

# **Public perceptions of New Zealand's environment**

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# Outline

- The rationale for the research:
  - Pressure-State-Response framework
  - Absence of national environmental indicators
- Four biennial public surveys completed
- Selected results from the national perceptions survey
- Contributions of the research programme

# Rationale

- State of the environment (SOE) important issue for citizens
- Governments need information on SOE, trends, to justify expenditures, policies
- Information often lacking on SOE - very patchy in NZ with no long running set of biophysical indicators
- Pressure-State-Response (PSR) framework used worldwide as a reporting tool on SOE
- We wanted to track citizen perceptions of SOE, using PSR, as a barometer of public interest and to complement the (virtually non existent) integrated biophysical monitoring that should be taking place

# The biennial perceptions surveys

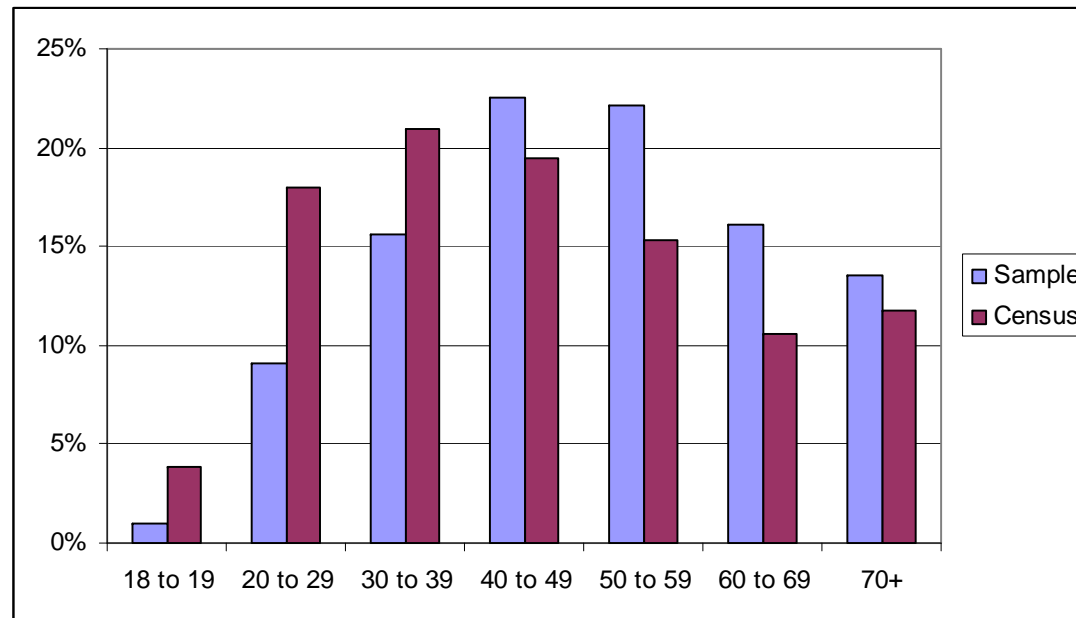
- Postal questionnaire (PSR-based) collects views on perceptions of environment and its management.
- 2,000 people aged 18 and over randomly selected from electoral roll.
- Demographic variables include: age, gender, region, ethnicity, education, and employment sector.
- Regions:
  - 2000-2004, North = north of the Bombay Hills; Central = rest of the NI; Southern = South Island.
  - 2006, 14 Regions
- Ethnicity: NZ European, Maori, Pacific Islander, Asian, & Other.
- Employment sectors: 7 sectors including Resource based (farming, forestry and other primary sectors), and Other.
- Data analysed descriptively and, where applicable, the 2006 survey responses compared with 2004, 2002, 2000 surveys.

# Response Rates and representativeness

- Response rates 2000 - 2006

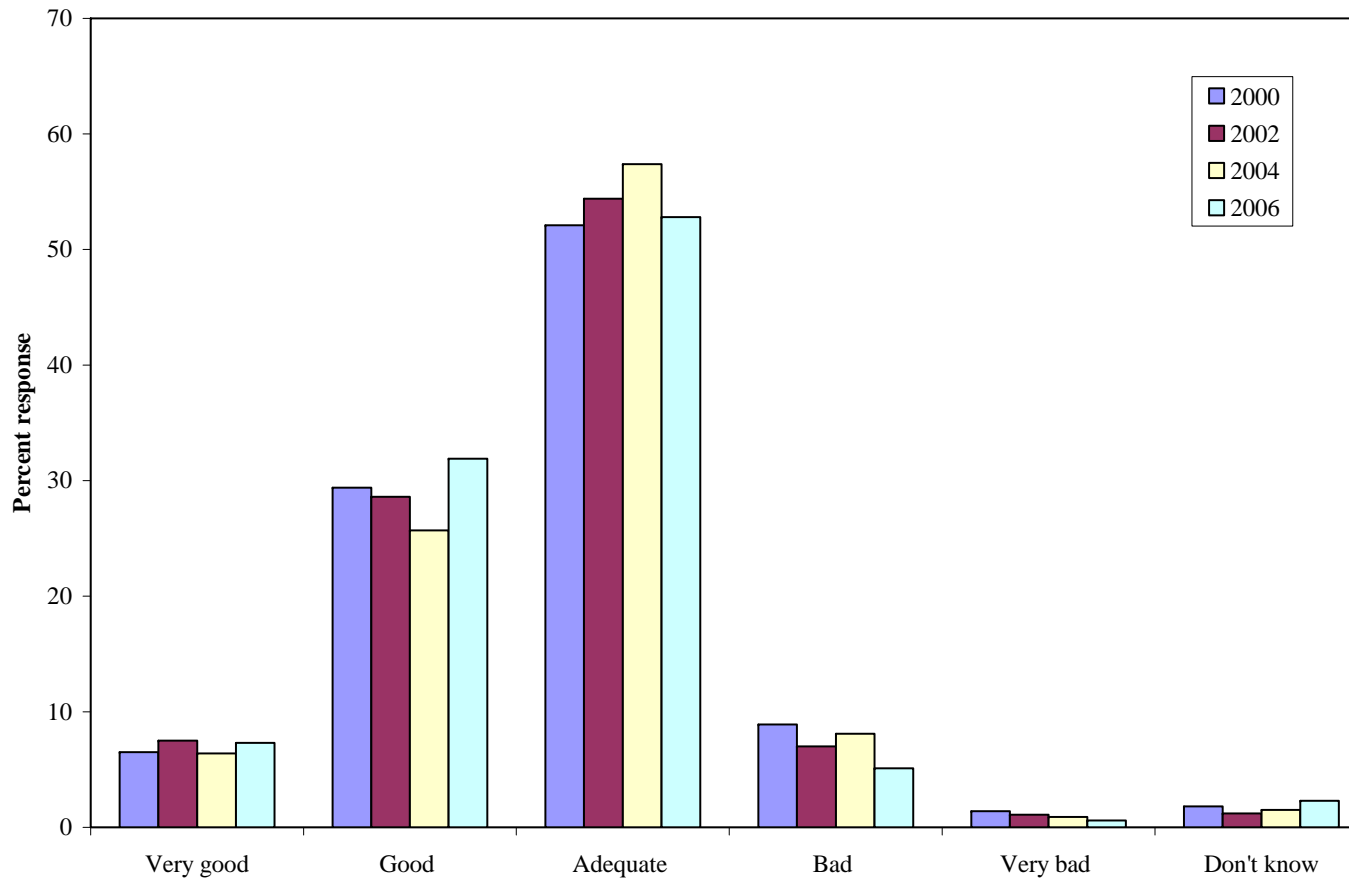
Year	2000	2002	2004	2006
Number analysed	894	836	820	880
Effective response rate (%)	48	45	43	46

- Age comparison of 2004 survey respondents to 2001 census of New Zealanders aged 15 or over

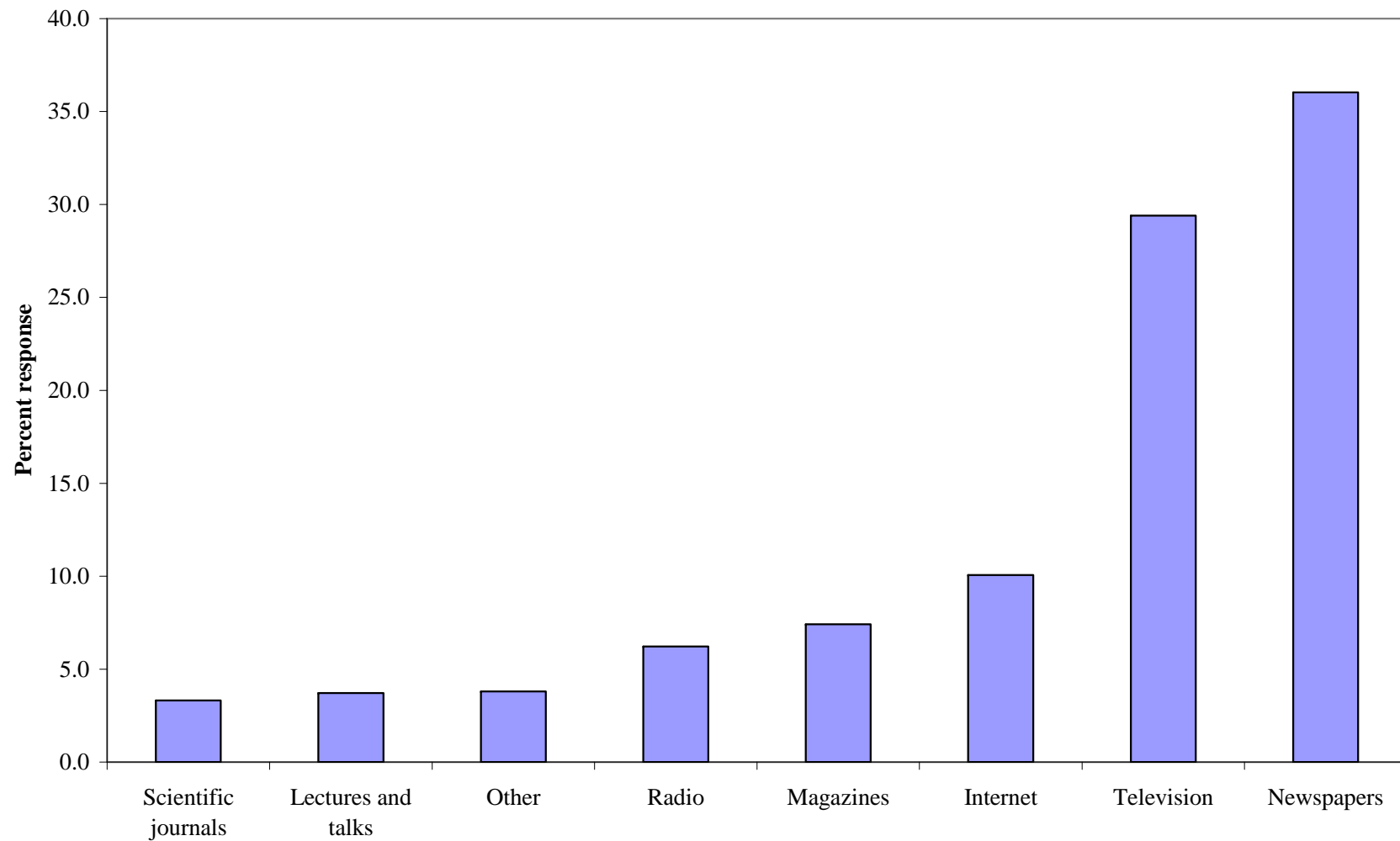


# Respondents' knowledge of environmental issues

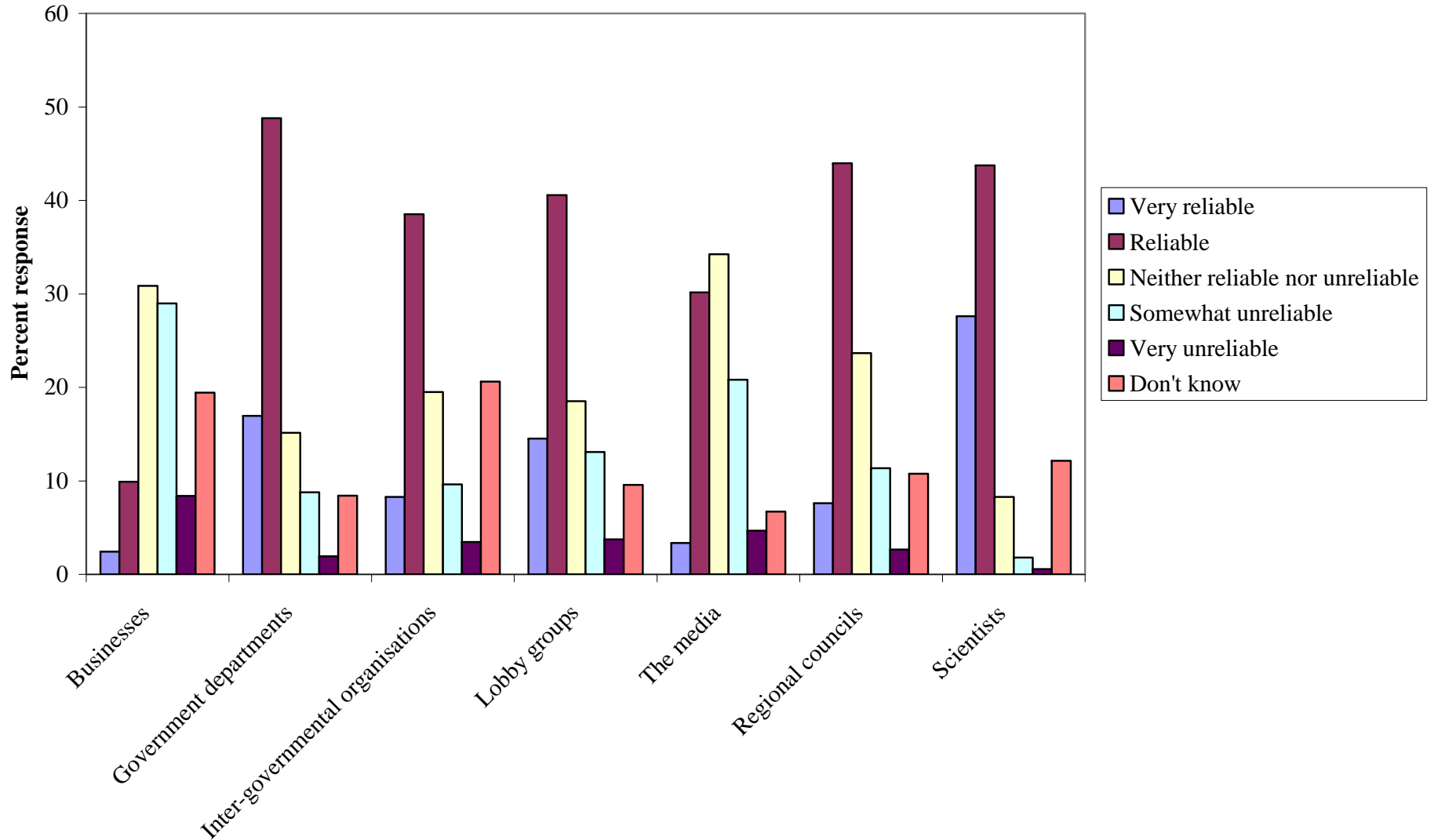
- 90% of respondents rate their knowledge as adequate to very good.



# Sources of environmental information



# Reliability of sources of environmental information

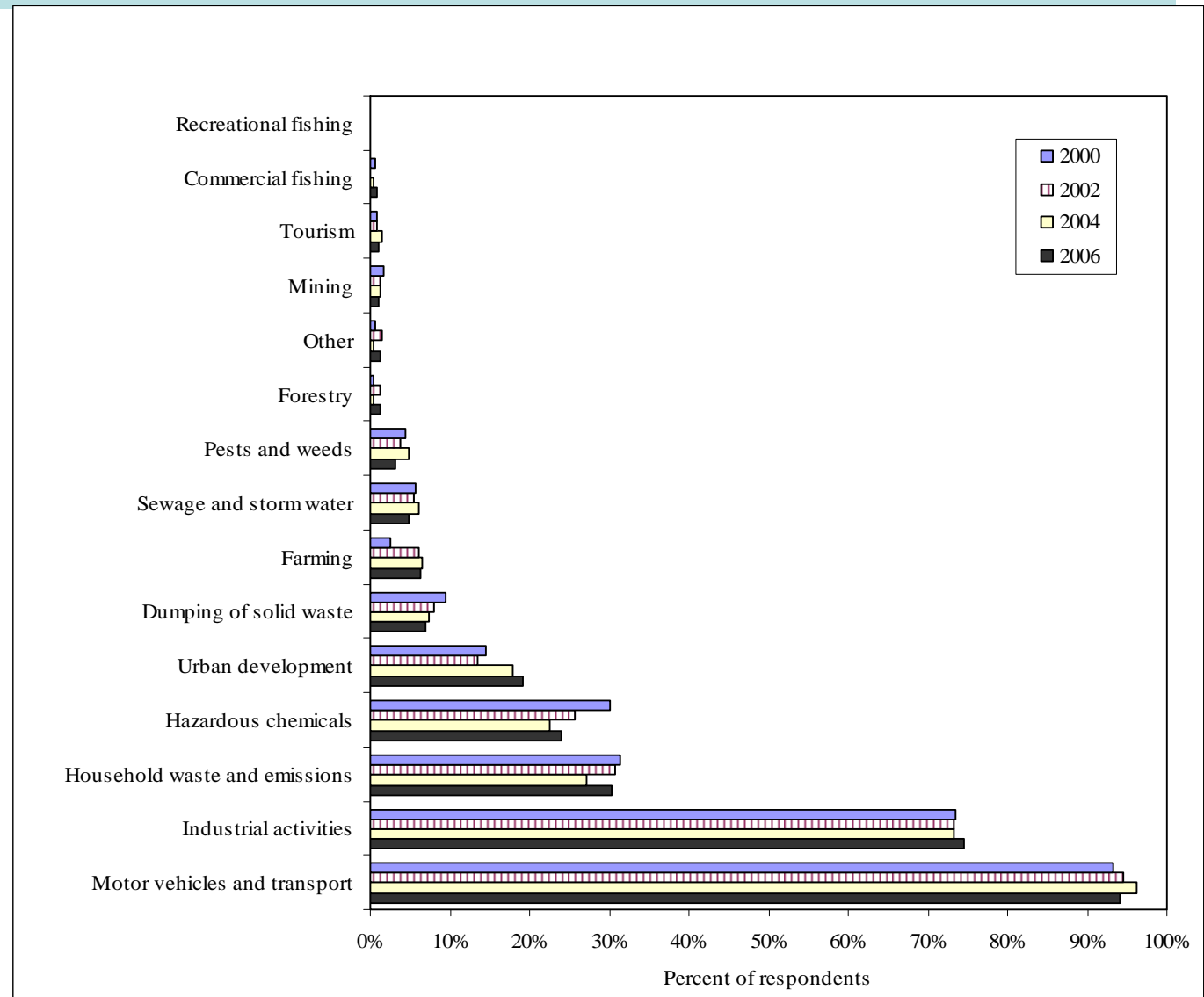




# Perception survey, selected results

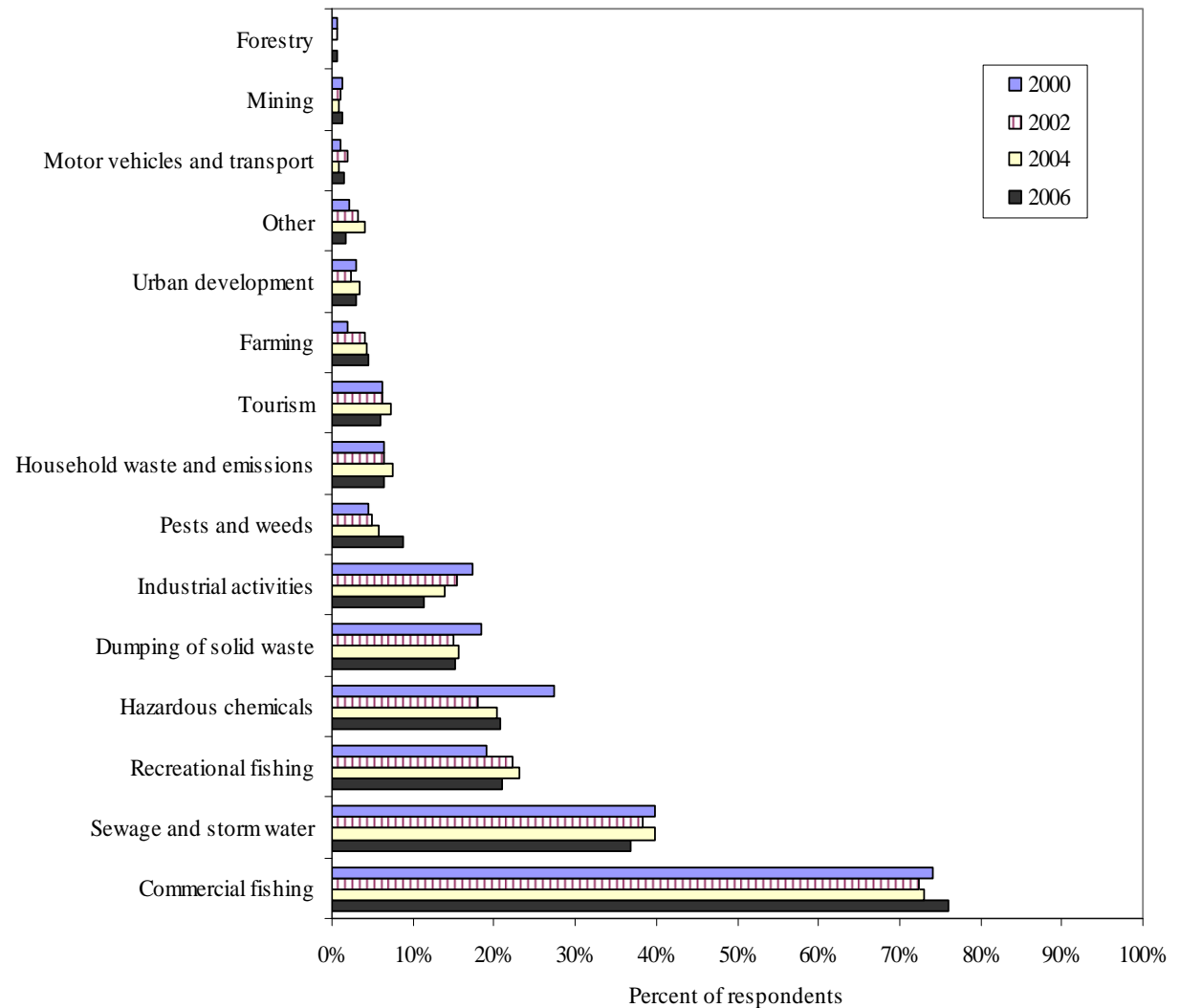
## – *Pressures on Air*

- Respondents select 3 main causes of adverse effects for 11 resource areas (air, soils, fisheries, etc)



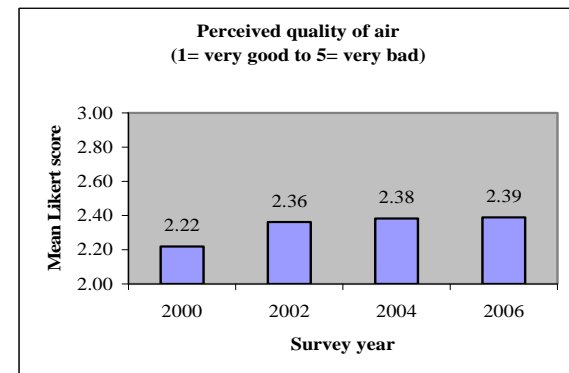
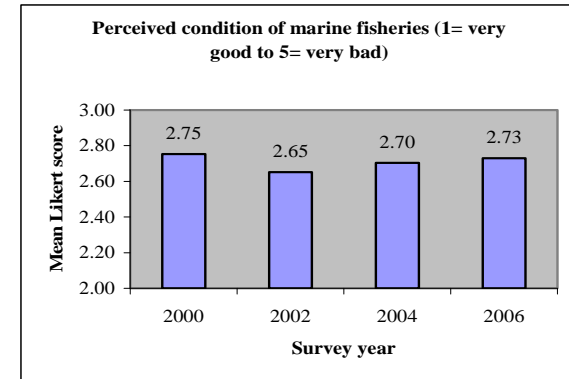
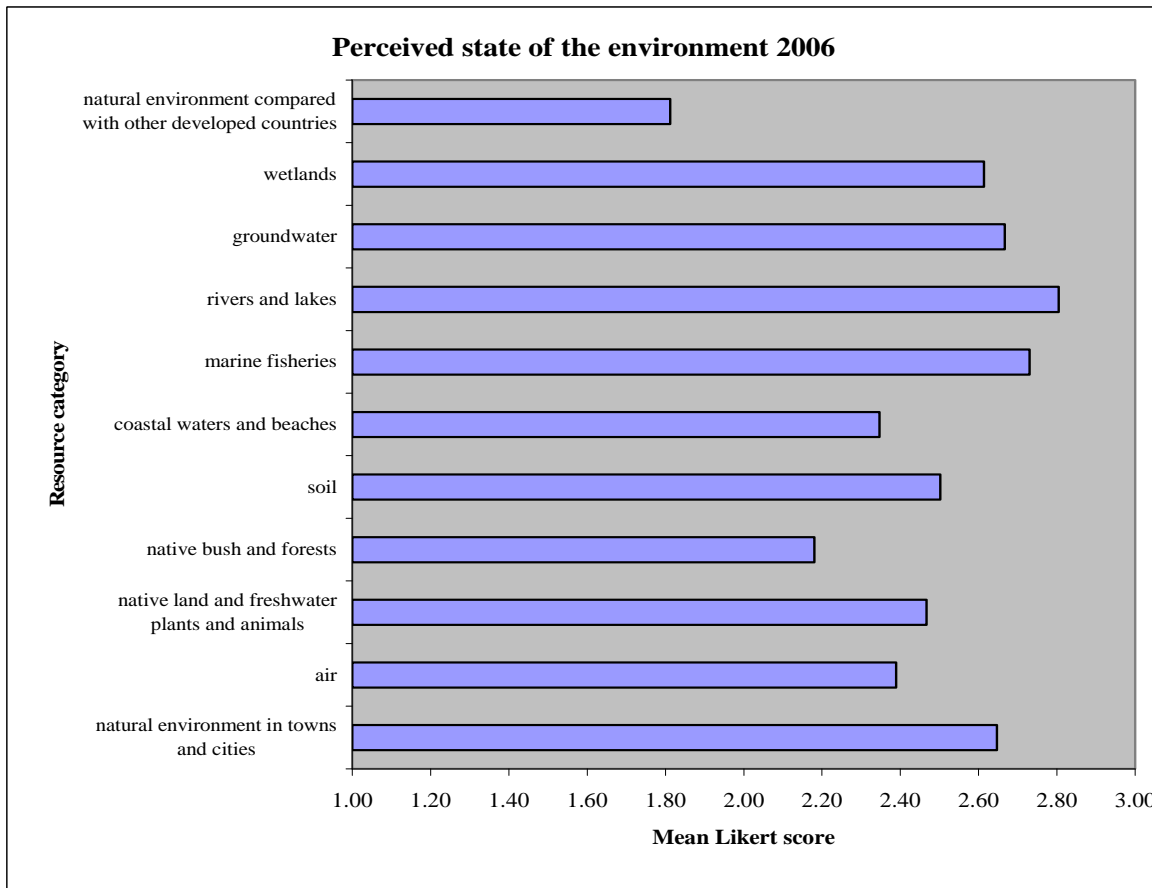
# Pressures on *Marine Fisheries*

- Respondents select 3 main causes of adverse effects for 11 resource areas (marine fisheries, etc)



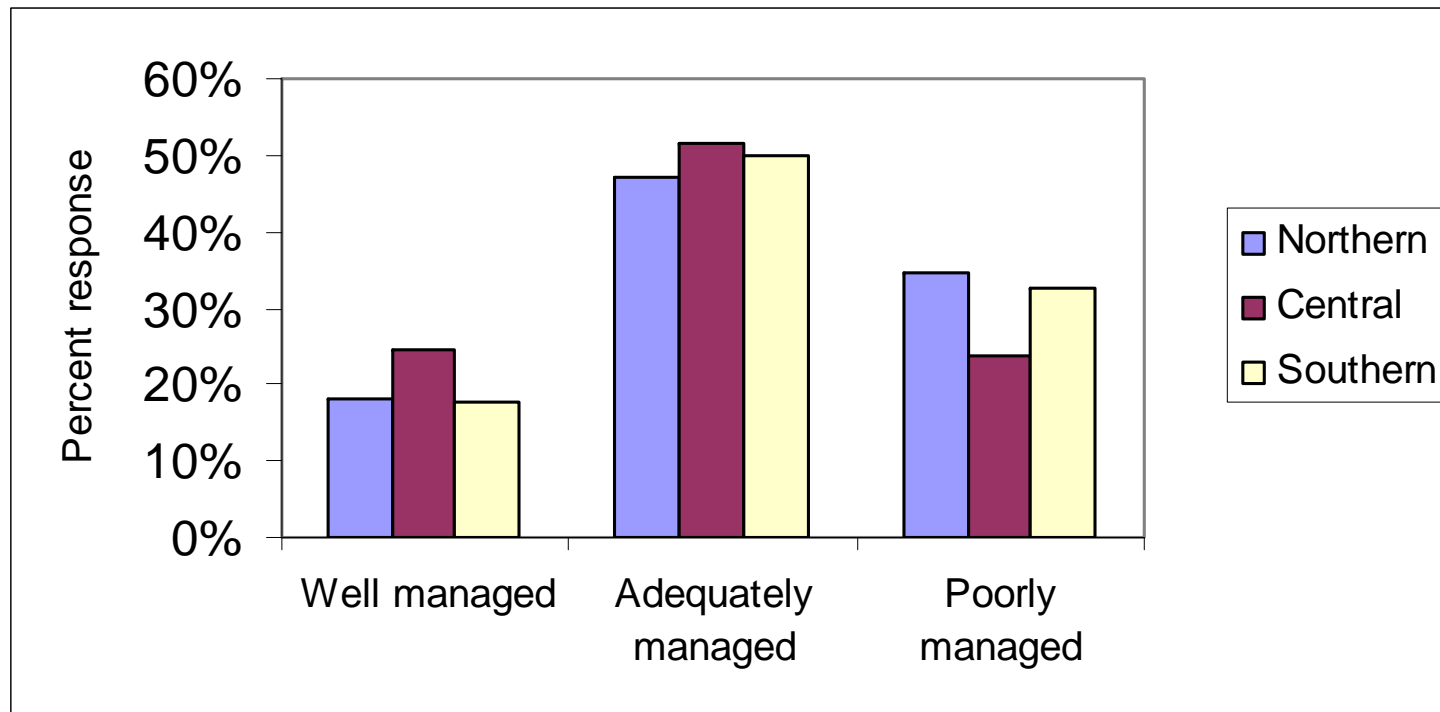
# State of the environment

- Respondents indicate 'quality or condition' of 11 aspects of environment, including *marine fisheries*, *air*



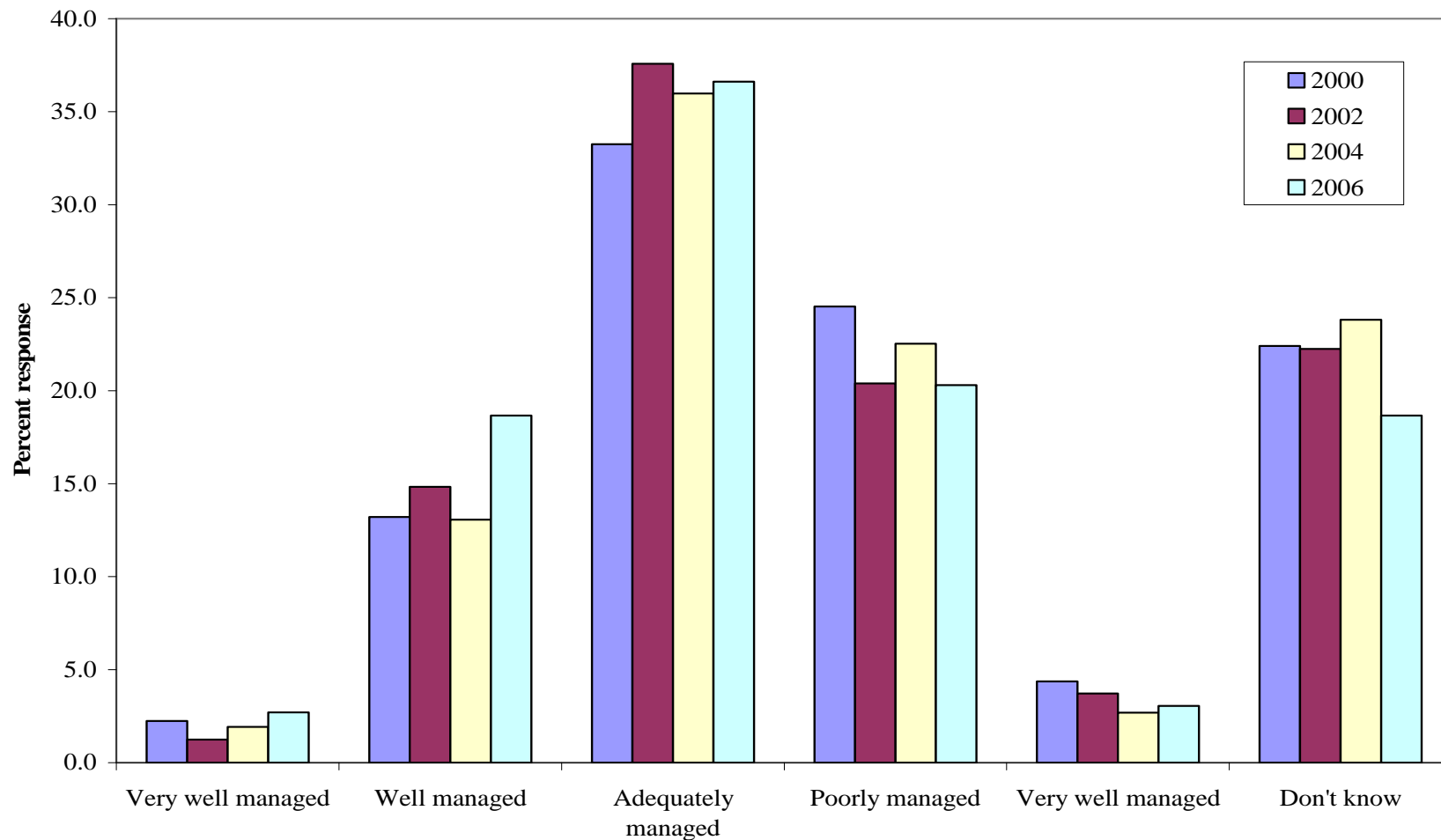
# Response – adequacy of environmental management, Air

- 13 items measured on a five point scale, anchored by very well managed and extremely poorly managed
- 2004, Air management by region



# Response – environmental management, Marine Fisheries

- Marine Fisheries management 2000 – 2006

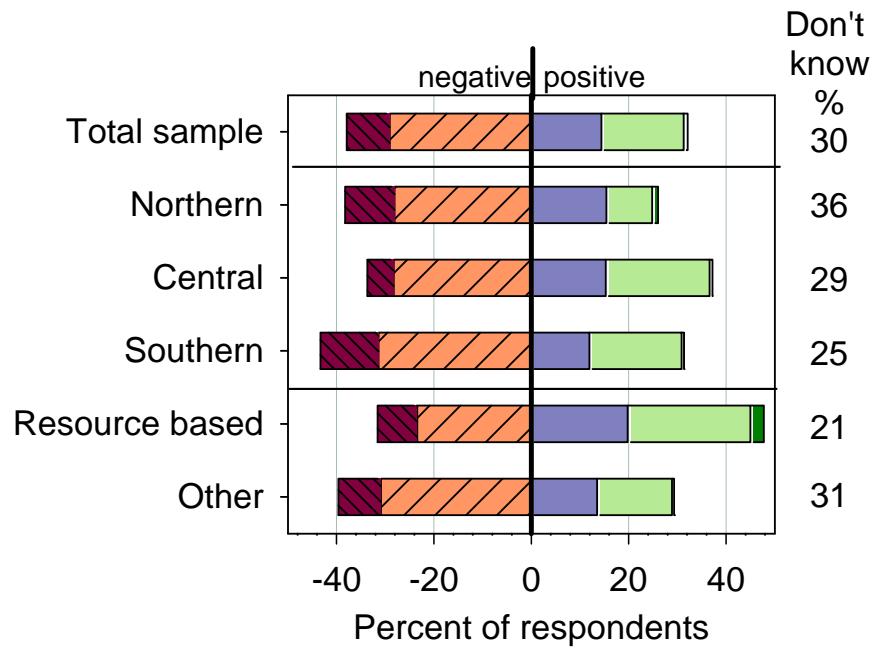


# Focused questions

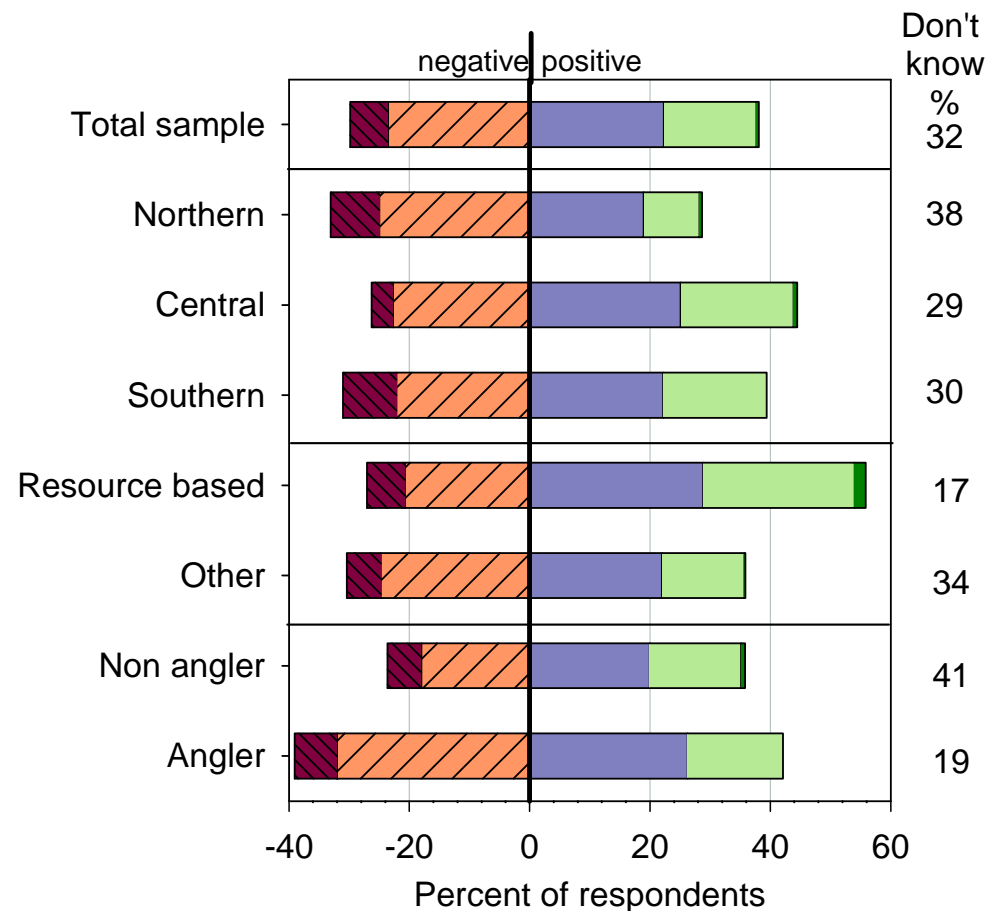
- Each survey asks a set of questions focused on one topic:
  - 2000 natural hazards, and preparedness
  - 2002 coastal management and marine recreational fishing
  - 2004 freshwater management and recreational fishing
  - 2006 land transport and related externalities
- The data is analysed, nationally and in subgroups, e.g. regionally, by ethnic group.
- These analyses provide some key insights.

# 2004 study: Small lowland streams in my region...

... 'have high quality water'



... 'are well managed'



Strongly disagree
  Disagree
  Neither
  Agree
  Strongly agree

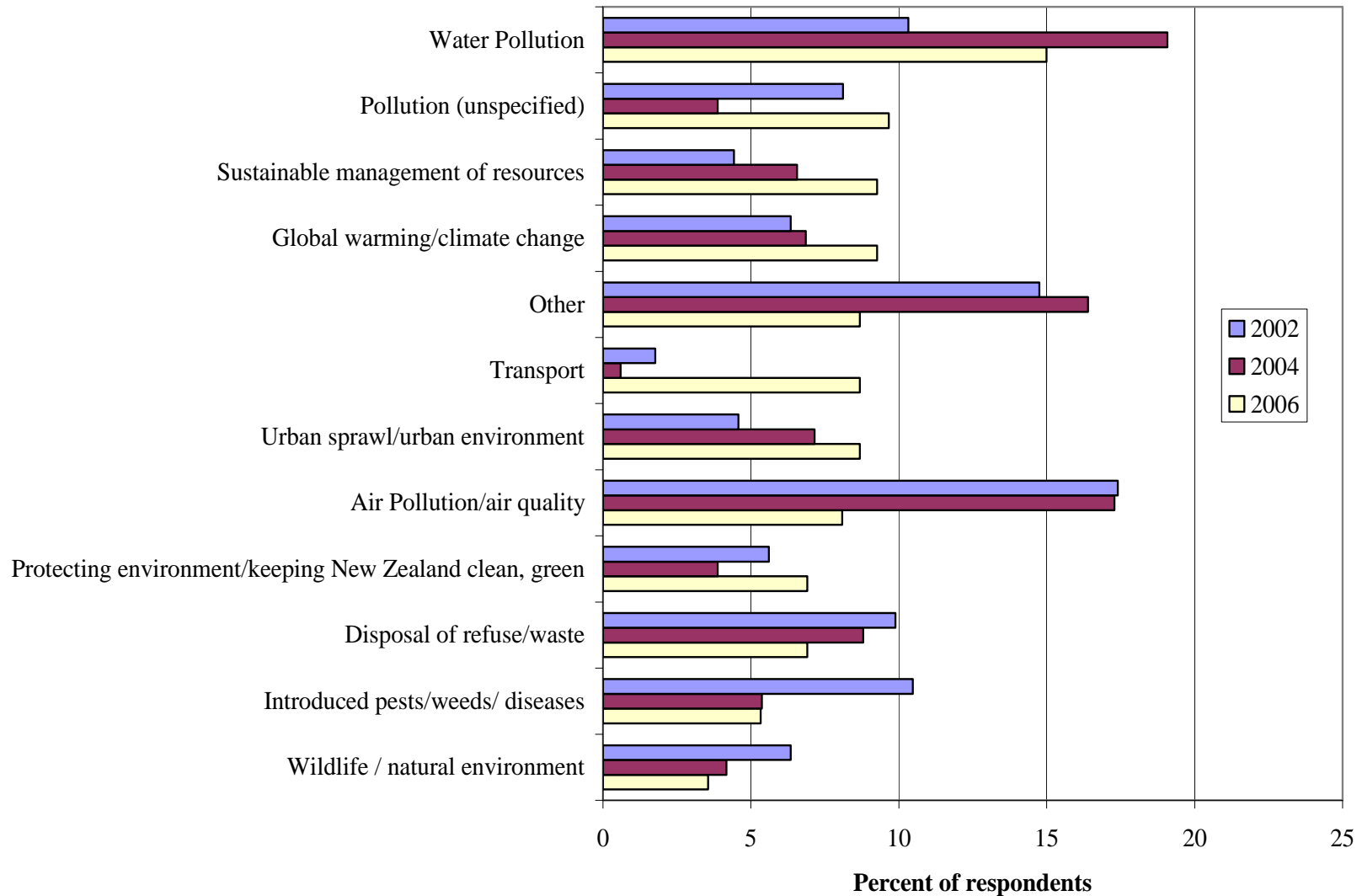
# Main environmental issues

- 2002 - 2006 surveys ask respondents to name the most important environmental issues facing NZ, and world.

<i>Increasing NZ Issue</i>	<i>Decreasing NZ Issue</i>
Water pollution	Air pollution
Sustainable management of resources	Disposal of refuse/waste
Global warming/climate change	Introduced pests/weeds/diseases
Transport	Wildlife/natural environment
Urban sprawl/urban environment	



# Most important environmental issue facing New Zealand: 2002-2006



# Comparisons with biophysical data

- Several publications have examined this issue: Hughey *et al.*, 2001, 2003, 2004a; Hughey *et al.*, 2004b; Cullen *et al.*, 2006
- Public perceptions are often, but not always, well aligned with biophysical data
- Public have good understanding of water quality, pressures on water, and quality of water management
- Public perception of state of native plants and animals is sharply out of line with reality – a matter of political ‘spin’
- Esty *et al.* 2005, developed the global Environmental Sustainability Index (ESI) and evaluate biodiversity as by far the lowest rated New Zealand environmental indicator

# Contributions of the research programme

- A consistently reliable method of reporting on perceptions of the state of the New Zealand environment, built around the OECD Pressure, State and Response model has been developed;
- The survey instrument is cost-effective to implement;
- Although the survey is not fully representative, the high response rate and low margins of error indicate a high level of reliability in the results reported;
- There is generally a good correlation between perceptions and biophysical scientific representations of the resources examined;
- The findings provide a barometer of public concerns related to the environment; ...

# Contributions of the research programme...

- A range of demographic variables, including ethnicity and regional analyses are proving very insightful;
- The ongoing surveys now represent the longest running set of fully integrated national level state of the environment reporting data in New Zealand, and the only data set of its type in the world;
- Trends in responses are being tracked across the four surveys and provide a means to quickly detect temporal change in perceived pressures, states, and management quality.
- The specific case studies provide an opportunity to examine contemporary issues from broad environmental policy and economic perspectives; and
- There is growing interest from the media, other researchers and from local and central government in the research and its findings.

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