



BRIEFING

Budget 2024 - Options for Geohazards Budget bid

Date:	9 February 2024	Priority:	High
Security classification:	Budget - Sensitive	Tracking number:	2324-1936

Action sought		
	Action sought	Deadline
Hon Mark Mitchell Minister of Emergency Management and Recovery	Agree that MBIE will submit a budget bid to seek funding to <ul style="list-style-type: none"> - Sustain current GeoNet services Confidential advice to Government - Maintain an ongoing NSHM programme Confidential advice to Government 	13 February 2024

Contact for telephone discussion (if required)			
Name	Position	Telephone	1st contact
Robyn Henderson	Acting General Manager, Science Innovation and International	Privacy of natural persons	
Privacy of natural persons	Policy Director, Science Innovation and International		✓
	Principal Policy Advisor, Science Policy		

The following departments/agencies have been consulted

National Emergency Management Agency (NEMA), Land Information New Zealand (LINZ), Toka Tū Ake/Earthquake Commission (TTA/EQC).
We have also sought input from GNS Science, MetService and the Department of Conservation

Minister's office to complete:

- | | |
|---|--|
| <input type="checkbox"/> Approved | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Noted | <input type="checkbox"/> Needs change |
| <input type="checkbox"/> Seen | <input type="checkbox"/> Overtaken by Events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn |

Comments



BRIEFING

Budget 2024 - Options for Geohazards Budget bid

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Purpose

To outline funding options for GeoNet and the National Seismic Hazard Model to be considered in Budget 2024.

Executive summary

In December we briefed you on funding issues for GeoNet and the National Seismic Hazard Model (NSHM), operated by GNS Science, a Crown Research Institute. The Minister of Finance has invited MBIE to submit a budget bid for Geohazards funding which is an opportunity to address the funding shortfalls for 2024/25 and future years.

You also requested “joint advice from MBIE and NEMA that outlines the full suite of options available for long-term sustainable funding, including enduring portfolio responsibility” and “Confidential advice to G
Confidential advice to Government Agencies are working together to develop separate advice on this and how agencies will work together to manage the Crown’s investment in GeoNet and the NSHM in the long-term.

This advice focuses on the **funding options** to be presented in Budget 2024: the scale and scope of the funding needed, **Confidential advice to Government**

Proposed options for GeoNet funding

For GeoNet, we recommend seeking long-term baselined funding to **sustain** GeoNet’s current services, **Confidential advice to Government**
This option requires **Confidential advice to Government**

We have identified no new sources of funding for GeoNet. Partner agencies have no additional available funding. There are no immediate opportunities to increase contributions to GeoNet via fees or levies.

Proposed options for NSHM funding

Agencies recommend seeking long-term baseline funding to maintain an ongoing NSHM programme, **Confidential advice to Government** This will require **Confidential advice to Government**

Confidential advice to Government

Recommended action

The Ministry of Business, Innovation and Employment recommends that you:

- a. **Agree** that MBIE officials will prepare a budget bid that outlines
- a. the preferred option to sustain GeoNet services at current levels Confidential advice to Government
Confidential advice to Government *Agree / Disagree*
 - b. the preferred option to maintain the ongoing NSHM programme Confidential advice to Government
Confidential advice to Government *Agree / Disagree*



Robyn Henderson
Acting General Manager,
Science Innovation and International
Labour Science and Enterprise, MBIE

09/02/2024

Hon Mark Mitchell
Minister for Emergency Management
and Recovery
..... / /

Background

1. The Minister for Emergency Management and Recovery is responsible for short-term funding for GeoNet and the National Seismic Hazard Model (NSHM), two platforms led by GNS Science.
2. GeoNet and the NSHM provide information to support an evidence-based approach to managing New Zealand's considerable geohazard risks.
 - a. GeoNet is New Zealand's seismic, volcano, tsunami, and landslide monitoring network. At its core is a sensor network and a data infrastructure that underpin a variety of products and services that deliver information to assist with New Zealand's geohazards management. This includes the popular GeoNet phone app. GeoNet also provides information to global location systems.
 - b. The NSHM is a scientific model that estimates ground shaking at any one location in New Zealand and is the basis for our understanding of seismic risk. It is used by building and infrastructure managers, and the insurance industry.
3. In December 2023, MBIE briefed you on the ongoing funding issues for GeoNet and the NSHM. Without new funding, neither GeoNet nor the NSHM will be able to operate at current levels beyond 30 June 2024. (Briefing 2314-1028 refers).
4. In December, the Minister of Finance invited MBIE to submit a bid for Geohazards funding for Budget 2024, due 16 February. (Minister of Finance letter to Associate Minister of Finance 22 December 2023.)
5. You requested "joint advice from MBIE and NEMA that outlines the full suite of options available for long-term sustainable funding, including enduring portfolio responsibility" and Confidential advice to Government (Minister Mitchell Letter to Carolyn Tremain 21 December 2023.)
6. This briefing focuses on the **funding** options to be submitted for consideration in the Budget process. This includes the scope and scale of the preferred and scaled funding options, Confidential advice to Government
7. Given the timeframes for the budget process we were not able to secure joint MBIE/NEMA sign out for this paper, but we note that all partner agencies have had an opportunity to comment on drafts of this paper.
8. In March NEMA and MBIE will provide you joint advice that outlines options for enduring portfolio responsibility, and the process required to put appropriate arrangements in place. This advice will cover options to manage the funding to be sought through Budget 2024.

Context and approach to the Budget bid

Budget 2024

In line with the Government's strategy for Budget 2024, the bid will concentrate on value for money by exploring minimum service levels Confidential advice to Government

9. Budget 2024 is taking place in a challenging fiscal and economic environment, and has a strong focus on fiscal discipline and value for money in both the short and longer term, including by finding reprioritisation, savings, and revenue measures.
10. Geohazards is one of only a small number of areas where the Minister of Finance has invited a bid for new spending, noting that existing funding is time-limited, and Confidential advice to Government

Treasury has emphasised that the bid should focus on the minimum viable service.

Ongoing Crown funding is required to minimise future risks

11. In the new Government's December mini-Budget, the Minister of Finance noted that the Geohazards platforms were an example of a funding cliff, where funding had been provided for only a short time, even while there was a public expectation that the programmes would continue.¹ Annex One contains a summary of past GeoNet and NSHM funding.

MBIE has worked with GNS Science over recent months, with input from partner agencies, to develop funding options.

12. We have developed options for the scope and scale of the GeoNet and NSHM programmes
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13. All options:
 - seek long-term baselined funding. This will allow GNS and agencies to plan and manage GeoNet and NSHM programmes and core expertise over the medium and longer term. This includes managing the multi-year investments in the capital and IT components of GeoNet, and
 - allow GNS to move to a full cost funding model over the four-year period, allowing it to remain financially viable, as expected by shareholding Ministers, and required by legislation.²
14. The bid will also seek the departmental funding required to support agencies to manage the investment in GeoNet or the NSHM.

Options for GeoNet

Scale and Scope of GeoNet funding

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15. GeoNet funding options are outlined in Table 1 below, with more detail in Annex Two.
16. Options take into account existing funding of \$11 million per annum from partner agencies. (MBIE \$6 million, Toka Tū Ake/Earthquake Commission \$4 million, Land Information New Zealand (LINZ) \$1 million).
17. Options were considered in the context of the new, near final GeoNet Strategic Plan, developed by GNS with agency input. The agreed strategic direction for GeoNet is "An open, adaptive, automated GeoNet, built on a stable and sustained core system."
18. We applied the following considerations when assessing the new funding options:
 - Maintain the core of GeoNet, that is the sensor network, IT infrastructure, the open data model and science expertise, which underpin all information products.
 - Consider opportunities to adapt and automate to keep pace with changing technology and science, accounting for transitions, and lead times required to upgrade technologies or develop new capabilities.

¹ www.beehive.govt.nz/release/strengthening-fiscal-responsibility-rules

² [Section 5 \(3\) of the CRI Act 1992](#)


19. Confidential advice to Government 
20. If further scaling is required, agencies support the maintain option which is the minimum to avoid degradation of the system.
21. Note that we did not identify any optional or low value components of existing GeoNet products and services that could be cut.

Table 1: Summary of baselined funding options for GeoNet

Option and description	Agencies' assessment of the option	Opex over 4 years *
<p>Confidential advice to Government</p>	<p>Confidential advice to Government</p>	<p>Confidential advice to Govern</p>
<p>Confidential advice to Government</p>	<p>Confidential advice to Government</p>	<p>Confidential advice to Governm</p>
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Option and description	Agencies' assessment of the option	Opex over 4 years *
<p>Confidential advice to Government</p>	<p>Confidential advice to Government</p>	<p>Confidential advice to Government</p>

* Figures are the amount to be sought via Budget and exclude existing funding of \$11 million per annum. Numbers subject to change

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Sources of GeoNet funding

22. Treasury asked us to consider options to reduce the draw on central funding through Budget 2024. Confidential advice to Government See Annex One for more detail of previous funding for GeoNet.

Confidential advice to Government

23. All savings and reprioritisation opportunities are being considered as part of the Budget baseline review processes. Agencies note the following:
- Confidential advice to Government
 - MBIE already contributes \$6 million to GeoNet via the Science, Innovation and Technology portfolio. All opportunities to make savings with MBIE baselines are being considered through the MBIE baseline review.
 - Land Information New Zealand (LINZ) procures two services directly from GeoNet, which are 75% Crown funded (\$750,000). Tsunami gauges are procured through \$500,000 of Crown funding, paid directly to GeoNet. LINZ also procures a network of receivers, which are 50% Crown funded (\$250,000). Confidential advice to Government
24. The Department of Conservation (DoC) provides \$35,000 for the Ruapehu Eruption Advisory. At the time of preparing this briefing, Confidential advice to Government

Confidential advice to Government

25. Users currently make contributions to GeoNet via the following mechanisms
- Toka Tū Ake/Earthquake Commission's long-term contribution to GeoNet is derived from the insurance levy (\$4 million in 2023/24).
 - A small amount of the services LINZ procures are fee-funded (25% of LINZ funding, \$250,000).
 - The Aviation industry contributes to the Volcanic Ash Advisory service via an arrangement with MetService (\$135,000 in 2023/24).

26. Confidential advice to Government

27. Confidential advice to Government

Options for the NSHM

Scale and Scope of the NSHM programme

28. MBIE has worked with GNS and Toka Tū Ake to determine the funding options for the National Seismic Hazard Model. Toka Tū Ake and MBIE building performance are the main

government users of the model. The model is an important input into building regulations, and supports insurance and reinsurance.

MBIE and TTA/EQC recommend seeking funding for an ongoing work programme

29. Future funding for the NSHM needs to

- Confidential advice to Government
-

30. MBIE and Toka Tū Ake are of the view that an ongoing science programme needs to be maintained. In recent years, investment in the NSHM has risen to support accelerated work for the updated model released in 2022. Agencies do not support any further expansion to the NSHM programme at this point.

31. The proposed baselined funding options for the NSHM are as therefore follows:

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32. Confidential advice to Government

Sources of NSHM funding

Confidential advice to Government

33. Confidential advice to Government

34. Confidential advice to Government

35. Confidential advice to Government

36. Confidential advice to Government

Next steps

37. MBIE will submit a budget bid on February 16, for consideration in the Budget 2024 process.
38. MBIE and NEMA will continue to work with other agencies to consider the options for enduring portfolio responsibility and the mechanisms by which agencies work together to manage GeoNet and the NSHM in the future.
39. We expect to deliver you joint advice on these options in March, in time to inform Budget financial decisions which detail responsibilities for new funding.

Annexes

Annex One: Past funding for GeoNet and the NSHM

Annex Two: Funding profiles for GeoNet funding options

Annex Three: Funding profiles for NSHM funding options

Annex One: Past funding for GeoNet and the NSHM

Funding source (\$ million)	2020/21	2021/22	2022/23	2023/24
GEONET				
Operating				
MBIE Science Infrastructure (Crown)	6.000	6.000	6.000	6.000
Toka Tū Ake (Insurance levy)	9.781	10.800	10.800	4.000
Land Information New Zealand (title fee plus Crown)	1.000	1.000	1.000	1.000
MetService (Aviation industry fee for Volcanic Ash Advisory)	0.039	0.039	0.056	0.130
Department of Conservation (for Ruapehu Eruption Advisory)	0.035	0.035	0.035	0.035
Subtotal	16.855	17.874	17.891	11.165
<i>Emergency Management and Recovery appropriation: Services for Geohazard Management</i>	-	1.900	4.200	18.700
TOTAL GeoNet Operating	16.855	19.774	22.091	29.865
Capital				
Toka Tū Ake (Insurance levy)	3.986	1.100	1.100	-
<i>Emergency Management and Recovery appropriation: Services for Geohazard Management</i>	-	2.200	3.000	6.700
TOTAL GeoNet Capital	3.986	3.300	4.100	6.700
TOTAL GeoNet	20.841	23.074	26.191	36.565
NATIONAL SEISMIC HAZARD MODEL				
MBIE (Building levy)	2.023	1.700	0.165	-
Toka Tū Ake (Insurance levy)	2.023	1.700	0.165	-
<i>Emergency Management and Recovery appropriation: Services for Geohazard Management</i>	-	-	4.500	6.400
TOTAL NSHM Operating	4.046	3.400	4.830	6.400

Annex Two: Funding profiles for GeoNet funding options

GeoNet Operating \$million	24/25	25/26	26/27	27/28 and outyears	TOTAL over 4 years
<i>Existing</i>	11.00	11.00	11.00	11.00	
New funding under proposed options					
Strengthen	Confidential advice to Government				
Sustain					
Maintain					
Degrade					

Confidential advice to Government

Confidential advice to Government

Annex Three: Funding profiles for NSHM funding options

NSHM Operating \$ million	24/25	25/26	26/27	27/28 and outyears	TOTAL over 4 years
Maintain		Confidential advice to Government			
Baseline					