

A National risks assessment should include pandemics and other global catastrophes

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Matt Boyd, Ben Payne, Nick Wilson



The Draft NZ National Security Long-term Insights Briefing (LTIB) has recently been produced by the NZ Government. In this blog we discuss its merits and how the process could be further advanced. In particular there is a need to: (i) improve future iterations of the public survey (eg, the next one in February/March 2023); (ii) signal a move towards an integrated and comprehensive National Risks Assessment; and (iii) explicitly articulate the extreme tail risks of each major trend identified in the LTIB (ie, nuclear war, unaligned artificial intelligence, extreme climate change, and catastrophic pandemics).

The Draft NZ National Security Long-term Insights Briefing (LTIB) has been produced by the Department of Prime Minister and Cabinet in conjunction with nine agencies responsible for protecting NZ from national security threats. Media have summarised key features of the Briefing, which include discussion of four global trends (increasing geopolitical competition, technological change, climate change, and future pandemics), as well as three plausible global scenarios (continued decline, dramatic decline, and an optimistic scenario).

Previous academic research has noted that national risk reports can become politicised, so it is good to see that a public survey and feedback on the proposed theme of the LTIB informed its content and reinforces legitimacy. This content focuses on six security threats, namely: disinformation, hacking and cyberattacks, transnational organised crime, foreign interference, terrorism, and Pacific resilience.

The Briefing offers 'Ten Features' that could enhance national security. These features might be summarised as:

- Developing trusted leadership and accountability for national security risks
- Partnerships with the international community, experts/partners outside government, and the media
- A drive to provide public information and foster community empowerment and engagement

The Prime Minister stated that the LTIB will discuss 'the most significant threats New Zealanders are concerned about for the next decade'. However, these may be different from the threats most likely to harm NZ citizens, and the briefing rightly notes that public expectations of investment might not reflect the increasing risks.

One concern we have is that not enough information about risks has yet been given to the public to appropriately support informed engagement. This should be addressed and any concerns about 'scaring people' need to be set aside so that high impact but rare scenarios can be discussed.

We note that all risks are made more likely or more consequential by disinformation and we applaud the authors of the draft LTIB for giving prominence to the risk of disinformation. Humans can only thrive if the information they have tracks actual states of affairs in the world. If there is a reality-information mismatch then people are at risk of exploitation or outright hostilities. They are also at risk of erroneous beliefs and decisions on national risks.

With respect to the media, we were impressed recently with the documentary miniseries *Brave NZ World* by Storymaker (available on Neon), which presents a wide range of views on the threats to NZ from nuclear war, climate change, engineered pandemics, and unaligned artificial intelligence. More reporting like this could be encouraged to help inform future NZ public surveys.

Additionally, two Cabinet papers proactively released in 2022 describe a potential approach to revamping the NZ National Security System that narrows the definition of security risks, and moves away from an 'all-hazards' approach. We think this will mean some of the major risks to NZ will not be captured by the new National Security System (however that looks) or by the National Emergency Management Agency (NEMA). We have articulated these concerns in another post here.

We have three key suggestions to improve the LTIB:

1. Improve future iterations of the public survey by providing more risk information to respondents, and clear up some ambiguous question wording (we don't discuss this further here, but have made suggestions in another blog. The Department of the Prime Minister and Cabinet (DPMC) is overseeing a repeat of the survey that informed the LTIB, to take place in February/March 2023).
2. Signal a move towards an integrated and comprehensive National Risks Assessment,

which includes both security and all other risks of national concern.

3. Explicitly articulate the extreme tail risks of each major trend identified (ie, nuclear war, unaligned artificial intelligence, extreme climate change, and catastrophic pandemics).

An integrated National Risk Assessment would allow rational resource prioritisation

The advantage of having a single overarching National Risks Assessment (of which National Security is one module) is that this allows comparative assessment of risks as well as analysis of the interplay between natural hazards, threats that malicious agents pose, and growing risks of global catastrophe and even existential threats to humanity.

Comparative analysis allows resource prioritisation decisions to be made rationally to achieve maximal reduction in expected harm. For example this League Table allows comparison across NZ and Australia health sector interventions. When using similar methodology to analyse risk reduction activities, it is likely the case that interventions across various risks require very different levels of resources to achieve outcomes such as preventing a human death. Wide variation is probably not justified and mitigation resources should be shifted to where they are most cost-effective.

The same is almost certainly true for national risk mitigation investments and for low-probability but catastrophic scenarios which risk harm to very many NZ citizens and where there may be low-hanging fruit for which moderate investments reduce expected harm substantially.

We have advocated cost-effectiveness analyses across interventions aimed at mitigating risks of national significance but achieving this requires characterisation of all hazards, natural and agential, common and catastrophic. It also requires that the common consequences of diverse risks are understood, because building resilience to these consequences will have an amplified effect across multiple risk scenarios. We think this implies that low probability high-consequence threats should be explicitly listed in the draft LTIB, and at least one should be characterised in detail.

The public survey results discussed in the draft LTIB suggest that the public thinks the government is already capable of handling extreme natural hazards and disease epidemics, but that the threat of nuclear war, or major breakdown of national infrastructure has not yet been mitigated.

Nuclear war would be a good example of a representative global catastrophe, with severe cascading impacts for NZ, for analysis to provoke resilience thinking. Some risks like this are important because though 'unlikely' they would be unbearable, and even if unlikely means a one percent chance per annum, then such catastrophes would be almost inevitable sometime this century.

Recent international work by the UN maps a more integrated course for national risk assessments, moving away from a hazard-centric approach, to one which takes a resilience focus, attends to natural and human threats together, and which addresses global catastrophic and existential threats to humanity at the level of national action, and integrated global action. This approach has been advocated by the UNDRR Framework for Global Science, the UN Secretary General's report Our Common Agenda, and through the mid-term review of the Sendai Framework for Disaster Risk Reduction.

Deliberation over such risks and whether they ought to be prioritised for mitigation, can only happen if they are included in an integrated national risk assessment, characterised, communicated to stakeholders, and put forward for engagement and resource prioritisation processes.

With an integrated national risk assessment there is likely less risk of overinvestment and infringement on liberty that is sometimes associated with over-securitisation of risk, but also there is the possibility to redirect resources away from diminishing gains at the margin on some natural hazards, and towards growing human-induced catastrophic risk (which may be neither natural hazards nor security threats).

Examples of integrated national risk assessments can be found in work by the UK, Switzerland, and the Netherlands. However, each approach has its drawbacks, and all can be improved upon. Transparency and consultation will be particularly important, but the full spectrum of risks, long-term intervention options, and resource efficiency across risk mitigation needs to be presented clearly.

Need for inclusion of extreme catastrophe scenarios

National security risk assessments are known to be subject to groupthink, political subjectivity of value, and are sensitive to the scenarios developed. We advocate inclusion of a provocative, though plausible, catastrophic scenario in the LTIB to help broaden thinking in these areas.

Additionally, establishing oversight such as a Parliamentary Commissioner for Extreme National Risks could operationalise this integrated approach and facilitate a systematic assessment of the consequences in expectation from each threat (natural hazards, security threats, and other catastrophic risks), the marginal benefit of additional action, and the value of action across all national risks.

Overall, the draft national security LTIB is a good start, advocating the development of important features for national security, including engagement with people, partnerships, and leadership. The trick now is to develop structures that can implement this vision. Such mechanisms might include a Commissioner for National Risks, a two-way information platform to support public and expert engagement, refined surveys of the public, openness about risk information, and international cooperation. There also needs to be adequate resourcing for horizon scanning to monitor the four key trends identified, as well as analysis of emerging risks (eg, machine intelligence), unfamiliar risks (eg, major solar flares) and the extreme tail risks each trend implies (eg, nuclear war or an engineered pandemic). Any revisions to the NZ National Security System must not jeopardize this wider project.

***Author details:** Dr Boyd is at Adapt Research Ltd, Dr Payne is a Research Associate with Massey University, Prof Wilson is with University of Otago, Wellington. All three authors are co-investigators on the Aotearoa NZ Catastrophe Resilience Project.

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