Introduction

Thank you for taking the time to fill out this questionnaire as part of my research for a Masters in Transportation Engineering at the University of Canterbury.

This research has been reviewed and approved by the University of Canterbury Human Ethics Committee.

By completing the questionnaire it will be understood that you have consented to participate in the project, and that you consent to publication of the results of the project with the understanding that complete anonymity will be preserved.

You do not have to answer all questions, only those as indicated with an asterix *

You can go back and edit your answers until you click "complete" at the end of the questionnaire. Once you have started you can stop and exit the questionnaire, then return to the questionnaire at another time, however you must come back to the same computer in order to pick up and finish. To re-enter the questionnaire simply click on the link in your email again and it will open your browser on the same page you left the questionnaire.

The questionnaire should take approximately 20 minutes.

Thank you very much for your participation, it is much appreciated.

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1. If you like you can read more detailed information about the research and survey now?

Yes, I would like to read more detailed information

No, begin the survey

Further information

The aims of this research project are to understand: 1. How transport policy makers perceive peak oil and what are their attitudes towards the issue; and 2. Transport policy maker's actions and responses towards the possibility of peak oil.

'Peak oil' can be defined as the point in time when the maximum rate of global oil extraction is reached.

When peak oil is reached the rate of oil production enters decline and the depletion of existing reserves can no longer be replaced by additions of new flow capacity. Peak oil does not mean oil will run out completely, but that the ability to produce cheap and economically extractable oil on demand would diminish.

This could impact transport systems as fuel prices could rise and fuel shortages would affect road users. The cost of road construction and maintenance would increase as bitumen is a byproduct of refining oil for fuels.

'Transport policy makers' are defined in this research as elected officials (Councillors) and those staff involved in transport policy making, The organisations involved in the project are:

This project is being carried out as part of a Masters Thesis (Transportation Engineering) being completed through the University of Canterbury by Rebecca Wardell, under the supervision of Dr Andre Dantas. Dr Dantas can be contacted at (03) 364-2238 or andre.dantas@canterbury.ac.nz. He will be pleased to discuss any matters relating to the project.

The questionnaire is anonymous, and you will not be identified as a participant without your consent. You have the right to review the transcript of your questionnaire and may withdraw your participation, including withdrawal of any information you have provided, until your questionnaire has been added to the others collected. Because it is anonymous, it cannot be retrieved after that.

The results of the project may be published, but you may be assured of the complete anonymity and confidentiality of data gathered in this investigation. To ensure anonymity and confidentiality, names will not be recorded as part of the process. All data collected will be stored securely and will not be made available to third parties.

Basic Information

2. Age					
() 20-30				ers in your org	
31-40					
41-50					
51-60					
61+					
	0 0	ropresent	?		
* 3. Which organisa	ation do you	Tepresent	ectoral cycle	r central governingnt g	
(Please note this only. Individual o research results)	information rganisations).	s will not be	e singled out	in the publishe	ed _D
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	rolo2				
* 4. What is your	role:				
Councillor					
Staff member					
Other (please spec	cify)				

Future challenges

* 5. What do you think will be the main challenges for transport policy makers in your organisation in the next 30 years?

Rank the following challenges using the scale from 1 to 10, with 1 being the most challenging and 10 the least challenging

	1 Most	2	3	4	5	6	7	8	9	10 Least
Public health	ja	ja	D.	ja	ja	D.	D.	ja	ja	ja
3-year central government electoral cycle	jn	ĴΩ	jn	jn	jn	jn	jn	j n	Jn	jn
Peak oil - reduced availability of fossil fuels	ja	ja	D.	ja	ja	D.	D.	ja	ja	ja
Climate change and environmental impacts	jn	ĴΩ	jn	jn	jn	jn	jn	j n	Jn	jn
Facilitating economic growth	ja	ja	ja	ja	ja	ja	ja	ja	рţ	ja
Congestion/Road capacity/Space to meet demands	Jm	jm	'n	jn	jn	jn	jn	jn	Jm	j n
Road safety	ja	ja	D.	ja	ja	D.	ja	ja	ja	ja
Funding and affordability	jn	ĴΩ	jn	jn	jn	jn	jn	j n	Jn	jn
Managing land use and transport integration	ja	ja	ja	ja	ja	ja	ja	ρį	ja	ja
Mobility and accessibility for an aging population	jn	jn	jn	jn	jn	jn	jn	jn	jn	jn

Are there any other challenges you see as being significant?

Key transport policy objectives

The New Zealand Transport Strategy lists five key objectives:

Ensuring environmental sustainability; Assisting economic development; Assisting safety and personal security; Improving access and mobility; and Protecting and promoting public health.

Local and regional organisations take these objectives into account when developing their transport policy.

* 6. Using the scale below compare the objectives of the NZ Transport Strategy in terms of what you consider to be their relative importance in the development of transport policy in YOUR organisation.

8 is extremely MORE important-8 is extremely LESS important0 is of EQUAL importance

	8 More	6	4	2	0	-2	-4	-6	-8 Less
Is economic development more or less important than safety	βΩ	'n	μ	ja	ja	jn	jn	ja	jn
Is economic development more or less important than access/mobility	Jm	jn	ļ'n	ļ'n	ļ'n	jn	jn	jn	jn
Is economic development more or less important than environmental sustainability	βΩ	ja	μ	βŋ	βŋ	jn	jn	ja	ja
Is economic development more or less important than public health	ļņ	j n	ļ'n	ļ'n	j n	jn	jn	jn	jn
Is safety more or less important than access/mobility?	ja	ja	ja	ja	ja	ja	ja	ja	ja
Is safety more or less important than environmental sustainability?	jn	J n	jn	j n	j n	jn	jn	ļņ	jn
Is safety more or less important than public health?	ja	ja	ja	ja	ja	ja	ja	ja	ja
Is access/mobility more or less important than environmental sustainability?	jn	jn	jn	jn	j n	jn	jn	jn	jn
Is access/mobility more or less important than public health?	βΩ	ja	βŋ	βŋ	βΩ	jn	jn	ja	j:n
Is environmental sustainability more or less important than public health?	jn	jm	jn	jn	jn	jn	jn	jn	jn

Sustainable transport and investment

The Ministry for the Environment defines sustainable transport as: "finding ways to move people, goods and information in ways that reduce its impact on the environment, the economy, and society, e.g. walking, cycling and public transport, improving the efficiency of our car use, using cleaner fuels and technologies, using telecommunications to reduce or replace physical travel, and planning the layout of our cities to bring people and their needs closer together"

* 7. Do you consider the amount of investment in sustainable transport measures to be adequate in your city?

- Very adequate
- Adequate
- in Inadequate
- Very inadequate
- Don't know

* 8. Choose THREE areas you think should be prioritised for investment in transport in your city

- € Building new roads for key freight/tourism/economic corridors
- Building new roads in congested areas
- € Improving amenity areas (e.g. CBD revitalisation)
- € Improving facilities for pedestrians and cyclists
- € Improving personal safety and comfort on public transport
- Improving road safety
- E Introducing or improving bus services
- Introducing or improving train services
- € Promoting travel demand management and travel behaviour change measures
- € Public transport infrastructure (e.g. bus priority, real time info)
- Reducing the cost of public transport
- ∈ Road and pavement maintenance

9. Who do you think should be primarily responsible for carrying out investment in these three areas?

- Central government
- n Regional government
- Local government
- jn Don't know
- Other (please specify)

* 10. Do you consider any of the following factors to currently be a BARRIER to implementing sustainable transport policies in your city?

Use the scale from 1 to 5, with 1 being a significant barrier, 5 being no barrier

	1 Significant barrier	2	3	4	5 No barrier	Dont know
Lack of funding available from Central Government	ja	ja	ja	ja	ja	ja
Concerns from within your organisation about sustainable transport policy having a negative impact on local business/industry and the economy	jn	jn	jm	j'n	jn	jn
Lack of public acceptance of policies	ja	ja	D.	ja	ja	D
Lack of political support from Central Government	jn	jn	jn	jn	jn	jn
Lack of funding available at local level	jen	ja	ja	ja	ja	ja
Lack of political support from within your organisation	jn	jn	jn	jn	jn	jn
Are there any other factors you consider to be a significant barrier?				_		

Economic Growth

* 11. Do you agree or disagree with the following statements about economic growth and transport policy:

	Strongly agree	Agree	Neither agree or I disagree	Disagree	Strongly disagree
The current Central Government's transport policy of increased funding for "roads of national significance" promotes short term economic growth at the expense of long term sustainability objectives	ja	ja	jn	ja	jn
Economic growth can be achieved with a sustainable transport system that reduces dependance on fossil fuels and protects the environment	jn	jn	jn	jn	jn

Influences on transport policy

* 12. Please rank the following groups in terms of who has the most INFLUENCE over the content of transport policy in your organisation?

Use the scale of 1 to 9, with 1 having the most influence, 9 having the least influence.

	1 Most	2	3	4	5	6	7	8	9 Least
Environmental/Community groups	ja	ja	ja	ja	ja	<u>pt</u>	ja	ja	ja
Council technical staff (transport planners/engineers)	jn	jn	j'n	j'n	jn	j m	jn	j'n	jn
Business/Industry	ja	ja	ja	ja	ja	ja	ja	ja	p.
Academic researchers (e.g.University)	jn	jn	jm	jm	jn	jm	jn	j'n	Jn
Elected officials (Councillors)	ja	ja	ρţ	ρţ	ja	ρţ	ja	ja	j:n
Central government	jn	jn	jn	jn	jn	jn	jn	jn	j m
Consultants	ja	ρį	D	D	ja	D	ja	ja	ja
Ratepayers/Residents Associations	jn	jn	jn	jn	jn	jn	jn	jn	jn
General public	ja	<u>p</u> t	ρţ	ρţ	ja	ρţ	ja	ja	ja
Are there any other groups/individu	ials vou co	nsider to	o be verv	influenti	al?				

Are there any other groups/individuals you consider to be very influential?

 * 13. For the number one ranked influential group above (most influential), HOW do they predominately influence transport policy decisions? (choose one)

- Through the formal consultation process
- Through formal meetings with policy makers
- Through informal meetings with policy makers
- Through statutory powers and/or requirements
- j∩ By providing technical advice to policy makers
- By lobbying policy makers to ensure their needs are met
- By creating media interest in certain projects or issues
- $_{\mbox{\sc fin}}$ By controlling or influencing the funding for transport projects
- Other (please specify)

* 14. For the number two ranked influential group above (second most influential), HOW do they predominately influence transport policy decisions? (choose one)

- Through the formal consultation process
- Through formal meetings with policy makers
- In Through informal meetings with policy makers
- Through statutory powers and/or requirements
- By providing technical advice to policy makers
- ${\ensuremath{\upharpoonright}} \Omega$ By lobbying policy makers to ensure their needs are met
- By creating media interest in certain projects or issues
- By controlling or influencing the funding for transport projects
- Other (please specify)

* 15. Do you agree or disagree with the following statements about transport policy making:

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly Disagree
The general public are usually reluctant to accept major changes to policy and tend to support minor policy changes that are more familiar and have the least uncertainty	jn	ja	ja	ja	ja
There are a wide range of stakeholders to satisfy, therefore compromises need to be made to ensure broad support for policies	j n	jņ	Jn	jn	jn
Major changes to policy should be made regardless of lack of public support, if such changes are necessary for the long term greater good of the public	ja	ja	ja	ja	ja
It is better to make small, incremental changes to existing policy rather than risk making mistakes with major changes to policy	j'n	jn	jn	jn	jn
Making small changes to existing policy, rather than introducing major new changes helps to ensure the political feasibility and acceptability of any proposed policy	ja	ja	βα	ja	ja

Awareness of peak oil

* 16. How do you rate your knowledge of the peak oil subject?

- Very well informed
- in Informed
- Not informed, but have heard about it
- $_{\mbox{\sc h}}$ Never heard of peak oil before being approached to participate in this research

Source of info

- * 17. Please indicate the MALN source of information from which you gained knowledge about peak oil (choose one)
 - n Consultants
 - Conferences/presentations
 - Scientific journals and articles
 - Internet (websites)
 - Media (Newspaper, TV, Magazine, Radio)
 - Colleagues
 - Other (please specify)

Peak oil and transport in the future

* 18. Do you PERSONALLY believe that peak oil could create problems for the transport system in your city in the future?

jn Yes, major problems

- jn Yes, minor problems
- jn No
- Don't know

Peak oil and transport in the future (a)

* 19. Why do you think peak oil will NOT create problems for the transport system in the future? (Choose one or more)

 \in Because there will only be a slow decline in oil supplies over a long period enabling effective planning to minimise any problems

€ Because peak oil will not occur, there is plenty of cheap oil available in the world

€ Because existing policies that promote public transport, walking and cycling will sufficiently reduce the reliance on fossil fuels

€ Because alternative fuels and technologies such as bio-fuels or electric cars will replace the need for fossil fuels in transport

€ Other (please specify)

Peak oil problems

* 20. In what time frame do you think peak oil could start to create problems?

- jn Before 2015
- jn 2015-2030
- jn 2030-2050
- After 2050
- Don't know

* 21. If peak oil does occur, do you anticipate any of the following scenarios happening in your city as a result? (Choose one or more)

 \in The industrial sector will collapse as it is too dependent on oil to continue to operate effectively

€ Maintenance of road infrastructure will be increasingly difficult because of loss of revenue (from fuel taxes) and reliance on asphalt

 \in $\$ Increased food costs and disruption to food supplies due to fuel supply and costs

€ Car use will decline and people will seek alternative transportation for their needs (e.g. public transport, cycling, telecommunications)

- E Transportation of freight will become more costly, likely leading to mode shifts from truck to rail and boat
- E Significant investment will be made in alternative fuels to mitigate any peak oil impacts
- \in Sudden fuel supply disruptions and price hikes, triggering periodic fuel supply emergencies
- ∈ Multiple economic recessions
- E Increasing conflicts over fuel resources

e People and businesses will need to relocate to be closer to each other and to transportation options; population will likely shift to city centres

∈ Other (please specify)

Council peak oil planning (a)

* 22. What PRIORITY is given to planning for the possibility of oil shortages in the future in your organisation?

- jn It is a major priority
- Some consideration at present
- n No priority at all
- n Don't know

Council peak oil planning (b)

* 23. Why is planning for peak oil NOT a priority in transport policy in your organisation? (Choose one or more)

€ Because transport policy aimed at significantly reducing fuel demand and consumption would be politically unacceptable

 \in Because the science is inconclusive about the reality, timing and potential impacts of peak oil which makes it difficult to plan for

€ Because there is plenty of time to plan in the future, peak oil will not occur for decades to come

€ Because peak oil will not occur, there is plenty of cheap oil available in the world

 \in Because the transport budget is limited and peak oil planning is not a priority for funding

€ Because existing transport policies aimed at reducing greenhouse gas emissions will reduce the demand for fossil fuel consumption anyway

 \in Because policy direction to plan for peak oil needs to be lead from Central Government first

€ Because alternative fuels and technologies such as bio-fuels or electric cars will replace the need for fossil fuels in transport

 \in Because there is a lack of political will from within the organisation to plan for peak oil

 \in Because policy aimed at significantly reducing fuel demand and consumption may be harmful to the economy

€ Because transport policy aimed at significantly reducing fuel demand and consumption would be publically unacceptable

€ Other (please specify)

Council peak oil planning (c)

* 24. What factors have lead to planning for peak oil being prioritised by your organisation? (Choose one or more)

- E Desire by the city to be a leader in implementing sustainable transport solutions
- € Pressure from environmental/community groups and their concerns about future fuel shortages
- € Pressure from the general public and their concerns about future fuel shortages
- € General consensus amongst Councillors
- E The realisation that it is cheaper to plan now to reduce potential negative impacts later
- € Direction from Central Government to plan for peak oil
- \in Pressure from business/industry and their concerns about future fuel shortages
- € Internal political adgenda
- ∈ Other (please specify)

Information about peak oil (a)

- * 25. Do you think your organisation has adequate information about peak oil to make effective transport policy decisions?
 - jn Yes
 - jn No
 - jn Don't know

Information about peak oil (b)

* 26. What kind of additional information is needed about peak oil to make effective transport policy decisions? (Choose one or more)

 \in Information about the possibility and likelihood of fuel supply shortages occurring (when it could occur, how big the shortage would be)

 $_{\mbox{\footnotesize E}}$ Information about the potential risks and impacts of a long term fuel supply shortage (on public, businesses etc)

€ Information about how to prepare for and respond to the risks and impacts of a long term fuel supply shortage (e.g. potential policy options)

∈ Other (please specify)

Information about peak oil (b)

- * 27. Who do you think should supply more information to your organisation about peak oil? (Choose one or more)
 - € Academic researchers (e.g. University professors)
 - External consultants
 - e Central Government
 - Environmental/Community groups
 - ∈ Council technical staff
 - e Oil industry
 - Professional groups (e.g. IPENZ)
 - e Other (please specify)

Thank you

Thank you very much for your participation, your time is greatly appreciated.

If you have any further comments about the topics or questions in the questionnaire please use the box below, or contact me:

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28. Please feel free to make any additional comments about any of the topics or questions above.