Tourist air travel and climate change

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Different perspectives

From a global perspective:

- Need to reduce emissions: higher airfares, less travel, climate impact reduced

From a destination perspective:

- Need to maintain/grow arrivals: higher airfares, less travel, reduced economic benefit

Dilemma for NZ as a “sustainable destination”

Let’s start with the global picture

Global Tourism Emissions in 2005: CO_2 Only (UNWTO Davos report)

Sub-Sectors	CO_2 (Mt)	
Air transport *	**522**	40%
Car transport	**418**	32%
Other transport	**39**	3%
Accommodation	**274**	21%
Activities	**52**	4%
TOTAL tourism	**1,307**	
Total World (IPCC 2007)	**26,400**	
Tourism Contribution	**4.95%**	

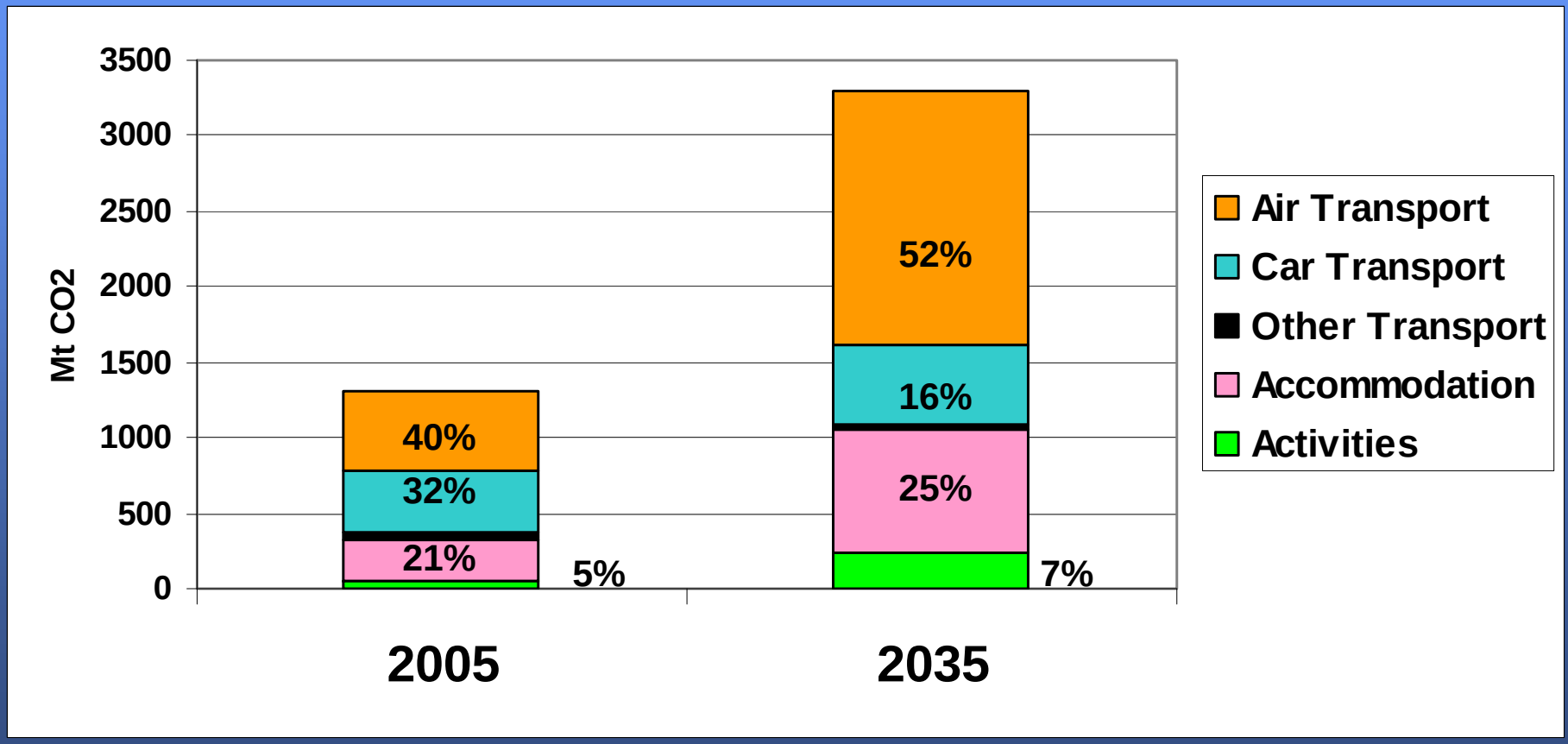
Transportation of Tourists = 75% of Sector Emissions

* - does not include non-CO2 emissions and impact on climate

If Tourism was a Country

Rank	Country	Percentage of total emissions (2005)
1	United States	22.2 %
2	China	18.4 %
-	*European Union*	11.4 %
3	Russia	5.6 %
-	**Global Tourism Sector**	**4.95%**
4	India	4.9 %
5	Japan	4.6 %
6	Germany	3.0 %
7	Canada	2.3 %
8	United Kingdom	2.2 %
9	South Korea	1.7 %
10	Italy	1.7 %

‘Business as Usual’ Projection of Future CO_2 Emissions from Tourism*



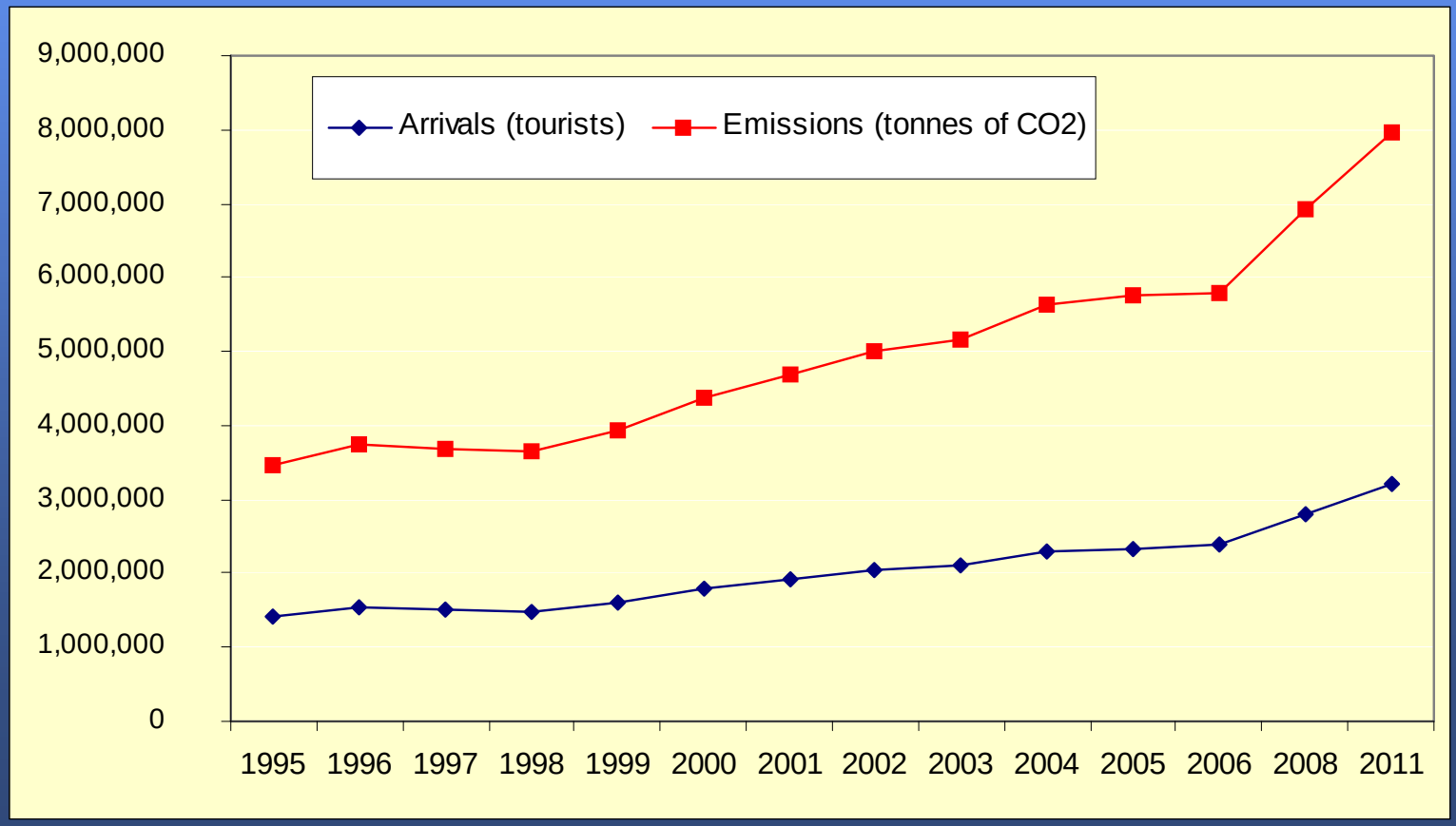
* Excluding same-day visitors; UNWTO Davos report

Now to New Zealand

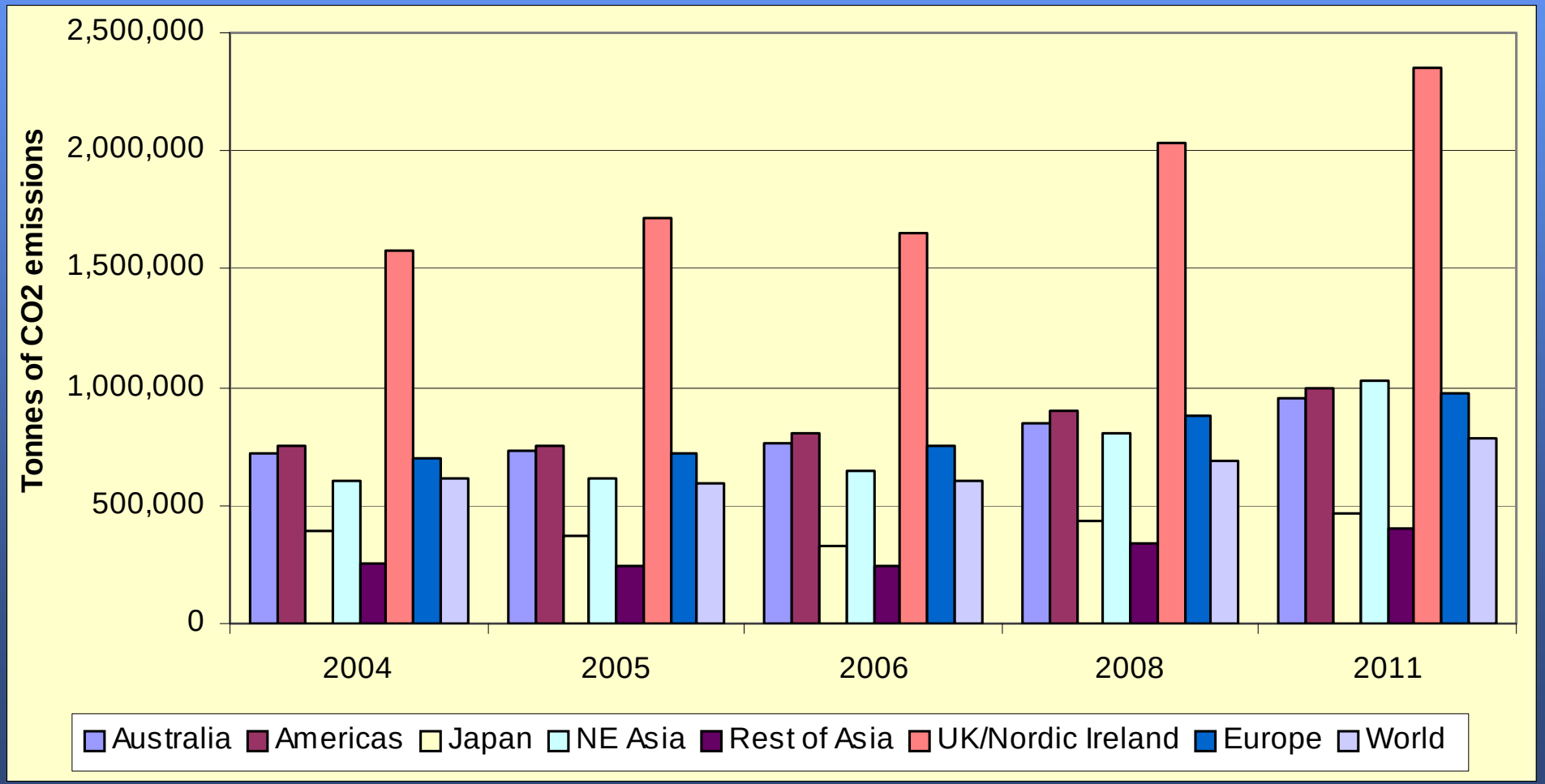
… reflects the global picture

Emissions: international tourists to NZ

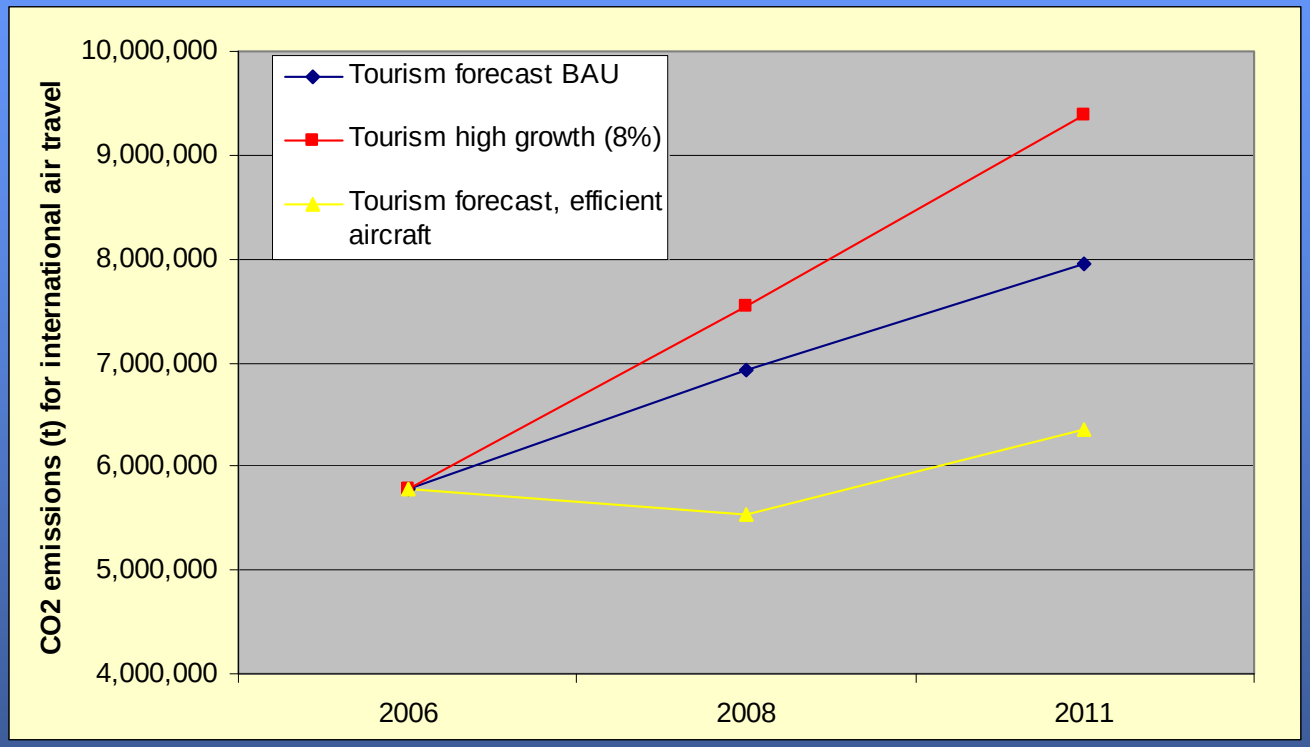
- Historic and forecast arrivals to New Zealand, and CO2 emissions for resulting return travel by air



Emissions by markets



Very simple scenario



- Tourism forecast BAU: as in the Ministry's forecast
- Tourism high growth: 'aspirational' 8%
- Tourism forecast (as in BAU), and 20% more efficient aircraft

In addition: emissions from tourists' domestic travel

Drivers of change

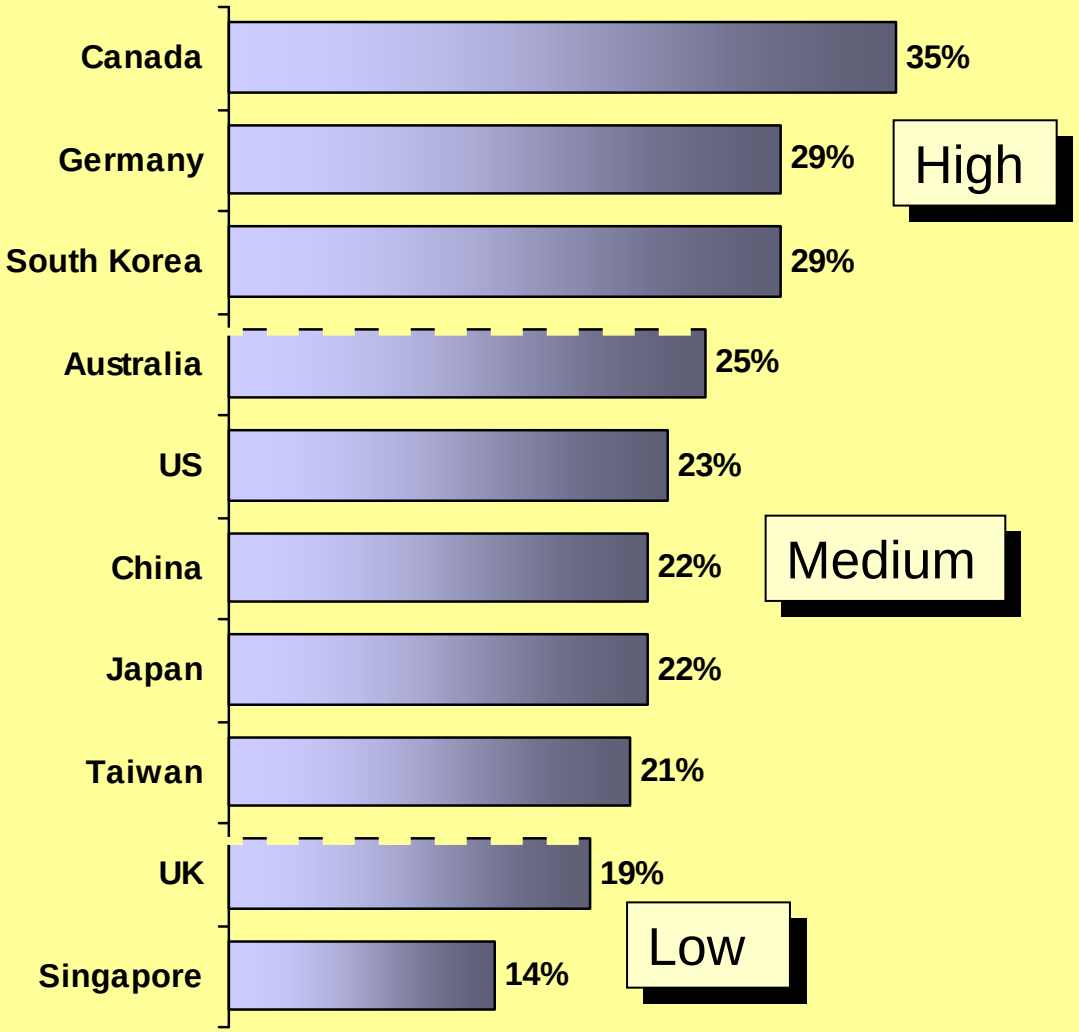
What would lead to reduced emissions?

- Environmental perceptions
- Climate policies (i.e. $)
- Global oil prices (i.e. $)

Let’s focus on international air travel again

Environmental perceptions

ACNielsen study: How concerned are you about the environment? % Very Concerned



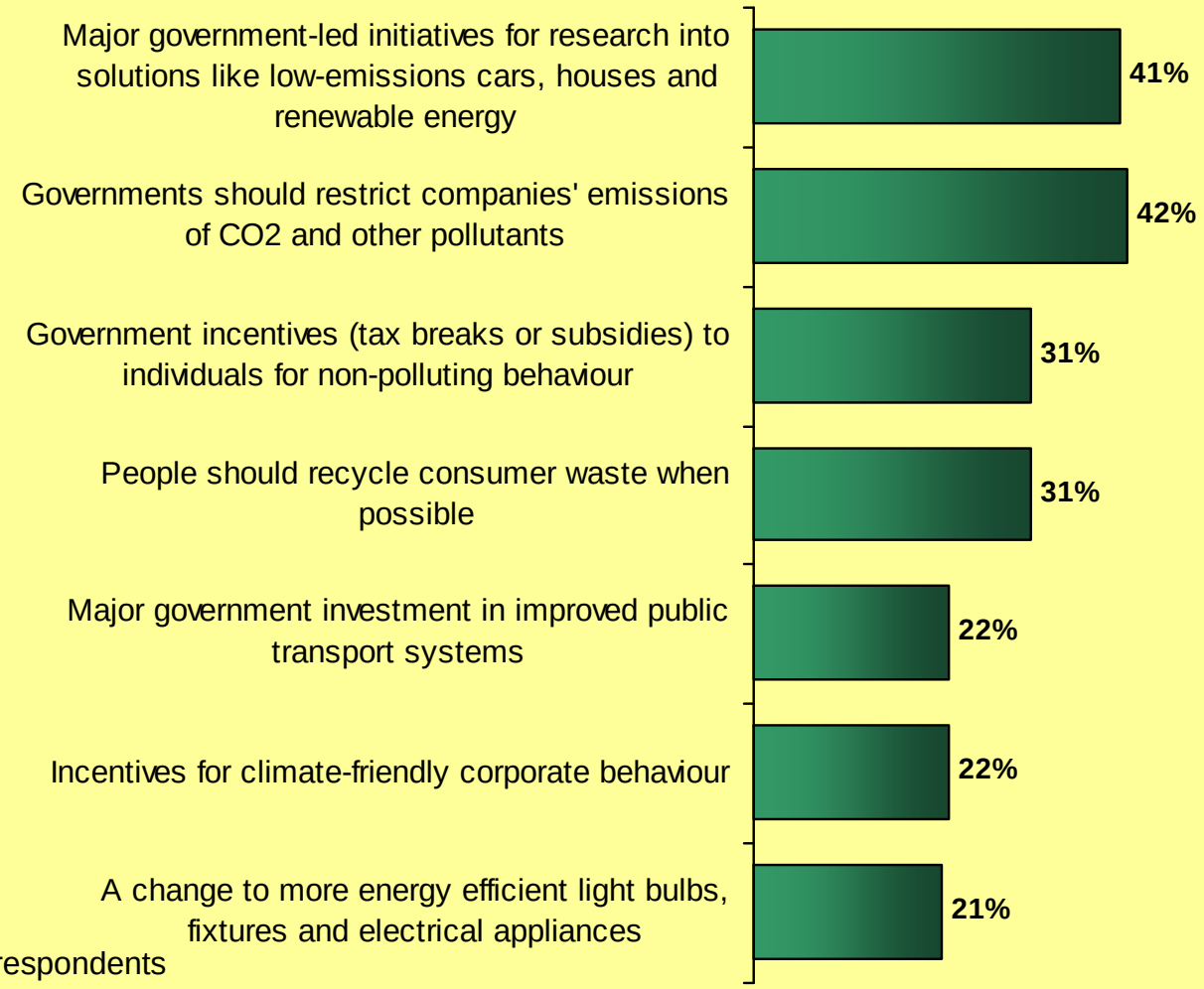
Nielsen Global Online Survey, 2007

2007 Lonely Planet Survey

- 24,500 respondents globally
- 84 percent would consider carbon offsetting of travel emissions
- 31 percent had already done so
- Similar responses Asia and rest of World
- Only 7 percent did not think carbon emission were a concern
- 93 percent would/might participate in environmentally friendly travel in future

However…

What are the biggest contributions society can make to combat global warming/climate change?



Government-led initiatives come first

Base: All respondents

Nielsen Global Online Survey, 2007

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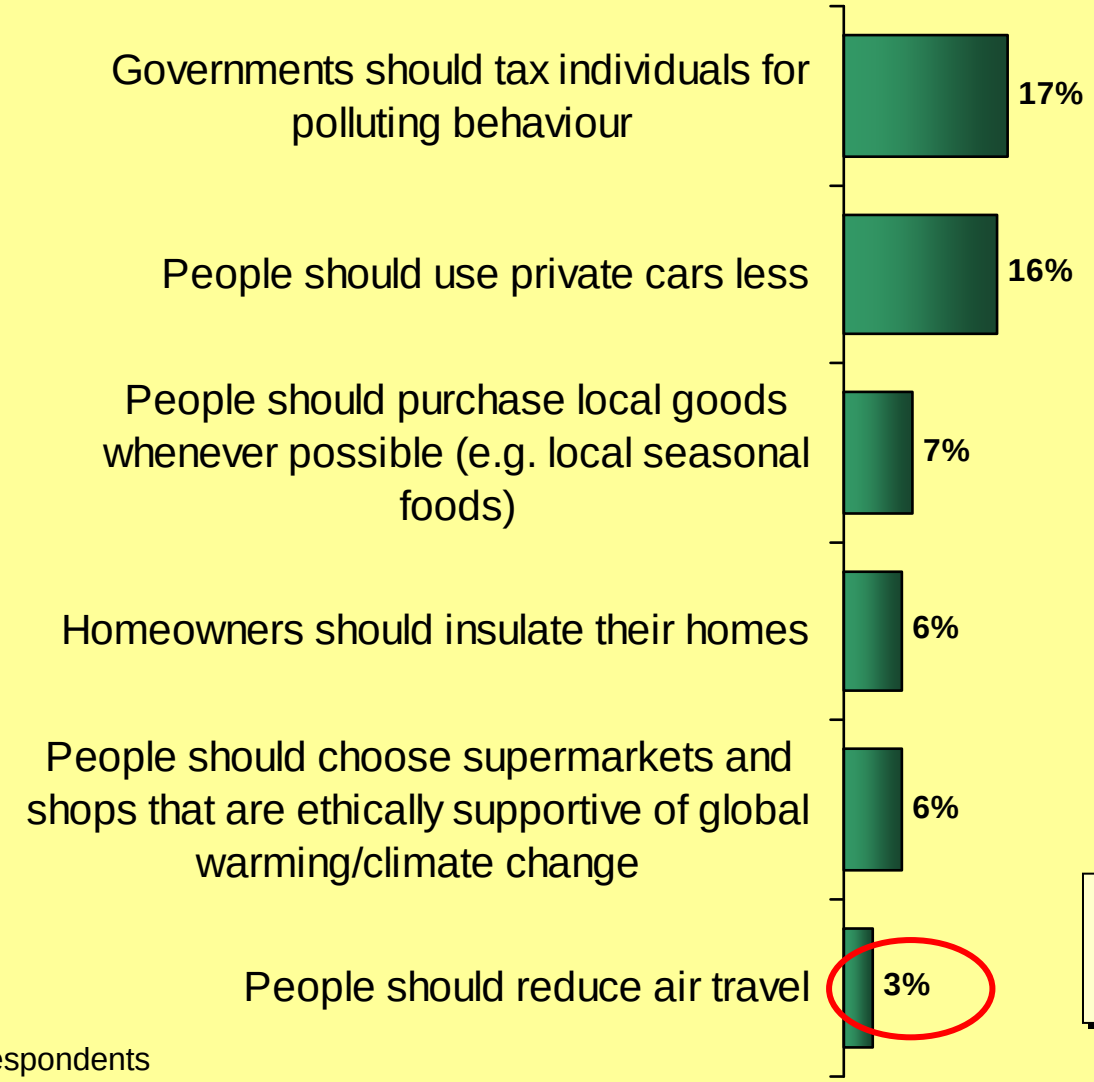


Reducing air travel comes last

Base: All respondents

So-called ***Green Market Gap***

Tourists are aware (and feel guilty, and maybe carbon offset) but have not changed behaviour –yet.

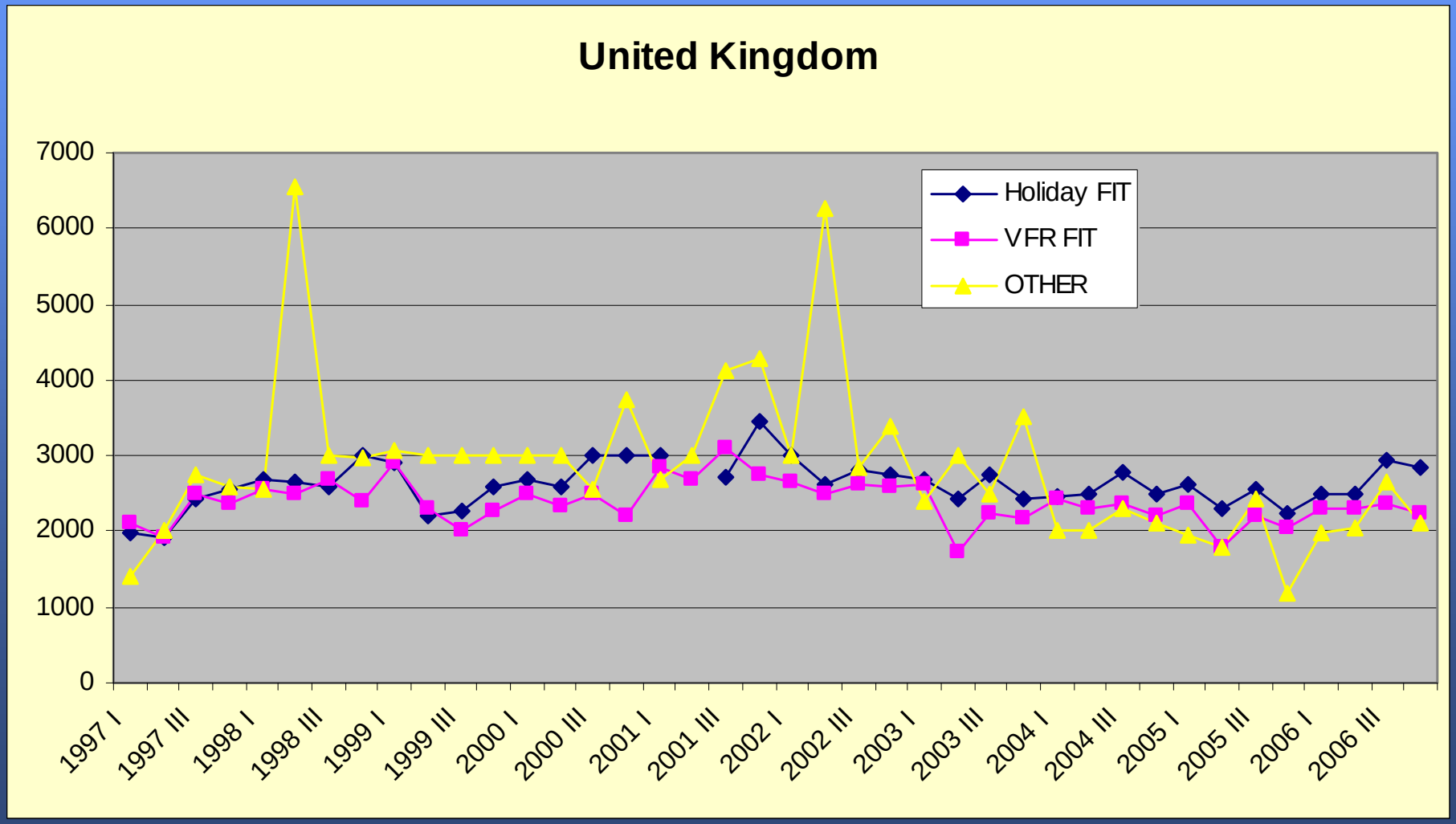
Increased airfares

- As a result of climate policies or oil prices

Price elasticity: say -0.7

- => for every increase in airfare of 1%, demand will decrease by 0.7%

Airfares are a complicated matter



Example for UK-NZ

- Airfare from Europe to NZ about $2500
- Estimated carbon cost, e.g. $250
- Airfare increases by 10%
- Demand expected to decrease by 7%
- The average UK visitor spends $3283 in NZ
- 7% less => 19,000 fewer UK tourists
- Loss of about $62 million

Economic implications

- Could be huge
- Depend on different price sensitivities of different markets
- Depend on climate policies
- Will also be influenced by environmental attitudes
- Too early to say

Recommendations

- Further analysis into price sensitivity (Lincoln University's oil project)
- Monitoring of perceptions
- Exploring domestic tourism
- Identifying high-yield niches
- Preparing for less growth than anticipated