

The Good Ancestors Project

6 October 2022

Dear Chair and Committee

The Good Ancestors Project is an Australian not-for-profit organisation dedicated to reducing existential risk and improving the long term future of humanity. We write to express our support for the Emergency Response Fund Amendment (Disaster Ready Fund) Bill 2022 and to suggest minor changes that could dramatically increase the Bill's positive impact and the positive value it produces from the available funding.

A key lesson from the COVID-19 Pandemic is that lower-likelihood but higher-consequence disasters are a substantially greater risk to Australia and Australians than the disasters that we, regrettably, experience most years. About 20 times more Australians have died from COVID-19 than have been killed by all bushfires since 1851. Experts agree that similar viruses with much higher fatality rates are possible.

Pandemics are not the only form of catastrophic natural disaster. The Bureau of Meteorology has developed a space weather forecasting capability to provide alerts to government, relevant industries (including energy, aviation, space), and the general public. Solar Cycle 25 is due to peak in July 2025 and has the potential to be the most risky solar cycle since records began. A storm the size of the Carrington Event in 1859 has the potential to cause nation-wide blackouts and corresponding damage to communications and energy infrastructure that may mean restarting the power grid takes months. Resulting supply chain collapse - including the inability to obtain sufficient drinking water - could rapidly kill millions.

We are already learning from climate change that crops are highly sensitive to floods, droughts and variations in temperature. The prospect of flooding causing lettuces to cost \$10 is fresh in the mind of all Australians. Large volcanic eruptions, even far from Australia, could cause widespread food shortages. The eruption of Mt Tambora in Indonesia in 1815 caused a 'year without summer'. Europe's Great Famine of 1315-1317 may have been caused by the multi-year long eruption of Mt Tarawera in New Zealand. Even larger eruptions are possible.

Investment in preparedness should be based on an analytic assessment of risk, not on gut-instinct or personal experiences. On average, 6.5 deaths occurred in Australia per year from bushfires between FY2010 and FY2020. Catastrophic disasters of the kinds outlined above could kill millions. Even if there is a less than 0.1% chance of a catastrophic natural disaster each year, the fact that they can be tens of thousands of times more consequential means that, overall, the risk of catastrophic disasters is over 100x higher. Of course this is not an argument to disregard prudent preparation for fires, floods and storms - it is an argument for the Commonwealth to also show national leadership in preparation for a wider range of catastrophic disasters.

While these examples and calculations may seem grim, they are actually cause for hope. Preparation for these kinds of crises is relatively neglected, and comparatively small

investments in resilience and preparedness could have dramatic impacts in how a crisis unfolds. For instance, research into which elements of Australia's critical infrastructure are most vulnerable to space weather, paired with targeted hardening of key vulnerabilities, could turn an event where cascading infrastructure failures result in month-long blackouts into an event where damage to infrastructure is avoided and no harm is caused at all. The Bureau of Meteorology has completed the technical work necessary to build a forecasting capability, now those who would receive the forecast need to be prepared to act. The potential for such a large return on investment means that resilience against catastrophic disasters could be the most impactful action the Government could take to further the safety and security of Australians.

Organisations aligned to ours already have a track record of success in drawing global attention to the importance of preparing for catastrophic disasters. Specifically, the Future of Humanity Institute at Oxford and the Centre for the Study of Existential Risk at Cambridge, along with other leaders like Bill Gates, were advocating for dramatic increases to pandemic preparedness well in advance of the COVID-19 pandemic. Had their recommendations been adopted, the consequence to lives and the economy from COVID-19 would have been dramatically less, and it is conceivable that the pandemic could have been prevented altogether. When similar research highlights the real risk of other catastrophic disasters, we should listen.

Importantly, thinking about low-likelihood high-consequence events is not novel in Australia. The Australian Government Crisis Management Framework includes the National Catastrophic Disaster Plan (NATCATDISPLAN) for exactly these kinds of events. If the government is planning a catastrophic disaster response, it makes sense that the government also invests in resilience to such events. Further, the Royal Commission into National Natural Disaster Arrangements repeatedly drew attention to the need for Commonwealth leadership and increased focus on events where the likelihood is low but the consequences are catastrophic. We draw the Committee's attention to paras 4.20, 5.14 and recommendation 12.3. Finally, it is exactly this kind of approach that the Productivity Commission called for in the Natural Disaster Funding Arrangements Report that this Bill purports to implement, and which the Home Affairs Minister cited in her second reading speech. Volume 1, Page 238 of the report says (emphasis added):

The Australian Government should commit to developing a more refined and forward-looking risk-based formula for the allocation of mitigation funding, in consultation with the states, and within five years. **This should aim to distribute funding on the basis of where the net benefits to the community are likely to be greatest in terms of reducing the economic costs of disasters (including damage to private and public property, injury and loss of life). The formula should be forward looking and reflect relative levels of future natural disaster risk across jurisdictions, the community's vulnerability and exposure to different types of natural hazards, and the likely effectiveness of mitigation measures.**

The key point of this submission is that the net benefits to the community of investing to mitigate catastrophic disasters is very likely to be orders of magnitude higher than investing

to mitigate more frequent kinds of disaster. Although the likelihood is lower, the consequences are so much greater such that the relative levels of future natural disaster risks across jurisdictions stack heavily towards catastrophic disasters. Efforts at preparation and mitigation should therefore follow.

Given historic under-investment in preparation for catastrophic disasters and the structural incentives that have led to that underinvestment and focus on the near-term, any effective solution must be included in the enabling legislation. Only a change to the enabling legislation can reliably implement the Productivity Commission's report by changing the incentive structure of the grants programme to ensure mitigations targeting catastrophic disasters are funded.

With that in mind, the Good Ancestors Project recommends two changes to the Bill:

First, the Bill should be amended to contain an inclusive list of the kinds of natural disasters that grants could be made to prepare for, explicitly including types of catastrophic disasters. While this inclusion would not change the overall meaning of the Bill, it will signal enthusiasm to consider grant applications that address low-likelihood but high-consequence events.

Second, the Bill should specify that at least 10% of funding dispersed each year from the fund should go towards projects specifically designed to mitigate catastrophic disasters like pandemics, space weather, collisions with outer-space objects and volcanic activity. Given the expected value of grants targeting these kinds of risks could be orders of magnitude higher than grants targeting higher-likelihood events, earmarking a portion of the fund for this purpose could more than double the overall impact of the programme and ensure value for money.

We appreciate the opportunity to provide written comment on the Bill and would be available to give oral evidence to further assist the Committee.

Regards,

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The Good Ancestors Project