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# SCIENCE SYSTEM ADVISORY GROUP

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TITLE	Information on research spend by other government agencies		
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PURPOSE	To provide information on research spending by other central government agencies.		

## Information on research spend by other government agencies

- 1 This paper provides high-level information on the research and development (R&D) funding of government agencies other than MBIE. We estimate this to be around \$500 million per year, compared to MBIE's R&D funding of around \$1.3 billion per year.
- 2 Major funders (> \$100 million per year) include the Ministry of Education and the Ministry of Primary Industries. A wide variety of agencies are responsible for smaller R&D funds (\$10 – 100 million per year). MBIE does not have good visibility of agencies that fund R&D at lower levels than this.
- 3 Agencies fund R&D in the sectors they are aligned to (eg Ministry of Education and Higher Education, Ministry of Primary Industries and the primary sector), or to support their own research needs.

### **OVERVIEW OF AGENCY RESEARCH FUNDING AND ACTIVITIES**

- 4 MBIE does not have a complete picture of government-wide R&D spending. It is working to improve its data collection processes and establish a standard methodology to achieve better consistency. Ideally, MBIE should be able to identify all Government Budgeted Allocation for Research and Development (GBARD) by vote and agency but this is not currently the case.
- 5 The information presented here estimates research funding from other government agencies that make up part of GBARD. It is a mix of information from Budget appropriations and what we know from surveying agencies.
- 6 This section provides qualitative and quantitative information on R&D funding across government that MBIE is aware of. This is unlikely to be a full account of all government R&D funding but will capture all significant spending (at or above approx. \$10 million).
- 7 Some of this activity is captured by appropriation-level information (as summarized below in Table 1). In other cases, because funding is spread across multiple appropriations or is a small component of a much larger appropriation. Where appropriations are not a good guide, we have provided the best estimate of funding we have available, typically estimated by the responsible department.

#### ***Ministry for Education***

- 8 The Ministry of Education (MoE) is a significant funder of research in the Higher Education sector, and is responsible for the second largest source of government R&D funding after MBIE. The majority of this funding is in the form of general university funding, and is not targeted towards specific outcomes or the Ministry's own research needs.
- 9 The single largest source of research-related funding for universities is the Performance-Based Research Funding (\$315 million a year). While the PBRF may support research activity in universities, it is not required to be used only for research. Individual organisations have a large degree of discretion over how their PBRF funding is used.
- 10 There is a high degree of cross-subsidisation between research and teaching activities in universities but, in practice, the quantum of research expenditure in the Higher Education sector that is funded by the MoE is approximately equal to the value of the PBRF.

- 11 The Ministry of Education also supports research in the higher education sector through several smaller funds, most notably the Centres of Research Excellence (CoRE) fund. Unlike the PBRF, these funds can only be used for research.

***Ministry for Primary Industries***

- 12 MPI has significant in-house research capability and is the third largest funder of research activity across government (after MBIE and the Ministry of Education). The extent of their investment in R&D is fully reflected in the appropriations information in the table above.

***Ministry of Social Development***

- 13 MSD's research and evaluation team generates and shares evidence that influences the design and development of the Ministry's programmes and services. Their researchers partner with policy and service delivery teams within the Ministry, collaborate across government and work with the wider research community. MSD uses these research insights to improve its policy and practice research insights to enhance the wellbeing of people and their families, whānau and communities. The latest survey for the 2021/2022 financial year identified \$8.3 million spent on research.

- 14 MSD's main research areas are:

- Growing Up in New Zealand
- Families and whanau wellbeing
- Supporting people with health conditions and disabilities
- Supporting people into work
- Family and sexual violence initiatives
- Understanding poverty and the welfare system.

***Department of Conservation and Ministry for the Environment***

- 15 DOC's funding for science and evidence is part of a pilot established in Budget 2022 where agencies hold separate appropriations but have a shared funding arrangement to work towards common priorities. The three Natural Resources Cluster (NRC) agencies are DOC, the Ministry for the Environment, and the Ministry for Primary Industries.

- 16 The Science and Evidence cross-cutting priority in the Budget 2023 Estimates is set out below:

"The NRC will use high-quality scientific evidence and expert advice to inform decision making. It will continue to fund, use, and generate science and research across the natural resources sector and apply it to the development, implementation, and evaluation of new initiatives. The Environment and Climate Research Strategy is being jointly developed by the NRC agencies, which will provide direction on prioritisation of investment in improving and increasing environmental research and data."

- 17 The best published information we have on DOC research funding is from the 2020 report by the Parliamentary Commissioner for the Environment (PCE) *A review of the funding and prioritisation of environmental research in New Zealand*<sup>1</sup>. It reports that DOC estimates that it spent \$27 million on environmental research in the 2019/20 financial year. Around one third of this was spent on pest and disease control (32 per cent), and just over one third on flora, fauna and biodiversity (36 per cent). Ecosystem management and rehabilitation is the largest of the remaining categories and has increased in volume in recent years.

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<sup>1</sup> <https://pce.parliament.nz/media/ih0psxan/report-environmental-research-funding-review-pdf-32mb.pdf>

18 The same report provides the following set of information for the Ministry for the Environment (MfE):

- During the last five years (2015–2020), MfE spent an average of \$4.8 million a year on environmental science.
- Over the last ten years, MfE’s environmental science spending increased from around \$3 million to over \$7 million. The Ministry’s science investment is with CRIs, DOC and private providers, essentially to develop and improve policy advice.
- In 2019/20, MfE spent \$6 million using PCE report’s narrow definition of environmental science which increases to \$7 million using PCE’s broad definition on environmental research.

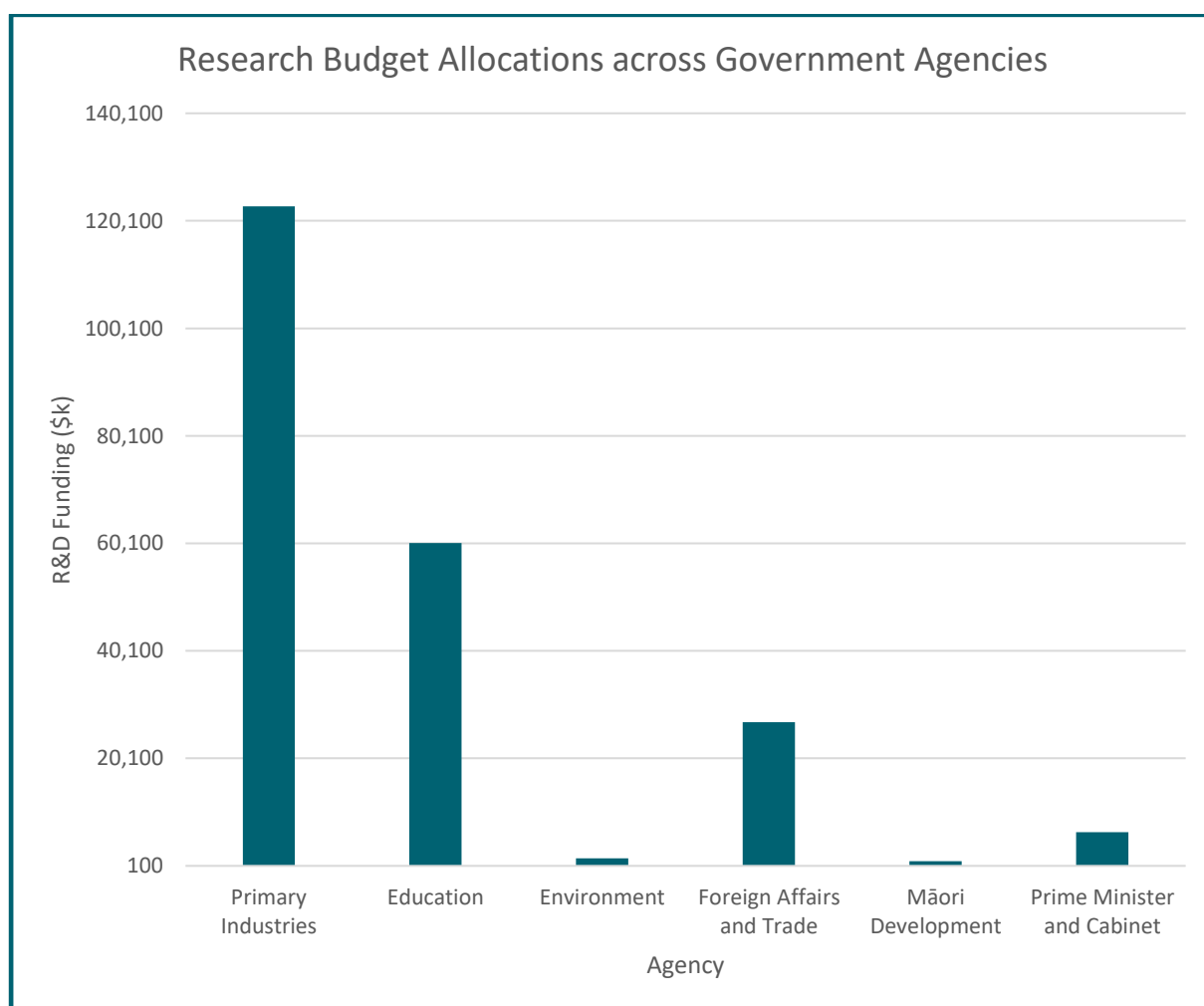
#### ***New Zealand Defence Force***

# National security or defence

#### ***MBIE manages the largest proportion of publicly funded research***

20 The following figure combines all the Budget appropriations information we have across agencies. Note that the MBIE and RDTI bars represent research funding for Science, Innovation and Technology.

Figure 1: Research Budget Allocations across Government Agencies



**APPROPRIATIONS PROVIDE A PARTIAL PICTURE OF GOVERNMENT FUNDING FOR R&D**

- 21 Table 1 provides Budget appropriations allocated for the financial years 2023/24 and 2024/25 that MBIE has identified as entirely or primarily supporting research. The total funding identified here is \$200-250 million per year, however this is likely a lower limit on non-MBIE government R&D funding.
- 22 Funding has been mostly stable over the last three to four years. We expect there will be changes in appropriations as part of Budget 2024 as the new Government reflects its priorities and finds savings. We have not yet confirmed 2023 research spend with agencies.
- 23 Not all of the budget allocation is spent on research. For example, we know that MPI's Sustainable Food and Fibre Futures (SFFF) fund's total appropriation in 2022 was \$73 million. MPI advised that not all of this is R&D (only about 40 per cent), with the remainder going to related innovation activities.

## BUDGET APPROPRIATIONS THAT ARE ENTIRELY OR PRIMARILY R&amp;D FUNDING

GBARD - Government Budget Allocation to Research and Development			
Department/Ministry	Portfolios other than MBIE	2023/24 \$m	2024/25 \$m
Primary Industries	Sustainable Food and Fibre Futures	67,777	67,777
	New Zealand Agricultural Greenhouse Gas Research	10,600	10,600
	Global Research Alliance on Agricultural Greenhouse Gases	9,216	9,216
	Agriculture Emissions Reduction - Accelerating Development of Greenhouse Gas Mitigations	32,383	61,868
	Increasing Woody Biomass Supply to Replace Coal and other Carbon Intensive Fuels and Materials	2,789	4,922
	<b>Total for Primary Industries</b>	<b>122,765</b>	<b>154,382</b>
Education	Wananga Research Capability Fund	6,000	6,000
	Centres of Research Excellence	49,800	49,800
	University-led Innovation	4,359	4,359
	<b>Total for Education</b>	<b>60,159</b>	<b>60,159</b>
Environment	Water science and economics	1,500	1,500
Foreign Affairs and Trade	Antarctic Research and Support	26,820	26,820
Māori Development	Māori Innovation Fund	1,000	1,000
Prime Minister and Cabinet	Prime Minister's Chief Science Advisor Research Programme	6,370	6,370
<b>TOTAL GBARD from portfolios other than MBIE</b>		<b>218,614</b>	<b>250,231</b>