INNOVATIVE NZ

Enhancing Hazards Monitoring Capability

Overview

This funding will enable the development of enhanced 24/7 natural hazards monitoring capability to improve New Zealand's resilience and reduce the risk to life from tsunami, volcanoes, earthquakes and other hazards. Objectives for the funding include:

- Increase operational capability to provide time-critical information about natural hazards to inform reduction, readiness, response and recovery.
- Support research and the development of tools that improve hazards models and monitoring capability, including its reliability and resolution.

($m)	2017/18	2018/19	2019/20	2020/21	Total
Existing Funding	-	-	-	-	-
New Funding	3.0	4.5	6.0	6.0	19.5
Total	**3.0**	**4.5**	**6.0**	**6.0**	**19.5**

FAQs

What is the new money for?

The funding is for improved capability to understand and monitor natural hazards, including 24/7 hazards monitoring. The Christchurch and Kaikoura earthquakes highlighted opportunities to further understand New Zealand's dynamic environment and to enhance our natural hazards monitoring and warning capabilities.

In particular, the funding will enhance New Zealand's earthquake, tsunami and volcano monitoring and alerting capability, and develop new models and tools needed to improve the reliability and resolution of hazards warnings. This will include research to understand geological processes and risks, and development of related technologies and networks.

Who will get it?

A Cabinet decision on who will receive the funding will be informed by the outcome of a business case process underway currently, and extensive discussion with science sector, civil

defence and emergency management stakeholders. The likely outcome is investment in research, models, tools, expert staff and the development of operating procedures. Responsibility for delivering this may sit across several organisations.

How is it accessed?

Work is underway, commissioned by GNS Science with support from MBIE, MCDEM, EQC and LINZ, on a business case for longer-term 24/7 natural hazards monitoring capability. An outline business case will be completed in June or July. This will inform options to enhance operational and technical capability.

In December 2016, Government also made $3 million available for short-term enhancements to New Zealand's natural hazards monitoring and alerting capability. Staffing improvements have been made at GNS Science and GeoNet to increase operational capability, and the international tsunami detection buoy network in the Pacific has also been improved. This immediate, practical work improves our ability to detect possible tsunami events and respond quickly.

How does this fit with the National Statement of Science Investment?

This initiative will ensure that world-leading hazards science has a direct impact on New Zealanders' wellbeing. Providing information to members of the public, policy makers, industry and others helps us protect against hazards. We expect a visible and measurable improvement to our ability to detect and communicate hazards information as result of this initiative.

This initiative will also contribute to strengthening international links due to the highly collaborative and internationally relevant science required.

Why this initiative? What impact is expected?

New Zealand and New Zealanders will be better equipped with both long-term and real-time information about natural hazards. This will have benefits for life safety during an event, and inform increased preparedness and better recovery.

When will this work be completed?

Our hazards monitoring capability is constantly being refined in response to new data and new understanding. Since Cabinet's decision in December, GNS Science has already:

- Begun discussions with the US National Oceanic and Atmospheric Administration (NOAA) about collaboration on the tsunami-detection DART buoy network.
- Added or begun recruiting for staff to support better modelling and 24/7 monitoring.
- Done initial scoping work on a long-term approach to delivering enhanced, 24/7 monitoring capability.