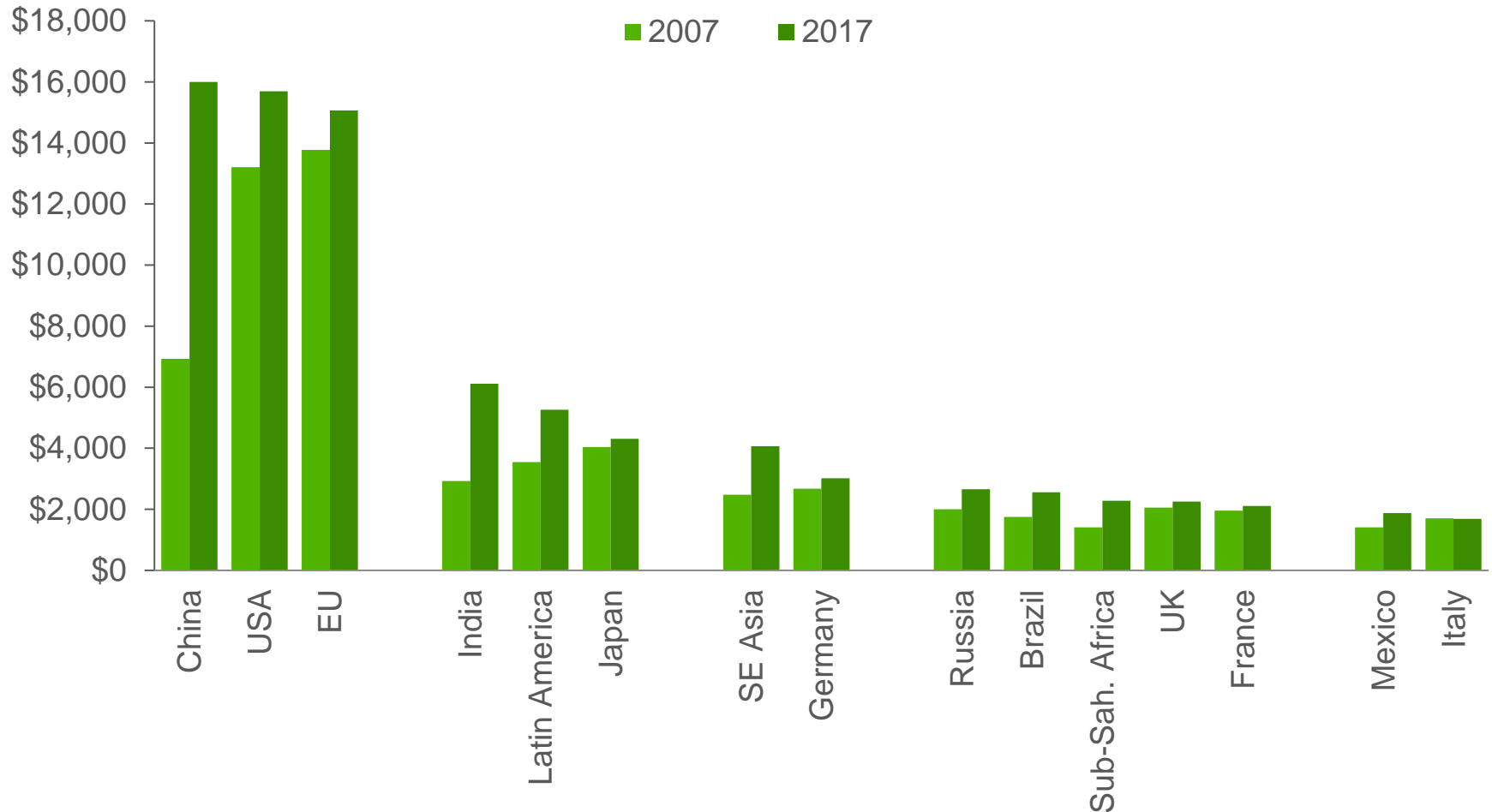


A world of imbalances



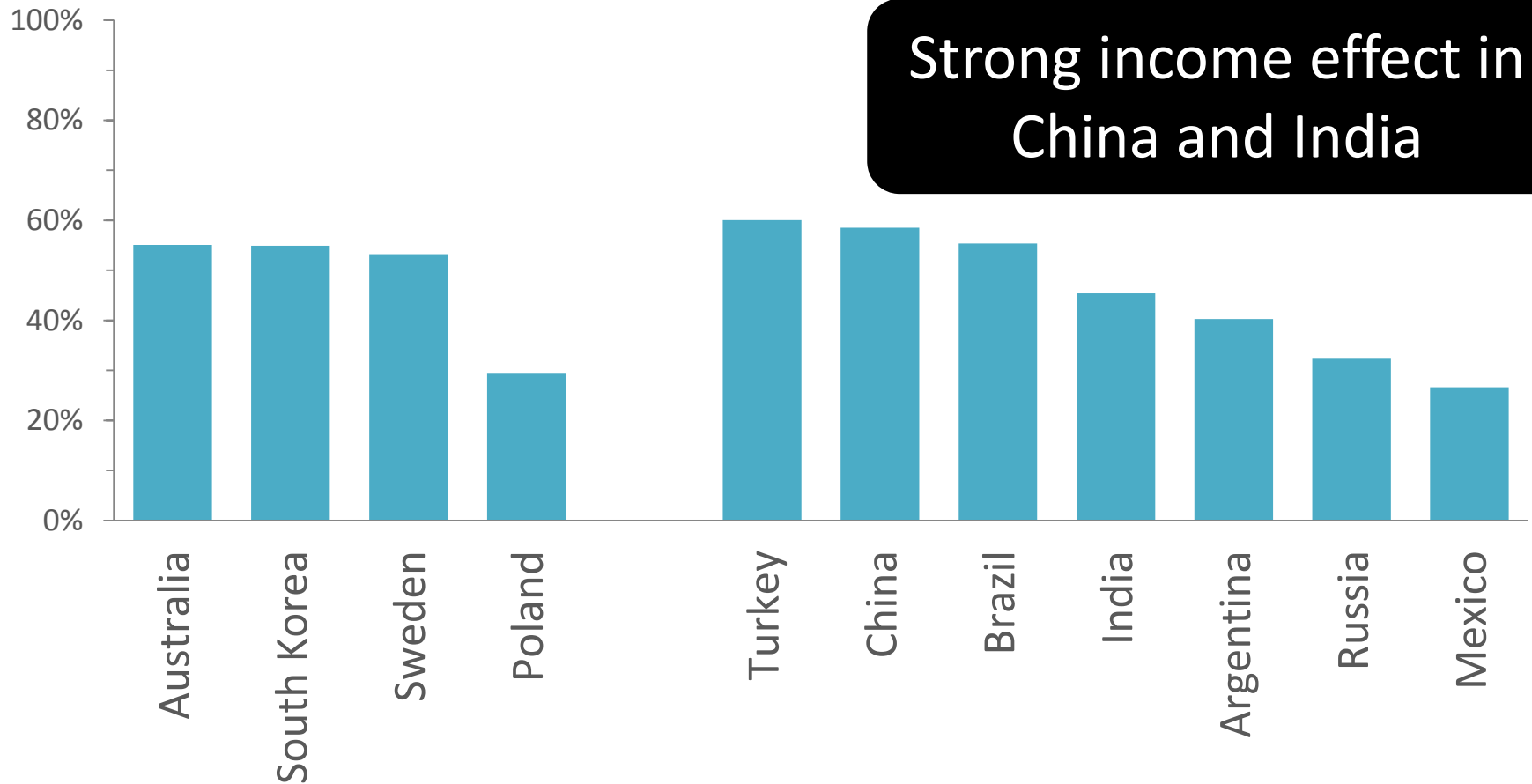
The rebalancing of global power

Real GDP, Purchasing Power Parity, US\$ (billions) 2005 prices



The Leisure Upgrade

“Which of the following would you buy more of, either for yourself or your family, if you were wealthier than you are today? **New leisure experiences**”



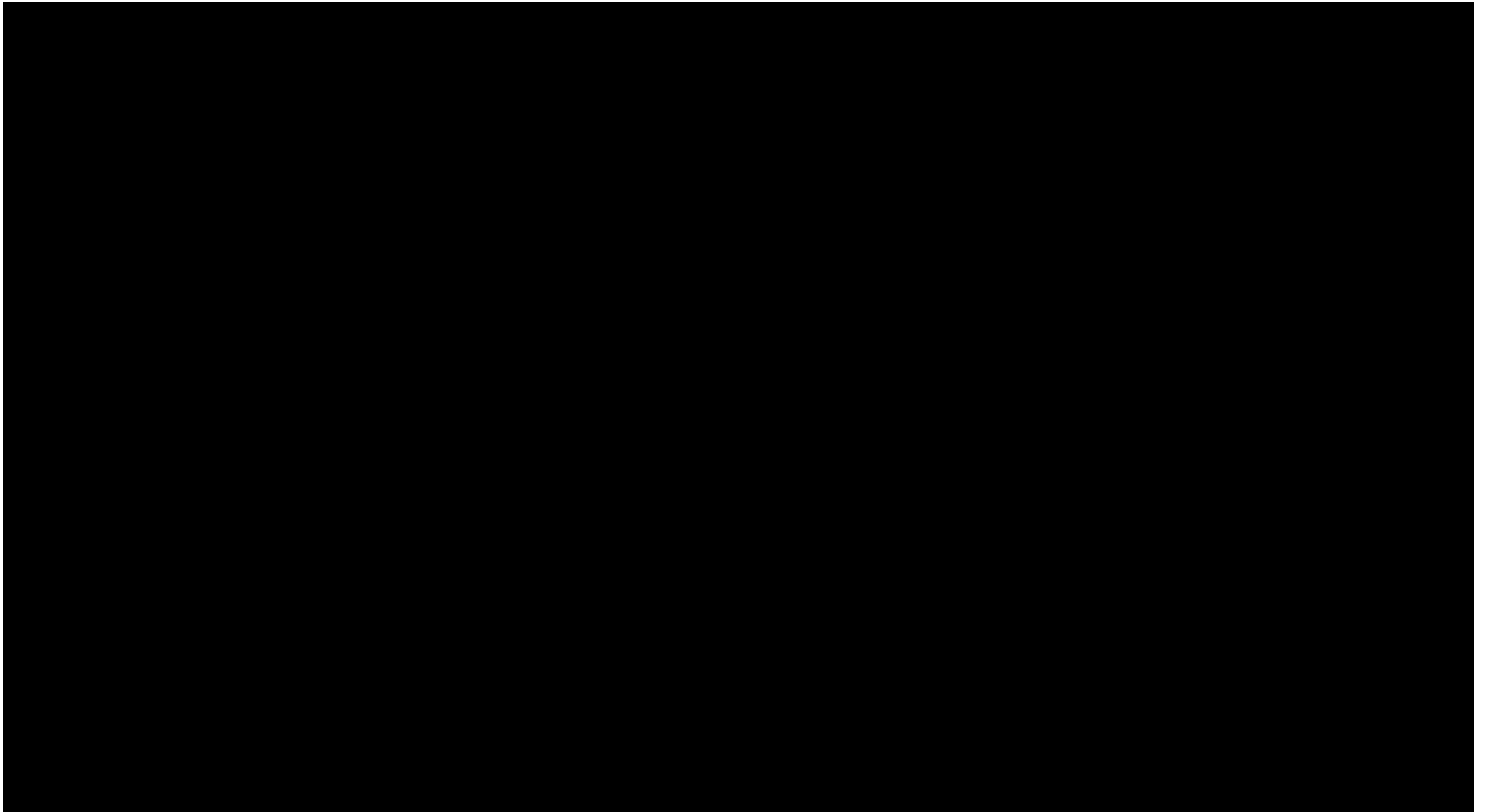
So.....

- The challenge of growing competition for resources (and the looming spectre of Climate Change) is likely to be met by more **efficient exploitation of existing resources, an evolution in consumer behaviour and attitude and increased use of alternative sources of energy and nutrition.**

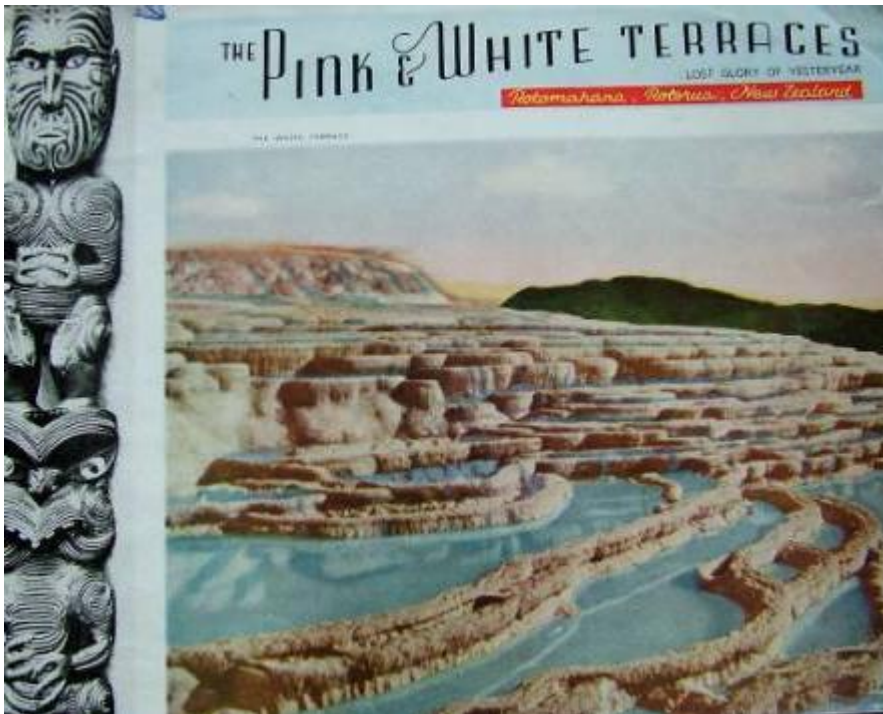
Eco Paradise

- New Zealand is a **paradise of resources** driving a land-based, export economy.
- In 2050, as the **world suffers from scarcity of resources**, eco-paradise is the **new luxury and the New Zealand tourism industry benefits**.
- However, society has taken the decision to conserve the future for the collective good, as resources and the land are important features of the Kiwi psyche.
- As a consequence, society and government know everything about you, what you do and when you do it.
- **Individualism and freedom have been sacrificed** are for the collective good. New Zealand has higher taxation model compared today and higher standard of living.
- It is an **innovation economy, with a sustainable living ethos, moral conservatism, and a controlled tourism demand and supply model which balances the economy with resources**

Last Paradise



What is a Paradise?



Positive, harmonious and timeless

Natural unspoiled beauty has been the main reason to come for those visiting the country since the late half of the nineteenth century. The very first significant attractions were those hot springs and magnificent Pink and White Terraces around Rotorua (McClure 2004)

100% Pure New Zealand

100% Pure New Zealand is considered to be an natural and elegant expression for the clean and green space that New Zealand has long occupied in the minds of the global consumers

(Bose & Muthukumar 2011)

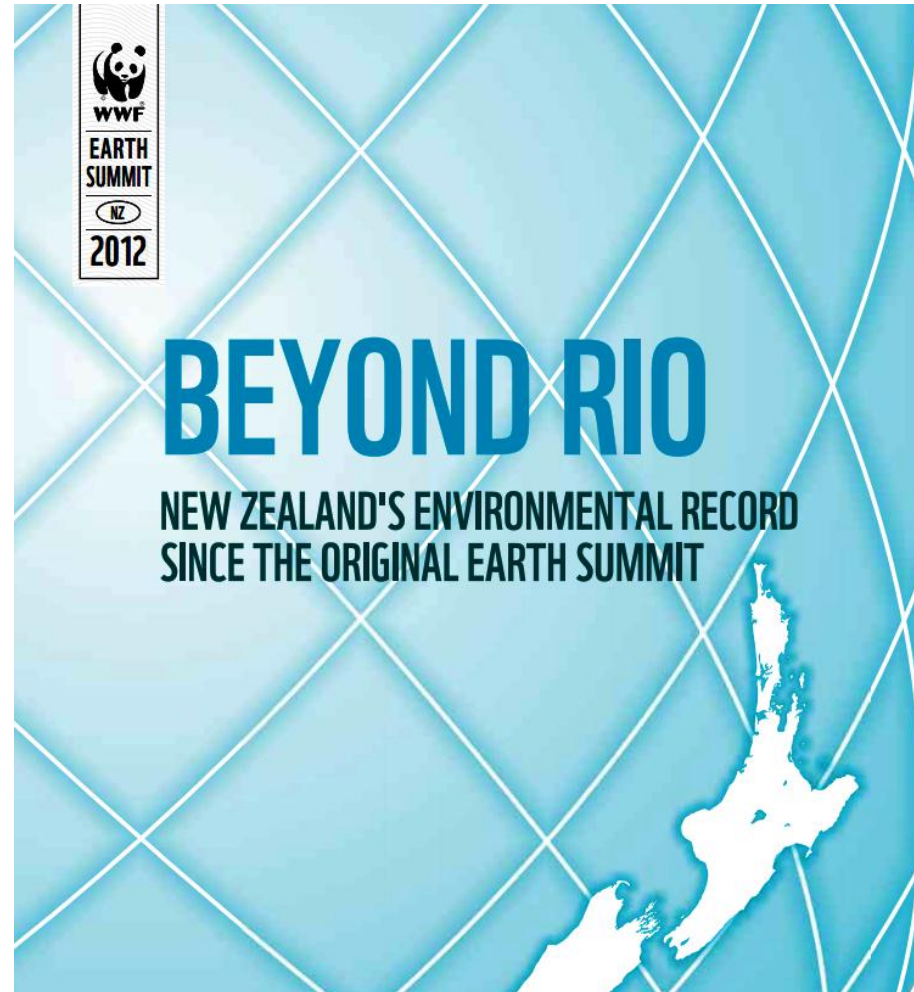


World Wildlife Fund

Aoteara, the land of the long white cloud, is now a land of polluted rivers and lakes, rising greenhouse emissions, pressured ecosystems and disappearing bird and mammal species (WWF 2012)

***“I see this report
as a wake up call
for New Zealand.
We cannot afford
another 20 years
of inaction.”***

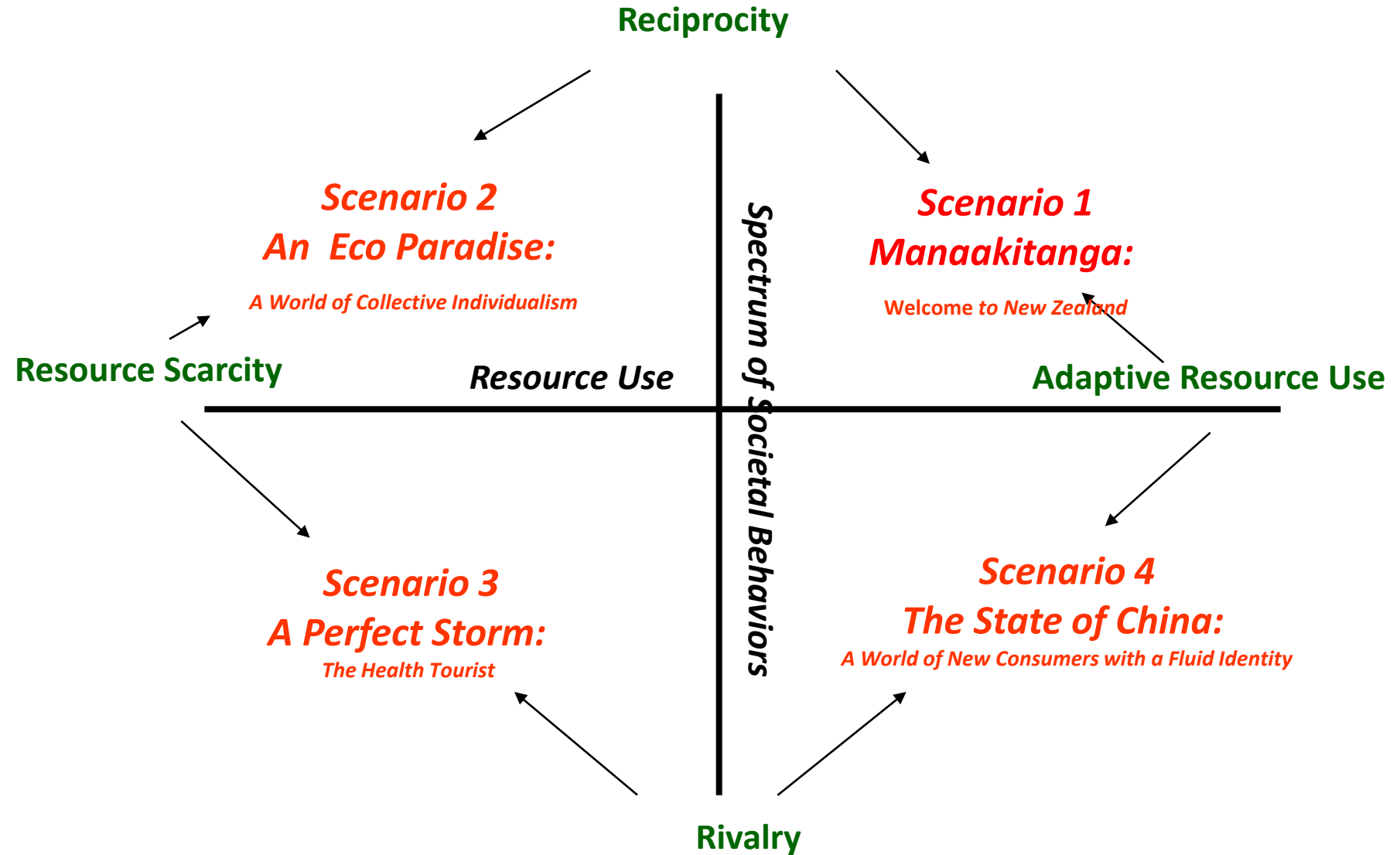
*Dr Morgan Williams
(WWF 2012)*



So, can New Zealand be an Eco Paradise?

- **Prisoners dilemma:** the circumstances that stakeholders could be faced with to address the issue of climate change and the economic trade offs

Scenario Matrix



Monte Carlo Analysis

Q2				
<u>Domestic Visitors</u>				
	<u>Low</u>	<u>Mean</u>	<u>2007%</u>	<u>High</u>
<u>Day</u>	32m	37m	27%	42m
<u>Overnight</u>	16m	19m	18%	22m
<u>International Visitors</u>				
	<u>Low</u>	<u>Mean</u>	<u>2007%</u>	<u>High</u>
	1.9m	2.3m	-6%	2.7m
<u>Total Tourism Value Added</u>				
	<u>Low</u>	<u>Mean</u>	<u>2007%</u>	<u>High</u>
	\$22.5B	\$25B	26%	28.6B
<u>Tourism % GDP</u>				
	<u>Low</u>	<u>Mean</u>	<u>2007%</u>	<u>High</u>
	5.6%	6.0%	-0.3%	6.3%

Cooperation ^

<

Resource Scarcity

Pre 2025

Q2				
<u>Domestic Visitors</u>				
	<u>Low</u>	<u>Mean</u>	<u>2007%</u>	<u>High</u>
<u>Day</u>	29m	35m	18%	40m
<u>Overnight</u>	14m	17m	5%	20m
<u>International Visitors</u>				
	<u>Low</u>	<u>Mean</u>	<u>2007%</u>	<u>High</u>
	1.1m	1.7m	-31%	2.4m
<u>Total Tourism Value Added</u>				
	<u>Low</u>	<u>Mean</u>	<u>2007%</u>	<u>High</u>
	\$25B	\$31B	52%	\$36B
<u>Tourism % GDP</u>				
	<u>Low</u>	<u>Mean</u>	<u>2007%</u>	<u>High</u>
	4.6%	5.0%	-18%	5.3%

Cooperation ^

<

Resource Scarcity

Post 2025

Scenario behaviours...

- The overarching behaviours in this scenario are shaped by a **cooperative world** in which **resources are scarce**.
- As a consequence the world has moved to a state of **collective individualism**, where a **high degree of personal freedom exists** but within the constraints of a world in which there is a scarcity of resources. A **communitarian ethos drives policy** making with an emphasis on **efficient resource use and waste minimization**.
- New Zealand is a nation favoured by climate change.
- **Environmental intellectual property** is one of the nation's key resources and in the spirit of achieving a global environmental equilibrium; these technologies are shared with the rest of the world.
- **Competitive individualism is equated with excess and resource waste**, while cooperation, harmony, and the continuation of a global cooperative psyche are seen as the foundation stones of continued relatively comfortable survival of humanity.
- Tourism is a **luxury and activities are environmentally ethical**. Visitors are well off, purposeful, highly respectful and careful to prove their worth.

Signposts of change...

- Climate change is changing the world
- The use of taxation to manage tourism demand
- Changing consumer attitudes and behaviour to climate and sustainable life style
- Big brother society enabled by ubiquitous computing
- Eco tourism as a luxury experience

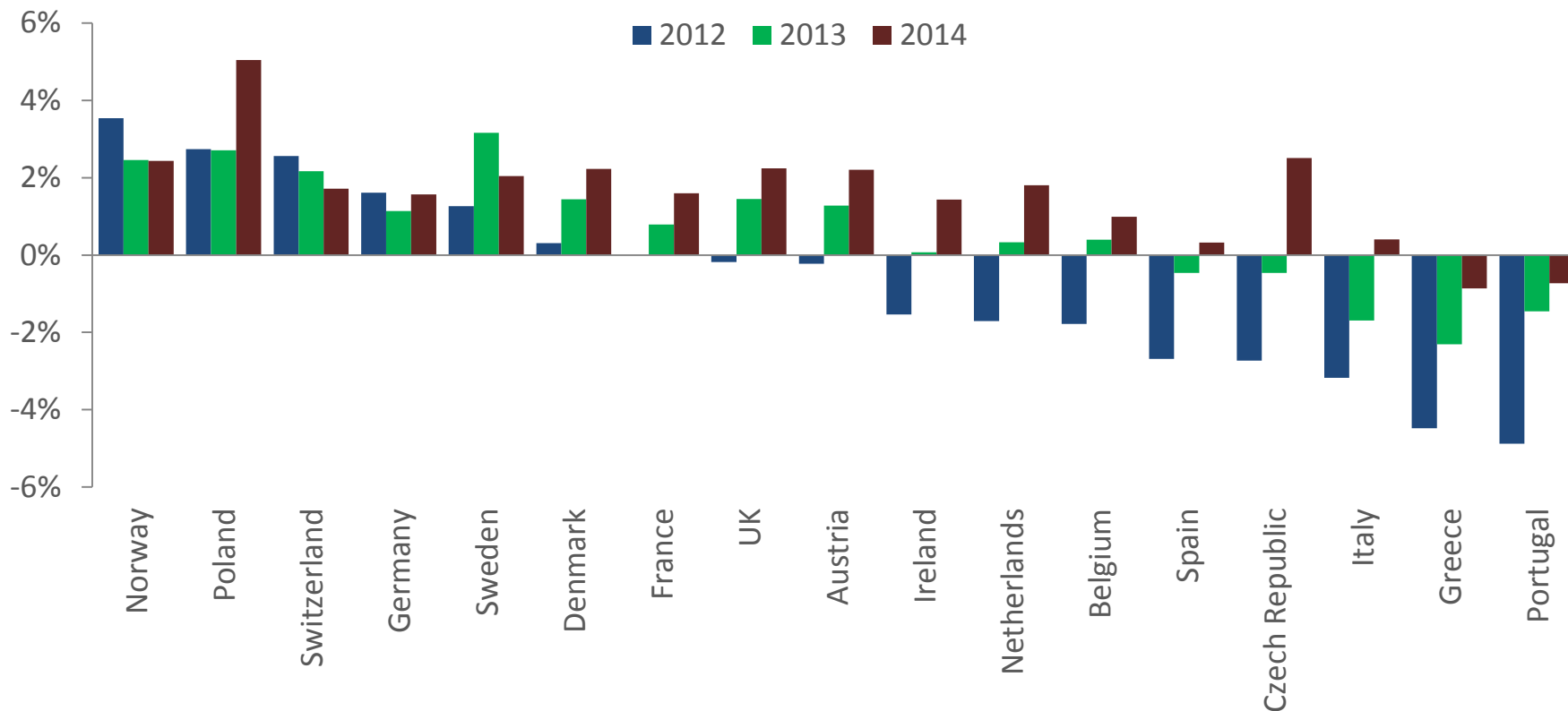
The scenario annotates.....



- **World**
 - *The world's middle classes are being squeezed as resources become scarce, price inflation erodes consumers level of disposal income, especially squeezing disposal income for out of home expenditure i.e., dining, tourism and leisure activities.*
 - ***Prioritization and incentive for resource substitution is driven both by entrepreneurship** and by severe penalties for bad practice. Sustainability is the only business model.*
 - *The **environment and natural products are perceived as the new luxury in a crowded, urban and metropolis world.***
- **New Zealand**
 - *The kiwi **psyche is green permeating government, business, society and the individual.** However in order to reach this state, individual rights have been sacrificed for the collective good through ubiquitous monitoring and compliance networks.*
 - ***New Zealand is a successful nation in a world of scarcity of resources,** and is deemed a plentiful society due to an abundance of resources that are well managed. The country's diverse economy is based upon intellectual property, a natural resource base and agricultural products, with a strong knowledge research and development attitude.*
- **Tourism**
 - ***The impact of climate change globally has been dramatic,** but New Zealand is an oasis, given that climate change here hasn't been as dramatic compared to other countries. The environment is temperate and favourable. **New Zealand's 'green' credentials and relative abundance of resources make the country popular as a tourism destination compared to 'too hot' California, or 'no snow' Europe.***
 - *New Zealand's **tourism tax for international visitors balances the needs of the environment with economics.** This sustainable approach to tourism taxation is offset if tourists undertake a number of community based projects.*
 - ***A strong domestic economy is the main driver of tourism growth to 2050.***

European real disposable income growth, year on year

Oxford Economics forecast, July 2012 projection.
Please refer to datasheet for other countries/years.



Scenario portrays..

- **Tourist (Simple Identity)**
 - The **feminisation of travel as a consequence of higher participation in education, increased purchasing power, more singletons in society and the need for a sense of purpose, i.e. volunteering.**
 - How **climate change will impact on snow sports**, therefore access becomes a matter of price and level of expertise. Technology will play a greater part in leisure activities and will have a substitution effect on tourism.
 - Technological advancement in **medical applications will make disability access easier.** In addition, as populations age more opportunities arise to engage with impaired travellers
- **Tourist (Fluid Identity)**
 - **Historically, everyone has had the right to access tourism, however in the future, it could be propositioned that this right is no more.** The Kumar's right to travel has been curtailed for the benefit of the environment as a consequence of climate change.
 - **Exclusivity in this story is about the right to purchase an eco-paradise experience in New Zealand.** However a fluid identity still means the tourist wants novelty, comfort and quality. This is represented by the Subaqua Hotel in Milford Sound.
 - Technological solutions to the problems of climate change are emphasised with the use of airships as an **innovative tourism product to mitigate impact.**
 - The future consumer will be **socially aware and pertain to moral behaviours** when it comes to their relationship with the environment.

Women choosing to remain in the career-force and delay family-making.

The mean age for a woman getting married in the UK is
30 years.



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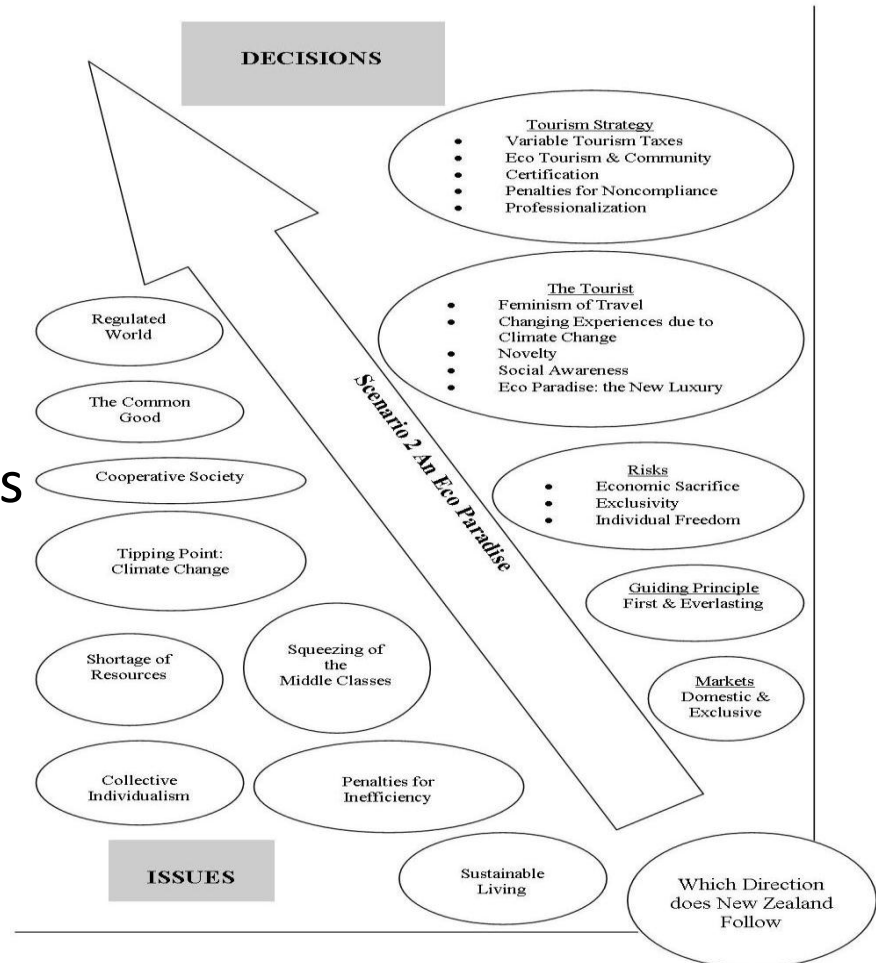
Inconspicuous Consumption

Consumers in the West are moving away from ostentatious consumption as a way to acquire or affirm social status. In turn, quietly expressed savoir-vivre is becoming the default setting.

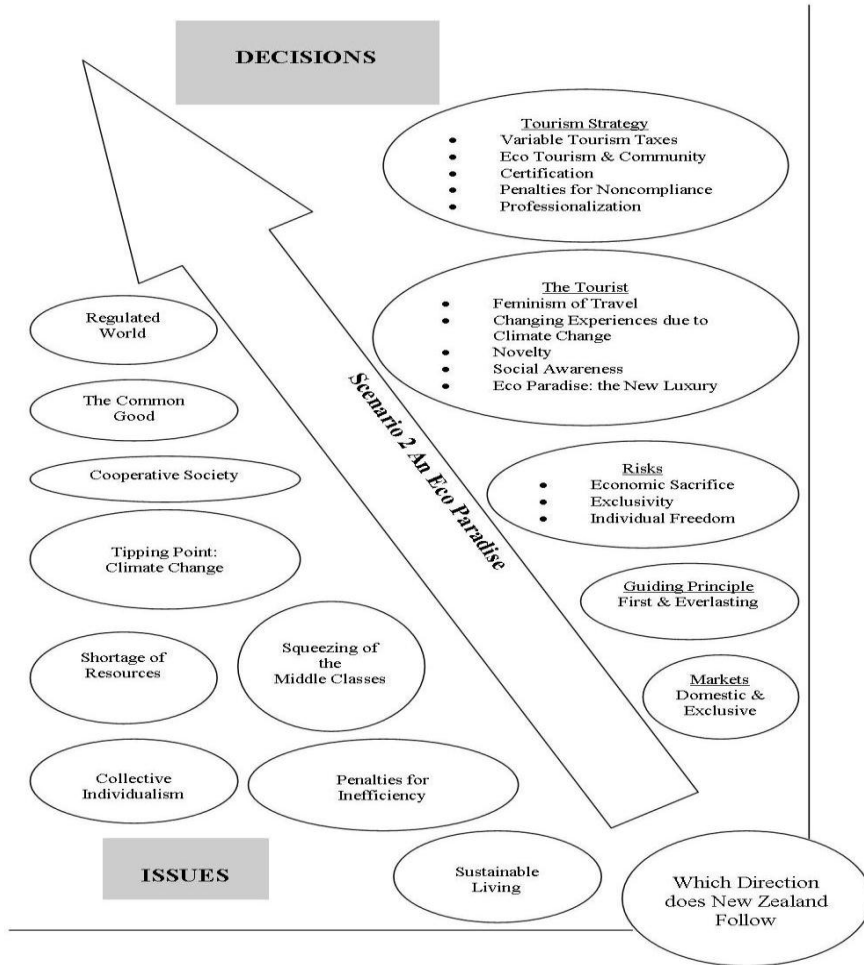


- **Key issues for decision makers**

- Regulated world
- The common good
- Tipping point: climate change
- Shortage of resources
- Squeezing middle classes
- Collective individualism
- Penalties for decision makers
- Sustainable living



Decisions



- **Guiding Principle**

- First and Everlasting

- **Tourism Strategy**

- Variable tourism taxes

- Eco tourism and community

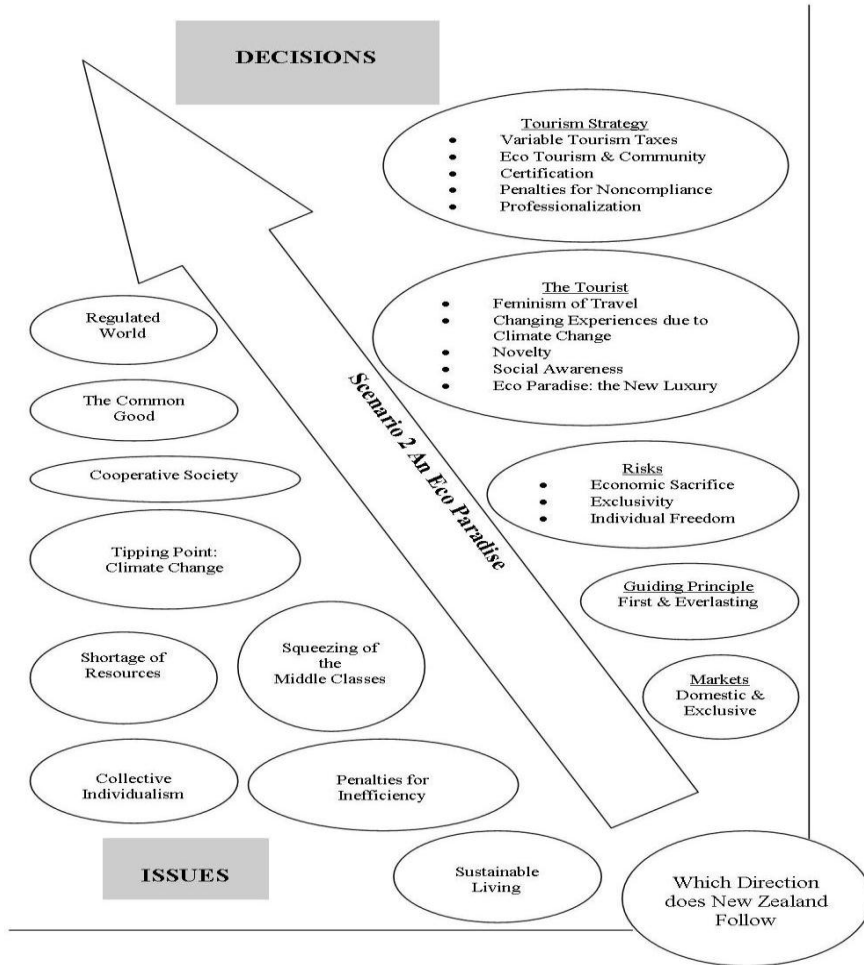
- Green certification and quality assurance

- Penalties for non compliance

- Professionalization

- Shape and size - smaller

Decisions



- **Markets**

- Domestic and exclusive

- **The Tourist**

- Feminism of travel
- Changing experiences due to climate change
- Novelty
- Social awareness
- Eco Paradise: the *New Luxury*

- **Risk**

- Economic sacrifice
- Exclusivity
- Individual freedom

Concluding thoughts

- What if the world didn't co-operate.....



What will New Zealand tourism look like in the year 2050?

When: Tuesday 9 October, 4.30pm

Where: 12th floor Boardroom, Rutherford House

The **Tourism 2050** project outputs are two books, describing the scenarios, future decisions and behavioural frameworks that may give direction in answering this question.

Yeoman, I. with Davies, J., Wheatley, C., Mars, M., Schänzel, H.L. and Butterfield, S. (2012) *Tourism 2050: Scenarios for New Zealand*. Bateson Publishers, Wellington

Moriarty, J (2012) *Tourism 2050: Planning for the Future*. Bateson Publishers, Wellington

We would like to invite you to the book launches and social gathering, hosted by Martin Snedden, Chief Executive of the Tourism Industry Association.

RSVP to carol.wheatley@vuw.ac.nz or phone 04-463 5141 by Friday 28 September.

References

Bruinsma, J. (2009), The Resource Outlook for 2050: By How Much Do Land, Water and Crop Yields Need to Increase by 2050? Paper presented at the FAO Expert Meeting, 'How to Feed the World in 2050?' 24-26 June 2009, Rome.

Yeoman, I et al (2012) Tourism2050: Scenarios for New Zealand. Victoria University of Wellington

Trend data supplied by Future Foundation. Accessed on the 1st October at www.futurefoundation.net