POLICY Quarterly

Free and Frank Advice

and the Official Information Act: balancing competing principles of good government

Editorial – Free and Frank Advice and the Official Information Act

This issue of *Policy Quarterly* leads with an important co-authored article on the challenge of balancing two of the fundamental constitutional principles embodied in the Official Information Act (OIA). The first is that governments should be open and transparent, thereby enabling effective democratic participation and political accountability. The second is that government officials should provide their ministers with 'free and frank' advice (i.e. advice that is well-informed, empirically robust, honest, non-partisan and, when appropriate, hard-hitting), thereby ensuring that decisions are based on robust information and analysis. The article in question is doubly important because of the authoritative positions held by the two authors: Andrew Kibblewhite is the Chief Executive of the Department of Prime Minister and Cabinet and Head of the Policy Profession for the public service, while Judge Peter Boshier is the Chief Ombudsman. That they have joined forces to provide insights and commentary on an issue that goes to the heart of governmental integrity is most welcome.

While occupying different institutional roles, the two authors agree on several basic considerations: first, the principles of governmental transparency and the provision of free and frank advice are both critically important; second, the two principles are sometimes in tension — hence, neither can be fully realized across all policy areas without some loss to the other; third, for good government a balance must be struck and this requires the exercise of wise judgment; and fourth, in striking such a balance it is possible to identify some useful criteria. For instance, there is generally a stronger case for protecting the confidentially of advice provided by officials at an early stage in policy deliberations than that tendered towards the end of the process.

What lies behind the tension between transparency and hard-hitting advice? In many ways the problem has to do with political risk. A brief explanation must suffice.

Democratic accountability requires a high degree of governmental openness. This includes parliament and the public having access to official papers and documents, not least those which contain policy advice to ministers from public officials. Only if such information is publicly available is it possible to ascertain the basis upon which ministers have made their decisions and assess the quality of the evidence and advice that informed their judgments. Citizens also need such information sufficiently early in the policy-making process in order to participate effectively in democratic deliberation.

Against this, government officials may be reluctant to provide 'free and frank' advice — and/or ministers may be deterred from seeking it — if such advice is likely to become public, all the more so if it will be released soon after its provision. To start with, officials will be mindful of the risk of political embarrassment — and hence possible electoral damage — if information is released highlighting significant disagreements between ministers and their advisers on important policy matters. Any such embarrassment will depend, of course, on the extent to which the politicians involved have confidence in, and a sound basis for, their own judgment. A related risk is that controversial policy options may be rendered 'dead in the water' if it becomes known early in the process that they are under active consideration.

In short, 'speaking truth to power', while critically important, entails risks. Hence, a degree of confidentiality is essential if officials are to have the freedom and confidence to tender potentially contentious advice — and if ministers are to be willing to receive such advice and take it seriously.

Has New Zealand struck an optimal balance between openness and confidentiality? And are officials providing advice that is *sufficiently* free and frank?

Such questions are not easy to answer. The available evidence is patchy and some of it conflicts. On the one hand, there have been ongoing concerns over multiple governments that ministers too often thwart the intentions of the OIA by withholding departmental advice with which they disagree or which might prove politically embarrassing if publicly released. On the other hand, the case is often advanced that the OIA has had a 'chilling effect' on the provision of free and frank advice. Officials, it is argued, have become too compliant and exercise undue self-censorship; they often lack the resolve to 'speak truth to power'.

Andrew Kibblewhite, while acknowledging these concerns, maintains that 'much free and frank advice is still given by officials — the art is far from dead'. The problem, he contends, lies in a failure of officials to document their advice. But any such lack of documentation is, presumably, related to a desire to minimize political risk: after all, oral advice, while covered by the OIA, is easier to conceal and more difficult to 'release'. Interestingly, the results of a survey conducted in 2017 by my colleague at Victoria University Chris Eichbaum, together with Richard Shaw of Massey University, indicate that a substantial number of public servants believe that the appetite for providing free and frank advice is not what it should be. Such results are of concern.

What, then, is the way forward? Hopefully, the recent amendments to the Cabinet Manual and the State Sector Act will help strengthen the incentives for officials to provide free and frank advice — and for ministers to receive such advice. Likewise, the new principles-based guidance offered by the Chief Ombudsman — and summarized in his contribution to *Policy Quarterly* — will reduce the uncertainties over how the principles embodied in the OIA should be interpreted.

Ultimately, however, much depends on the ethical norms that guide our political leaders and those who serve them. While managing political risk is important, the paramount duty of government officials is to protect the public interest and safeguard our democratic institutions. Accordingly, as Dr Ken Henry, the former Secretary to the Treasury in Australia, once observed, officials must provide the government with advice that is both *responsive* (i.e. advice that ministers need and want to hear) and *responsible* (i.e. advice that is needed but may not be welcomed or encouraged, and indeed at times actively discouraged). Responsible advice requires a strong moral compass — all the more so in an era of 'fake news', disinformation and the 'war on truth'.

Jonathan Boston

Andrew Kibblewhite and Peter Boshier

Free and Frank Advice

and the Official Information Act: balancing competing principles of good government

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Concern exists that New Zealand hasn't struck the right balance between two potentially competing principles of good government: officials should provide free and frank advice to ministers, and the public should have opportunities to participate in decision making and hold the government to account. Steps we have taken to address this include: strengthening constitutional underpinnings for free and frank advice (Cabinet Manual changes and issuing expectations for officials); a work programme to improve government agency practice in relation to the Official Information Act; and the Office of the Ombudsman reducing uncertainty about when advice can be withheld by issuing new principles-based guidance and providing more advisory services.

Keywords free and frank advice, stewardship, official information, Official Information Act, expectations

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It may seem novel that the chief ombudsman and the chief executive of the Department of the Prime Minister and Cabinet are writing an article together; however, this demonstrates our shared commitment to good government. For some time we have been discussing how to balance two principles that contribute to good government. The first is that public servants should provide free and frank advice to ministers. The second is that the public should have timely access to official information that enables them to participate in government decision making and hold the government accountable.

We both recognise the potential for tension between these two principles. If public servants give advice that is less than free and frank because of concerns about its public release, there is a risk to good government. This has led us to ask: to what extent can and should New Zealand's public servants expect their advice to ministers to remain confidential? In this

article we explore this and related questions from the different perspectives of our respective offices.

From the Prime Minister's Department perspective (and that of head of the policy profession), free and frank advice is crucial to government making good decisions, and achieving good outcomes for those who live in New Zealand. If concern about release of advice under the Official Information Act (OIA) discourages officials from providing free and frank advice – or ministers from seeking it – we need to address that. But we also need to use all the other means available to us to foster free and frank advice and open government.

> The Cabinet Office revised the Cabinet Manual in 2017 … [making] specific reference to the duty that ministers have, as the recipients of free and frank advice, 'to give fair consideration and due weight to free and frank advice provided by the public service' …

From the chief ombudsman's perspective, the Official Information Act needs to operate with as much certainty as possible. The subject of 'free and frank advice' and when it might be protected or not is a difficult and uncertain matter for chief executives and ministers. Creating as much certainty as possible is desirable, because that promotes good government.

Providing ministers with free and frank advice – Andrew Kibblewhite
Advising ministers has long been a crucial public service role in countries with Westminster-style systems of government. Our own State Sector Act 1988, as revised in 2013, legally defines the role of public servants as ministerial advisors. The act refers to the advisor role in two clauses. Chief executives continue to be responsible to the appropriate minister for 'the tendering of free and frank advice to ministers' (section 32(1)(f)). In

addition, chief executives are responsible for 'the stewardship of the department or departmental agency, including of its medium- and long-term … capability, and capacity to offer free and frank advice to successive governments' (section 32(1)(c)).

In my role as head of the policy profession, I am working to build a common understanding of what this advisor role means for public servants. Some of the points I made in a series of speeches about free and frank advice between 2015 and 2017 (Kibblewhite, 2015, 2016) bear repeating:

> For the record, I'm not suggesting that officials are the only experts who advise

ministers, or that we are the only voices they should listen to – far from it. But our advice is important for a number of reasons. First, we are trained in how to offer analytically robust, practical, apolitical advice to ministers on achieving their goals. Our responsibility is to seek the best outcomes, not the political advantage of a party, faction, or particular sector of society.

Added to that, the best advisors build relationships with stakeholders inside and outside of decision-making circles so we are well informed about how different choices will play out in the real world. And we are a professional, permanent cadre of advisors. We've seen many policies implemented before, sometimes successfully, sometimes less so. We've learned lessons when policies implemented against our advice have succeeded and policies we've backed have failed.

And finally, we have the unique advantage of providing advice from the privileged position of being on the inside. We see the shifting sands that governments are navigating, how much room they have to manoeuvre, how stakeholders are reacting, what impacts the media narrative is having on their choices, and we have the chance to position our advice so it can be most effective.

For these reasons, an impartial and politically-neutral public service is one of the strengths of our system of parliamentary democracy: it combines deep expert advice with democratic responsiveness.

In the policy context I believe the State Sector Act stewardship provisions also give public servants a duty to look ahead and provide advice about the future challenges and opportunities New Zealand faces. This includes at times offering hard-hitting advice to the government of the day that the current policy mix might not be working, or drawing attention to emerging factors that may require existing goals to be refocused or replaced.[1]

Providing advice that is free and frank about immediate and longer-term issues is a demanding ask – and it is an art as much as a science. So it is important that we understand what it means to be both free and frank as a policy advisor.

The 'free' in free and frank isn't the same thing as free speech. Public servants are entitled to their opinions, but it's not part of their day job to share that with anyone, anywhere. The free part of free and frank means that public servants offer their best advice freely to decision makers, without withholding any key evidence or information. Free also means we shouldn't second guess what ministers will want to do – it's about telling ministers what they need to hear, not what we think they want to hear.

Frank means we don't pull our punches with ministers. We are honest about where we think the pitfalls and risks are. However frank doesn't mean foolish. As in any relationship there are smarter ways of saying things – we need to give the hard truths in the most

constructive and palatable way possible. (Kibblewhite, 2016, p.4)

Fostering free and frank advice and better public access to official information – Andrew Kibblewhite

We have taken a number of steps, over the last few years, to bolster officials' understanding of their obligation to provide free and frank advice and ministers' understanding of their obligation to receive it. The Cabinet Office revised the Cabinet Manual in 2017 so that it now, for the first time, makes specific reference to the duty that ministers have, as the recipients of free and frank advice, 'to give fair consideration and due weight to free and frank advice provided by the public service' (section 3.8).

The state services commissioner, Peter Hughes, and I also took steps last year to strengthen public service and ministerial expectations regarding the supply of free and frank advice and policy stewardship. A working group led by the policy project team developed an expectations document which was formally issued by the state services commissioner in December 2017, along with a 'frequently asked questions' supporting document (State Services Commissioner, 2017a, 2017b). We engaged with ministers before finalising the expectations, and the prime minister has expressed her strong support for them.

The new expectations document makes it clear that public servants are expected to provide advice that:
· identifies the nature, scale and significance of the policy issue or opportunity (with supporting evidence);
· is politically neutral while also being aware of relevant political contexts;
· recognises the historic, contemporary and potential longer-term dimensions or conditions;
· is comprehensive, objective and balanced to cover the range of options that address the issue(s);
· is honest about where the opportunities, benefits, costs and risks of all options are, and about the limitations, assumptions and information gaps in analysis;
· is clear about any trade-offs involved and which option(s) on balance are recommended;

delivers any hard truths in the most palatable way possible; and
· covers implementation issues. (State Services Commissioner, 2017a)

We have an active programme underway to inform public service advisors at all levels about the expectations about free and frank advice and policy stewardship, with the policy project team most recently holding forums for policy managers across the public service on the subject. I will continue to do all I can to ensure that officials understand what is expected of them, and are supported to deliver on those expectations.

I am also conscious of the need to strike the right balance between enabling

confidential consideration of free and frank advice, and enabling the public to access official information to support open government. The commitment made in the government's Open Government Partnership *National Action Plan 2016–18* to improve government agency practices around requests for official information under the Official Information Act is another important development. The State Services Commission and the Ministry of Justice are leading the actions being taken to deliver on that commitment by:
· ensuring that information about the OIA (how to make requests, etc) and responses to requests are easy to access on agency websites;
· publishing OIA statistics (how many requests, time taken to respond, etc);
· developing a clear statement of government policy on proactive release of Cabinet papers and related material;
· developing a suite of consistent measures about OIA performance;

improving access to official information by publishing responses to requests on government websites and developing principles for more proactive release; and
· supporting agencies to deliver by developing appropriate guidance and training. (Open Government Partnership New Zealand, 2016, p.11)

The steps outlined above underscore the commitment of the public service to lift our game on the transparency of government and in particular the OIA. We are working to put our house in order. To genuinely improve the environment for providing robust free and frank advice these steps need to be coupled with greater

> The guiding principle [of the Official Information Act 1982] became availability: official information shall be made publicly available unless there is good reason to withhold it.

certainty about the circumstances under which free and frank advice can be held in confidence. Advice does not occur in a vacuum, and at times public servants can be affected by the extent to which they can rely on their candid advice remaining confidential, particularly where they are expressing different views from those of the government. This is a subject the chief ombudsman and I have discussed at length over the last year.

The policy settings that govern official information – Peter Boshier

In the original design of Westminster-style government, public servants held a unique position as trusted and privileged insiders. The advice they provided was confidential: intended only for the eyes and ears of the politicians they served. In New Zealand, the Official Secrets Act 1951 sustained that position for over 30 years. The general rule was that official information should remain secret unless there was a good reason for releasing it. This meant that public servants could provide advice that challenged the

views of ministers, secure in the knowledge that it was unlikely to end up on the front page of the newspaper. A connection between the Official Secrets Act and the Crimes Act made it a criminal offence to release official information without approval.

The principle underpinning the Official Secrets Act was turned on its head with the passage of the Official Information Act 1982. The guiding principle became availability: official information shall be made publicly available unless there is good reason to withhold it.

The OIA identifies two good reasons for withholding official information that constitutes free and frank advice (colloquially known as the 'good

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government' provisions), in sections 9(2)(f)(iv) and 9(2)(g)(i). These provisions reflect the view of the Danks committee (whose recommendations led to the OIA) that 'to run the country effectively the Government of the day needs nevertheless to be able to take advice and deliberate on it, in private, and without fear of premature disclosure' (Committee on Official Information, 1980, p.19).

The first of these 'good government' reasons for withholding official information is to maintain the constitutional convention protecting the confidentiality of advice tendered by ministers and officials – section 9(2)(f)(iv) of the OIA. This section usually applies where the release of confidential advice given to ministers or Cabinet would hinder the orderly and effective conduct of government decision-making processes. Generally this section of the OIA only provides grounds for temporarily withholding the release of free and frank advice.

The second 'good government' reason for withholding official information is to maintain the effective conduct of public affairs through the free and frank expression of opinions – section 9(2)(g)(i) of the OIA. This section applies where release of the information would inhibit the future exchange of free and frank opinions that are necessary for the effective conduct of public affairs.

Both of the 'good government' reasons to withhold free and frank advice are subject to a public interest test: namely, that the need to withhold information is not outweighed by the public interest in its release. There are two matters of public interest that are particularly relevant here.

The first is holding public servants to account for the advice they provide to the government, and holding ministers to account for the decisions made on that advice. The second is enabling public participation in the development and administration of laws and policies. The OIA balances the public's right to know with the government's need to receive the free and frank advice required to make good decisions.

Concerns about the practice of free and frank advice – Andrew Kibblewhite

In the last decade, a number of commentators have expressed concern that despite the 'good government' provisions of the OIA, the presumption in favour of releasing official information has had unintended consequences for the provision of free and frank advice.

In 2013, Matthew Palmer gave an address to the Public Service Association and Fabian Society in which he pointed to

a shortage of free and frank advice: 'There is now, in my view, far too much second guessing by public servants of the political incentives on ministers – and too much pulling of punches in the provision of advice' (Palmer, 2013, p.2). He pointed to evidence supporting this from the research of Nicola White at the Institute of Policy Studies, published in the book *Free and Frank* in 2007. Nicola White concluded from her research that:

there is now reasonable evidence that:
- blunt advice is offered less easily, and obfuscation and softer language are widely preferred;
- wide-ranging advice is restricted, with written documentation tending to stick to the safe middle ground and more adventurous thoughts being tested in discussion;
- if issues are delicate or difficult, they are dealt with orally;
- many people working at the centre or at sensitive levels of government work largely without creating records and, for example, will avoid email completely because of a lack of any assurance that their comments could be protected;
- documents that are clearly going to become publicly accessible tend to be written with that fate in mind, so they do not contain anything that could attract a headline or create a story in itself – the 'front page of the *Dominion* test' is becoming a public service norm equal in status to 'no surprises for the minister'; the public record suffers from incomplete documentation and from papers that are written for the record rather than for the moment;
- relationships can be damaged when people, particularly ministers, perceive a group of officials to be 'writing for the record' or 'setting them up' by creating paper trails;
- dissection of the exact role of officials and ministers in any overall piece of government policy work or decision-making can destabilise relationships, and create intrigue out of the ordinary business of supporting a politically responsible executive; and

· the fishbowl nature of working at senior levels in the public service appears to have made it more difficult to attract and retain staff. (Wright, 2007, p.271, quoted in Palmer, 2013, pp.2–3)

More recently there have been media reports about the preliminary results from a questionnaire that Chris Eichbaum of Victoria University and Richard Shaw of Massey University distributed through the New Zealand Institute of Public Administration. They received 640 responses, with more than 80% from individuals employed in the state sector. More than half of the respondents (53%) indicated some agreement with the statement: 'Public servants in 2017 are less likely to provide a minister with comprehensive and free and frank advice' (Eichbaum, 2017).

In regard to reversing this trend, Matthew Palmer has expressed the view that we should 'insist that Ministers, and public servants, harden up. If the job is to give free and frank advice then that is what public servants have to do and Ministers have to like it.' He envisaged this attitudinal change being achieved through leadership. 'Both at senior political and senior bureaucratic levels, there would need to be a formal acknowledgement that our system of government and constitution values free and frank advice as an objective and that a paucity of it is a problem' (Palmer, 2013, p.6).

My own experience is that much free and frank advice is still given by officials – the art is far from dead. But I do concede that we have become less diligent about documenting that advice, and documentation matters. Without it the rigour of analysis is weakened through less exposure to subsequent scrutiny. The basis of decisions can also become lost with the passage of time and the Crown's ability to defend its decisions, if challenged by way of judicial review, is weakened.

So what to do? I agree that Matthew Palmer's prescription – that officials and ministers need to 'harden up' – is part of the remedy. Robust advice provided to ministers on the merits of a proposal should first be given, then appropriately released – ideally proactively, at a time that

will most usefully support the public's understanding of the policy decision. As discussed above, we have taken a number of steps to make sure officials understand what is expected of them in this regard.

I am, however, firmly of the view that 'hardening up' is a necessary but not sufficient condition. Ministers and senior officials also need to have confidence that some advice – particularly early stage (often discretionary) advice that might directly challenge policy settings or the ideological priors of the minister – can be given and received in confidence. While the free and frank grounds for withholding advice offer some protection for this sort of discourse, neither ministers nor officials have felt confident in how those grounds will be applied. This uncertainty is damaging for good decision making because over time it has a chilling effect on the provision of free and frank advice. It is to the great credit of the chief ombudsman that he has acknowledged the important role his office plays in creating certainty for policy practitioners, and has taken steps as set out below.

Clarifying the application of the OIA's 'good government' provisions – Peter Boshier
The OIA has lately attracted attention related to whether or not the act is effective, whether it is applied efficiently, and whether reform is required. For the most part, the provisions of the act are clear. However, commentators have long recognised the elusive nature of clarity in relation to this area of law (in sections 9(2)(f)(iv) and 9(2)(g)(i) of the OIA). For example, the Law Commission considered the 'good government' grounds in its 2012 review of the OIA, and recognised that they are among the grounds that cause the most

difficulty for those who request and hold official information (Law Commission, 2012, p.50).

There are two major contributions I can make in this area:
1. clearly stating my view – and therefore the lead I give to my office – on how the OIA provisions relating to free and frank advice should be applied. To achieve this, I have recently published detailed guides on the grounds for withholding free and frank and confidential advice to the government, and how they should be applied to information generated in the public policymaking process (Office of the

> The [Official Information Act] has lately attracted attention related to whether or not the act is effective, whether it is applied efficiently, and whether reform is required.

Ombudsman, 2018a, 2018b, 2018c);
2. making my office more available to officials faced with an official information request who are unsure whether the withholding of information is justifiable. I want my office to be known not just for investigation and recommendation, but also as a first stop for advice and guidance before a decision is made.

I am keen to achieve greater certainty, and I think it can be reached on a principled basis. Of course, one should never prejudge the outcome of any complaint. But just as with court work and litigation, it makes sense for officials planning to adopt a particular response to an OIA request to know what they are heading into and what the outcome might be. I have therefore instructed my office that we must be bold in giving that clarity, while still preserving our ability to investigate fully if required, and deliver an opinion and make recommendations if we think that an error has occurred. Over time, this initiative should result in a reduced need to make recommendations, as officials better understand the circumstances in

which withholding free and frank advice is permissible.

A crucial element of good government is the ability of a chief executive or their staff to be able to give honest and fearless policy advice on an issue to ministers at an early stage. Ultimately, the soundness of the decision made (and converted into policy and statute) may depend on an initial robust analysis of what a problem is thought to be and what the best solutions seem to be. This is a fundamental aspect of democracy and must not be lost.

For this reason, where discussion and advice is at a very early stage – it is exploratory, or 'blue skies thinking', or

reference, and the development plan or stages of policy development ahead (including timeframes for any public consultations and final decisions).

The third phase of the journey will involve reasonable certainty of the route and likely destination. By this time I think the principles of participation in democracy should weigh heavily. This is the chance for the public to know about policy and contribute to its development. Disclosure of any firm options being considered would usually fall within this phase. Detailed advice on the options may require protection to enable the free and frank exchange of opinions and

I hope that my explanation of what is appropriate at each stage in the process and my reflections on the importance of the beginning phase help to create the certainty that I am looking for. If it is less clear where in the continuum policy advice is at, reasonable certainty can be instilled through a candid discussion with my office to obtain an objective view on whether information can be protected at that time or not.

Conclusions – Andrew Kibblewhite and Peter Boshier

Good government requires officials to be able to provide free and frank advice to ministers in confidence. And it requires the public to have opportunities to participate in decision making and hold the government accountable for its decisions. Getting the balance right between these two principles matters, as too much of the latter may result in less of the former, and vice versa. Between us, we have been actively using any means in our power to foster free and frank advice, while also encouraging open government.

From inside executive government it has been necessary to strengthen the constitutional underpinnings that influence how free and frank advice is delivered and received. We have done this through recent changes to the Cabinet Manual and by issuing formal expectations for chief executives. Government agencies also need to get better at dealing with public requests for information in a timely fashion. We both support the programme of work underway to achieve that.

> We agree that the path to fostering free and frank advice involves the chief ombudsman and his office creating as much certainty as possible on how the 'good government' provisions of the OIA are applied.

deliberately provocative – it ought to be protected. If that is not the case, the chilling effect of the release of early stage free and frank advice on the provision of such advice may undermine the integrity of this decision process.

If I liken this approach to a potential journey with four phases, the first phase is alerting the minister that a journey may be needed, and indicating some possible routes. It is impossible to say at this early stage whether the journey will actually take place, or if it does what route the journey will take. If the minister indicates potential interest in embarking on this journey, the second phase is becoming clearer as to what the destination might be.

During these early stages, advice is more likely to require protection on the basis that disclosure would prejudice the future free and frank exchange of opinions necessary for the effective conduct of public affairs. However, general information could be released at this time about the policy's scope or terms of

orderly conduct of the decision-making process. However, a brief outline of options can usually be disclosed without undermining those interests. This allows the public to participate in the decision-making process by offering a contestable stream of advice.

Finally, at phase four, where the journey is all but complete, there should be certainty that information will be released unless some wholly different withholding ground can be established. The strong public interest considerations that favour disclosure would be accountability and transparency of the decision on which option was chosen, the advice provided and reasons why that decision was made.

So, when officials are considering how to apply the 'good government' withholding provisions of the OIA to their free and frank advice, they must always be able to illustrate where in a governmental decision process information is being generated and for what purpose.

We agree that the path to fostering free and frank advice involves the chief ombudsman and his office creating as much certainty as possible on how the 'good government' provisions of the OIA are applied. This greater clarity will be provided by the new guides on those provisions and the office's better availability to give advice at the start – in both cases, being as thorough as possible about the relevant factors relating to this area of official information.

We hope our collective efforts to clarify expectations of officials and to improve certainty and confidence in the application of the OIA can enhance the appetites of both ministers and officials to receive and offer challenging stewardship advice – 'blue

skies thinking' – that comes early in the policy process. Our aspiration is that both requesters and the agencies and ministers who receive the requests can operate with increasing confidence. This will enable them to increase their speed in handling requests and disclosing information, or to know when withholding is more clearly justified.

We now wait with interest to see what impact these initiatives have on both the provision of free and frank advice and the release of official information to the public. We anticipate that the balance between the two will continue to evolve, as citizens expect to be more involved in the design of policies and services, and as enabling digital and other technologies emerge.

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1 The guidance on policy stewardship issued by the State Services Commissioner in December 2017 explicates this understanding (State Services Commissioner, 2017a, 2017b).

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Thomas Anderson and Simon Chapple

Grease or Sand in the Wheels of Democracy? The market for lobbying in New Zealand

Abstract

What is the nature of the New Zealand market for political lobbying? Is lobbying grease in the wheels of a well-functioning democracy – adding to overall societal efficiency – as its supporters suggest? Or is lobbying sand, wasting resources in buying redistribution to the powerful and damaging the social fabric essential for a well-functioning democratic mixed economy, as opponents of lobbying believe? And, should we regulate lobbying in New Zealand, and why? This article concludes that the question is not whether lobbying should be made more transparent via regulation, but rather how this can best be achieved.

Keywords lobbying, vested interests, transparency, OECD, nature of lobbying, regulation, parliamentary access

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What is the nature of the market for political lobbying in New Zealand? Is our lobbying grease in the wheels of a well-functioning democracy – adding to overall societal efficiency – as its supporters suggest? Or is lobbying sand in the wheels, by wasting resources in buying redistribution from one social group to another and damaging the social fabric essential for a well-functioning democratic mixed economy, as opponents of lobbying believe? And, should we regulate lobbying in New Zealand, and why?

Broadly, lobbying is any effort by individuals or collectives to directly influence decisions of legislators and public officials outside elections. So defined, lobbying is an important element of political participation outside the voting booth. This article focuses more narrowly

on the local *market* for lobbying. Market lobbying occurs via the purchase of the services of a profit-making lobbying intermediary lobbying for a third party. Market lobbying also arises where a body, such as a corporation, a trade federation or peak business organisation, a trade union federation or a non-governmental organisation (NGO), hires a person and allocates their time to lobbying activity.

When analysing a market, the usual first port of call for developing an understanding is industry statistics. However, such data does not exist for lobbying. Statistics New Zealand industry data does not contain an exclusive industry category for political lobbying intermediaries; the industry is too small. Most intermediary lobbyists are probably included as management advice and related consulting services. The market is also too diffuse. For those corporates that directly lobby government, their lobbying activity will be included as measured output in their disparate industries. Additionally, data on NGO, trade union and business organisation lobbying activity is not available as such.

In many countries, the regulation of lobbyists provides considerable information with which to examine the lobbying market. While this has not resulted in a definitive overseas answer to the grease versus sand question, it provides information pertinent to addressing the issue to the public, and, via a more transparent system, automatically reduces the amount of sand in the system. By contrast, lobbying is unregulated in New Zealand. A Lobbying Disclosure Bill was introduced in Parliament in 2012 by the Green Party, but it was unsuccessful, with the general view being that it was an ill-considered and poorly crafted legislative response (Edwards, 2018b). The downstream consequence of an absence of regulation is an ongoing lack of public information on the local market.

However, various sources of information can be utilised to cast light on the local lobbying market, allowing a structured discussion of whether it provides grease for or is sand in the wheels of New Zealand democracy, if not anything approaching a definitive conclusion. There are a number of media articles on aspects of the lobbying industry (e.g. Dudding,

2011; Walters, 2017; Edwards, 2017, 2018a, 2018b; Barton Deakin, 2016; Secombe, 2015). There are commentaries by politicians (e.g. Mallard, 2003). There are several pieces of postgraduate student or academic research (Williams, 2014; Tyler, 2015; Strong and Tyler, 2017), as well as a useful broader consideration of vested interests, including lobbying, by Ellie Argyle and political commentator Colin James (Argyle and James, 2014). There are several investigative works alleging egregious behaviour by lobbyists (Hager and Burton, 1999; Hager, 2002, 2012). There is one policy article by a professional lobbyist (Unsworth, 2014). Information on some lobbyists is available from a list of access cards to Parliament issued by the speaker of the House. There is online

information provided by lobbying companies to promote themselves to potential clients. Finally, there is a body of theory and empirical evidence on lobbying markets from overseas. It is to this international literature to which we first turn.

International literature on lobbying
There is a vast international literature on lobbying from a wide variety of disciplinary perspectives. The surface of this literature can be scratched here only, and our focus is on the economic literature, which is based on a rational choice paradigm which, while delivering insights (e.g. Grossman and Helpman, 2001), may not be the most appropriate lens through which to consider lobbying. As overseas information comes from different political and economic environments, their conclusions must be applied with care to New Zealand. Yet that information is far from irrelevant.

There are several core theories in the international literature on the market for

lobbying. The first theory is that vested interests directly lobby policymakers with money to generate political change which rewards their bottom lines (Olson, 1965; Tollison, 2014). Such 'rent seeking' lobbying is entirely social sand: it wastes society's resources. A second theory suggests that vested interests lobby policymakers with a mix of private information and money (De Figueiredo and Richter, 2014). Money either signals the credibility of their information or buys access to policymakers. This form of lobbying may be a mixture of grease and sand, if the private information is of social value. A third theory suggests that vested interests with similar objectives to policymakers support policymakers to allow them to fulfil more of their shared objectives (Groll and McKinley, 2015).

Empirical researchers have had limited success in identifying whether lobbyists are successful because of *what* they know – their knowledge base – or *who* they know – their connections.

Again, this form of lobbying may be a mix of grease and sand.

While the empirical work arising out of the rational choice paradigm has been unable to determine the extent to which lobbying generates social value, or has chosen not to address these questions (Grossman and Helpman, 2001, p.4), it has established a number of important empirical regularities about lobbying. While many of these stylised facts are unsurprising, it is valuable to have them confirmed by systematic study. These empirical regularities, for the United States, are as follows (all from De Figueiredo and Richter, 2014). First, lobbying spending is significantly more sizeable – five times larger – than private funding of political parties. Second, businesses account for the vast majority – 84-86% – of lobbying spending. In contrast, issue–ideology groups, such as environmental groups, comprise a small share: between 2% and 7% of spending. Corporate lobbying is not cancelled out by the countervailing power

Figure 1: Number and distribution of lobbyists and non-lobbyists with swipe card access to Parliament, 2012 - 2017
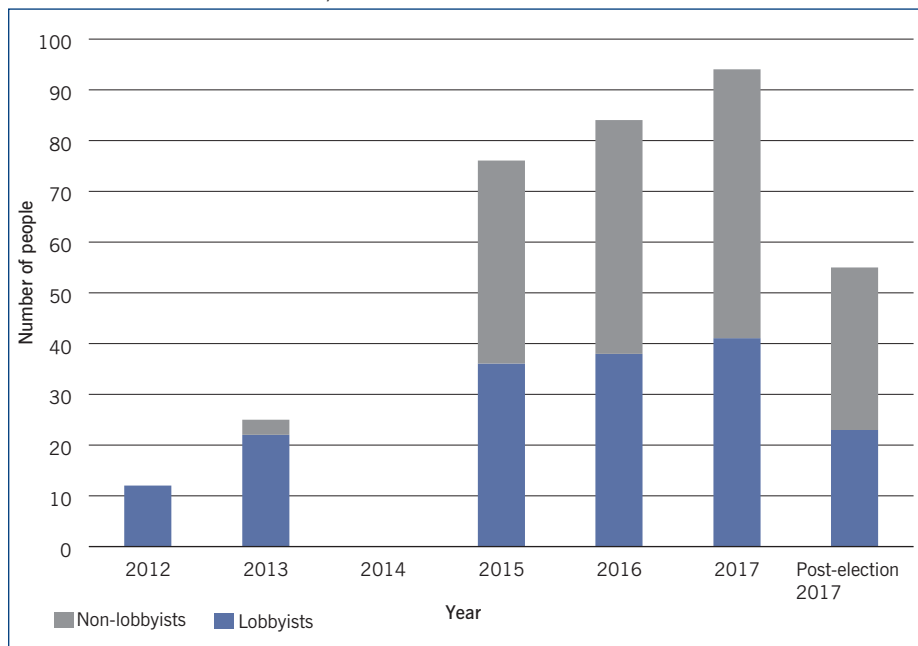

Table 1: Market shares of lobbying

	New Zealand (estimated guess)	European Union
Corporates	26%	13%
Business Associations and Unions	20%	10%
Consultants (intermediaries)	18%	15%
NGOs	18%	13%
Local government	7%	N/A
Iwi	5%	N/A
Government funded advocacy	5%	N/A
Trade Federations	N/A	35%
Regional representation	N/A	8%
International Organisations	N/A	5%
Think Tanks	N/A	1%

Source: Unsworth, 2014

of issue–ideology groups. Third, large corporations are more likely to lobby independently than smaller corporations, and they tend to continue lobbying over time. Fourth, lobbying increases when there is a larger financial stake for the organised interest. A fifth fact is that lobbyists target two sorts of politicians: the powerful agenda setters, and those wavering at the margins who can most easily be swayed.

Empirical researchers have had limited success in identifying whether lobbyists are successful because of *what* they know – their knowledge base – or *who* they know – their connections. The evidence suggests both factors are operating (De Figueiredo and Richter, 2014). Lastly, a large body of empirical research shows that lobbying

generally generates positive returns to the lobbyer (Borisov, Goldman and Gupta, 2015; Hadani, Bonardi and Dahan, 2017).

Lobbyists and parliamentary access
Who has swipe card access to Parliament, other than staff and MPs, also allows some insights into lobbying, providing some, albeit imperfect, information on some market participants and their sectoral distribution. Here we consider this data and the qualitative implications of its limitations. The numbers with card access are small and those who appear to be lobbyists is smaller. However, the number of lobbyists grew rapidly from 12 in 2012, to 41 people in July 2017 (see Figure 1). Whether this represented industry growth, or simply higher rates

of acquisition of cards, is unclear. In 2003 MP Trevor Mallard claimed that '[i]n the many years I have spent in Parliament, I have noticed a growth in lobbying. This growth is likely to continue. Lobbying as a practice and a discipline is going to get more sophisticated and more common', and he repeated this view in 2015 (Tyler, 2015, p.18). In 2015 another long-serving MP, Peter Dunne, reported that lobbying activity had shrunk, but agreed with Mallard that it had become more sophisticated in its methods (ibid., p.19). After the 2017 election, the new speaker of the House reduced numbers with card access. Lobbyists currently make up fewer than half of those with cards; 22 of those with cards appear to act as lobbyists. In terms of the organisations they represent, their current number and distribution are as follows:

· seven holders (32%) represent corporations;
· seven (32%) are intermediary lobbyists;
· two (9%) represent industry bodies (businesses);
· five (23%) represent trade unions – either the NZCTU or the PSA;
· one (5%) is an incorporated society (the New Zealand Taxpayers' Union).

By way of comparison with the card data, Table 1 shows lobbyist Mark Unsworth's impressionistic estimates of market share of lobbying by sector, next to his European Union figures. In terms of the broad dominance by corporations and their proxies, the access card data looks similar to Table 1, and the local dominance of market lobbying by business interests is also similar to the international empirical facts considered above. However, Unsworth's data suggests a stronger representation of NGO lobbying in New Zealand compared to overseas.

A key characteristic common to all corporations with cards is their size, again consistent with the international literature. Large companies whose bottom line can be significantly influenced by central government regulations and policies have a strong incentive to lobby. If they do a considerable amount, it is rational to employ a person who specialises in this task, rather than purchasing lobbying services from an intermediary (although

corporations may also do this). Corporations with an employee with an access card currently include Air New Zealand, Fonterra, Chorus and Westpac. These people have roles as directors or managers of 'external relations', 'communications' or 'public affairs'; many of them have previous political experience in different guises.[1]

Specialist lobbying firms – intermediaries – also appear to be an important part of the market. These firms provide lobbying services for multiple clients. Who these clients are is unclear, and it is unknown how much the firms are paid and to what extent clientele engage in one-off transactions or repeat business. However, clients are almost certainly disproportionately weighted towards the business sector. Well-known firms such as Saunders Unsworth, Busby Ramshaw Grice Ltd and Boag Allen SvG all have employees with cards. Many of these specialist lobbyists also have extensive experience within the political system.

The organisations representing industries with representatives on the list are peak organisations whose activity is affected regularly by regulations and legislation. A significant number of trade unionists are also on the list. It is unclear whether union representatives on the list are full-time lobbyists.

The card list suggests that a relatively small lobbying market exists in New Zealand. Indeed, the established wisdom is that the market is both relatively small and unimportant (see, for example, Walters, 2017). In order to contextualise this conjecture, the per capita number of lobbyists in the United States and Australia is of relevance. In 2016 the United States had 11,143 active lobbyists for a population of 323 million.[2] If New Zealand had a similar per capita proportion, there would be about 164 local lobbyists. Australia has 554 registered lobbyists currently and a population of about 24 million.[3] Having an Australian per capita figure here would mean about 108 lobbyists.

The card data suggests that the New Zealand lobbying market is roughly 13% the size of the United States' and 20% the size of Australia's. However, the access card list, while giving an approximation of the distribution of institutions engaging in lobbying, has several important deficiencies as a data source for the number of lobbyists employed. What does it miss? First, not all professional employees of a lobbying company have swipe card access. For example, according to their website Saunders Unsworth has five professional staff, but only two have cards. A further major deficiency is that it does not include some firms known to be part of the lobbying market. Lobbying firms that do not have staff currently on the list but have had previously include Silvereye Communications (employing eight people), Dart Government Relations (two people) and Acumen Republic (12). Taking into account firms previously with card access and still operating increases the market by around ten firms and by a much larger number of lobbyists.

The true size of the market is even larger. There are many lobbying firms and communications agencies which have never had access cards. An internet search for 'government relations firms nz' shows many such firms, including Exceltium, Boyd Public Relations and Adroite. And there are a number of recent new entrants to the market, including Barton Deakin and Hawker Britton.

Other significant sectors of the lobbying market are not represented. Many major law firms provide lobbying services (such as Buddle Findlay, Simpson Grierson and Johnston Lawrence). Chen Palmer, a leading specialist public law firm, has never had card access to Parliament but provides clients with services which most likely include lobbying (Chen Palmer, 2018).

Another sector absent from the list is NGOs. These organisations are often a significant lobbying presence during the legislative process. One explanation for this absence is that NGOs gain political influence through methods other than parliamentary meetings. How relatively important NGOs are is unclear, and it may be that Unsworth has overestimated the extent of NGO lobbying.

The card list is also not fully representative of the market because MPs can be lobbied outside Parliament. Lobbyists can use their contacts to instigate meetings or conversations with politicians without needing to regularly enter Parliament. Paid people can lobby government through phone calls, email, letters, and oral or written submissions. Thus, the number of paid lobbyists is likely to be by an order of magnitude larger than the parliamentary access card data suggests. Overall, the New Zealand lobbying market

> All lobbying firms that have previously had card access to Parliament consist of small teams of between one and a dozen or so employees, with one or two support staff and the bulk of staff being professionals.

may more closely resemble that of Australia, for example, than New Zealanders probably like to believe.

Additionally, the trend suggested by the size of the list of people with cards creates the impression that local lobbying has been through a boom–bust cycle. However, this perception is probably inaccurate. It is difficult to effectively gauge growth in the lobbying industry, but it is unlikely to be decreasing in size (as discussed above). Indeed, an experienced observer suggests that it is growing (Edwards, 2017, 2018b), a view supported by evidence of recent new entrants to the industry.

How do specialist lobbyists operate?
Based on their websites, firms offering lobbying services appear to be fairly uniform in how their services are structured and presented to customers. All lobbying firms that have previously had card access

to Parliament consist of small teams of between one and a dozen or so employees, with one or two support staff and the bulk of staff being professionals. As already noted, many lobbyists have previous work experience within government (Tyler, 2015, pp.13–14). The Frank Bold Foundation suggests that 'the single most valuable tool any lobbyist has is their contacts with and links to politicians and decision-makers' (Kwiatkowski, 2016). This experience is a selling point across all lobbying firms. Evidently, these ex-government employees maintain their contacts inside government once they leave, and cultivate their relationships to deliver policy results for clients. For some, this maintenance is aided by refreshing of their connections

labour is limited by the extent of the market' seriously, the recent market entry of partisan lobby firms Barton Deakin and Hawker Britton may be a further indication of the growth of the local lobbying industry, as it is now large enough to sustain left–right specialisation. Although their entrance into the market may signal a swing towards a partisan lobbying model more closely resembling the American or Australian markets, only time will tell if it is successful.

Current charge-out rates for lobbyists are unclear, but casual charge-out rates were reported as being in the vicinity of $400 per hour or $3200 per day in 2011, which suggests that comparatively high levels of remuneration are common

translation is so important, do public servants, on the other side of the divide, not hire such translators for all citizens, rather than only those who can afford them?

Due to the lack of regulation, it is difficult to know both who lobbyists act for, and whether lobbyists behave ethically. Investigative journalist Nicky Hager has shed light on the inner workings of government by detailing cases where lobbyists, public officials and organisations have worked together to coordinate misleading public relations campaigns: this is pure sand (see also Tyler, 2015, p.17). Hence, the claim that lobbyists always act in the public interest is demonstrably incorrect. The issue is how much of such behaviour occurs relative to socially useful 'translation' services, and how damaging the former is relative to the latter.

> Investigative journalist Nicky Hager has shed light on the inner workings of government by detailing cases where lobbyists, public officials and organisations have worked together to coordinate misleading public relations campaigns: this is pure sand …

via revolving door appointments, from lobby organisations to political staff and back (Edwards, 2018a). Some lobbyists make their way in from the other direction: current National Party MP Chris Bishop and former National Party MP Todd Barclay were both lobbyists before entering Parliament (Emanuel, 2018).

Another notable characteristic of the market is that not all firms solely offer lobbying services. Many firms also offer public relations, public law, strategic communications or crisis management as services. Indeed, perhaps to avoid the public stigma of 'lobbying', firms tend to avoid describing their work as such. Instead they tactfully choose to describe their work using terms such as 'government relations', 'influencing policy' or 'advocacy'.

Most firms operate across the political spectrum. However, if one takes Adam Smith's famous dictum 'the division of

(Dudding, 2011). Pay rates, billable hours, overheads and hence profitability are unclear.

What lobbyists actually do on a day-to-day basis to earn their coin and who they do it for is not transparent (see Tyler, 2015, pp.33–4 for a discussion of the possible range of activities which may be part of lobbying). Indications are that most clientele are businesses (Dudding, 2011). Mai Chen, a public lawyer who prefers not to identify as a lobbyist, says that lobbyists offer translation services between two groups, public policymakers and businesses, which speak different languages (Dudding, 2011; see also Emanuel, 2018). From this perspective, a large proportion of the work lobbyists do is grease, improving information provided to public officials. The translator metaphor raises a question of justice: who can and can't afford to pay for 'translation services'? And why, if

Should New Zealand regulate lobbying?

The OECD has advocated developing non-reactive and coherent regulatory approaches to lobbying in order to maintain and enhance public trust in the democratic process (OECD, 2009). The above discussion has examined the limited information on local lobbying. Acknowledging its limitations, it does not support the notion that the lobbying market in New Zealand is *sui generis*. Given what we know about local lobbying, is there then any strong reason why New Zealand should not follow OECD recommendations and implement well-considered, transparency-enhancing reforms?

Market-based lobbying is an area of human engagement where two opposing values come into contact and thus into conflict. The first value is that of the market, where one dollar equals one vote, and where dollars are unequally distributed across the population, local and international. The second is that of democratic citizenship, where, ideally, one adult citizen of a nation state has one vote and votes are equally distributed across the voting population (or, more broadly, hours available for non-market lobbying activities are roughly equally distributed across citizens).

There are further contextual factors in this conflict that are important. There has

been a worldwide rise in wealth inequality and shift in the functional distribution of income towards corporate profits in recent times (Piketty, 2015). This shift has also been taking place locally (Rosenberg, 2018). At the same time, an increasingly authoritarian and kleptocratic China is flexing its growing economic muscle in sophisticated efforts to influence domestic political processes, including in New Zealand (Brady, 2017).[4] Hence, lobbying activities – by increasingly wealthy individuals, by increasingly profitable local and multinational corporate entities and by increasingly anti-democratic nation states – are coming into growing conflict with notions of democratic citizenship. At the same time, with union membership in New Zealand declining from 42.9% of the workforce in 1991 to 17.7% in 2016, organised labour's countervailing lobbying power has been significantly eroded relative to the corporate sector (Ryall and Blumenfeld, 2017). These shifts in power have intensified, and likely will continue to exacerbate the ongoing conflict between market values and democratic citizenship.

There are good reasons to believe that lobbying may directly throw sand into the wheels of society, as well as indirectly undermining values underpinning democratic citizenship, and these problems are going to be larger in the absence of transparency. There are also reasons for believing that these problems are likely to become worse over time. Hence, action on these matters today is likely to be easier than action tomorrow, as growing vested interests will make stronger efforts to hide lobbying activities that are privately beneficial but socially damaging.

Low compliance cost approaches which provide the raw material for a better informed democratic citizenship and do not impose high costs on legitimate lobbying are likely to be the most appropriate policy responses. The OECD has recommended significant change in this area, change which occurs in a considered manner, unprompted by the heat of major scandal (OECD, 2009). Recent Green Party commitments to publish details of ministerial diaries and receipt of perks are to be applauded (Cook, 2018). There is no reason why such public disclosures should not be enforced by law

for all elected members of Parliament, as representatives of the people. Extension of this form of transparency to elected local government officials is also desirable.

In addition, it is time to again consider a register of lobbyists and their clients, adoption of a formal code of conduct along the lines of that in Australia, and regular collection and publication of data on who spends what on market lobbying. Again, this form of policy response is a relatively low compliance cost measure which makes the process more transparent, and thus more consistent with principles of democratic citizenship.

The publication of ministerial diaries, and the creation of a register of lobbyists and their clients and publication of the value of their spending would provide the

public with a body of pertinent information to enable them to better understand the decisions made by their elected representatives. Transparency will help citizens to better judge for themselves whether lobbying is socially valuable grease or anti-social sand in the democratic wheels.

Some level of regulation of the lobbying industry would also discourage unethical behaviour. Given New Zealand's high levels of transparency and relative lack of corruption (Transparency International, 2016), some might question whether even light-handed regulation of the lobbying market is necessary. One view is that regulation is unnecessary, because lobbyists are self-regulating and ethical (Dudding, 2011; Emanuel, 2018). Neale Jones, lobbyist for Hawker Britton, believes that because Wellington is a 'small town', lobbyists can't get away with what he calls a 'breach of faith'. Barry Saunders of Saunders Unsworth agrees, again seeing the small industry as self-policing. Jones insists that

he has rejected clients in the past on ethical grounds (Emanuel, 2018). Barton Deakin's website includes an 'Ethics' page, which states that the firm 'acts in the broader public interest in all its dealings with clients and governments' (Barton Deakin, 2017). Ethics statements are uncommon on other lobbyist websites. The insistence by lobbyists that they act ethically and that their industry is effectively self-regulating can be seen, not mutually exclusively, as honest, unbiased observation, self-interested business protection or cognitive dissonance about what they are doing. The lack of industry transparency means that separating the signal from the noise in these claims is impossible.

However, the creation of low compliance cost regulation, with a strong

> Given New Zealand's high levels of transparency and relative lack of corruption … some might question whether even light-handed regulation of the lobbying market is necessary …

transparency focus, would likely not be strongly objected to by those within the industry. In the report of the government administration select committee regarding the 2012 Lobbying Disclosure Bill, it was noted that most of the 103 submissions received 'supported [the bill's] intent of enhancing trust in the integrity and impartiality of democracy and political decision-making by bringing more transparency to political lobbying' (Government Administration Committee, 2013). Furthermore, lobbyists Jenna Raeburn and Neale Jones are not opposed to a register similar to those in Australia and Canada, since their firms' Australian operations have not been negatively affected by the mandatory register of lobbyists and their clients (Emanuel, 2018).

Lobbying may be grease in the wheel of politics, or it may be sand, or – perhaps inevitably – it may be a complex mixture of both. Although this study has produced some idea of the nature of the lobbying market, it is still unclear who lobbyists

work for and how they act, with little hard evidence available to illuminate the true nature of the industry. The key point uncovered is that citizens lack convincing evidence for sand or grease. This is why regulation is needed – to shine a brighter light on a currently shadowy industry which has significant long-term potential to corrode the integrity of the democratic process. The aim of regulation would also be to contribute positively to making the industry more about grease and less about sand. With multiple stakeholders, as well as the OECD, in agreement that well-designed regulation is necessary, the question must surely be: why not?

1 Information was obtained by viewing the LinkedIn pages of lobbyists who have been, or currently are, on the swipe card access list. Pages accessed 15 February 2018.
2 From https://www.statista.com/statistics/257340/number-of-lobbyists-in-the-us/, downloaded 20 March 2018.
3 From http://lobbyists.pmc.gov.au/who_register_lobbyists.cfm, downloaded 20 March 2018.
4 In this context, note that Saunders Unsworth advertise their services in a Chinese language section: see http://www.sul.co.nz/page/chinese-section.aspx. Whether they have clientele from China, as opposed to Chinese New Zealanders, and if so who they are and what they may be lobbying about is unknown. Silvereye also appear to have an advertised presence directed at China: see http://www.silvereye.co.nz/about-us/ (accessed 20 March 2018).

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Robert Ayson

The Ardern Government's
Foreign Policy Challenges

Abstract

With pressures growing on international rules, Jacinda Ardern's new government faces extra challenges in shaping a principled New Zealand foreign policy based on the consistent assertion of values. Many of these external challenges are being felt in Asia. Even if force can be avoided on the Korean peninsula, escalating tariff competition between the United States and China may signal deep challenges for the rules of the road that suit New Zealand. As the wider storm clouds grow, the Ardern government's focus on the South Pacific in cooperation with Australia offers some respite. But the Labour–New Zealand First coalition may complicate the delivery of predictable and creditable foreign policy stances.

Keywords foreign policy, security, trade, Asia, Pacific

New Zealand general election outcomes are seldom shaped by foreign policy debates. No exception to this rule is the changed political landscape which has produced Jacinda Ardern's Labour-led coalition government. The new prime minister's rise was propelled by domestic political concerns about housing, child poverty and income inequality. But the new coalition has also taken office at a time of serious doubt and fluidity in international politics.

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In its briefing document for Winston Peters, the incoming minister of foreign affairs, the country's diplomats made no bones about the challenges ahead: 'New Zealand is pursuing its interests in a turbulent environment where the risks for small countries are acute' (Ministry of Foreign Affairs and Trade, 2017, p.6).

This article provides a snapshot of some of New Zealand's leading international policy challenges and what these mean for Wellington's international policy preferences. As the reader will note, many of these external challenges are occurring in the Asia–Pacific region. This is not only the location for many of New Zealand's most significant interests. It is also the region where the Ardern government will need to work doubly hard to find partners sharing at least some of Wellington's international priorities.

Regional peace

The first of New Zealand's regional interests is the preservation of interstate peace in Asia. To this positive condition is closely linked the regional prosperity which has allowed New Zealand companies to pursue

trade and investment opportunities in a favourable regional environment. But at the time of New Zealand's general election in September 2017, concern was growing about a possible war over North Korea's accelerating nuclear weapons programme. The United States intelligence community was on the cusp of judging that Kim Jong-Un's regime could bring a nuclear-armed intercontinental ballistic missile back into the earth's atmosphere and deliver a nuclear weapon onto a continental American target. Newly inaugurated president Donald Trump had asserted that this North Korean breakthrough would not happen on his watch. And he seemed intent on doing more than matching Kim's outlandish rhetoric. Trump gave the appearance of being willing to use force to roll back North Korea's nuclear and missile ambitions.

Such a violent development could have grave implications for New Zealand and its regional partners. Even an initially limited use of force by the United States designed to destroy some of North Korea's missiles and warheads could lead to a quickly escalating armed conflict. Many expect that North Korea would respond with a barrage of artillery attacks on nearby South Korea at the very least. But if it believed that an American attack was imminent, North Korea might act first. And even if it waited for the US to initiate a conflict, North Korea might decide that it needed to use its nuclear weapons early before it loses the chance to do so.

As North Korea's ally, China would face some very difficult choices in any of these scenarios. If Beijing did enter a growing war, this would mean New Zealand's largest trading partner was involved in a violent conflict with the most powerful of New Zealand's traditional security partners. In the event that Australia came good on indications that it would support the United States should war break out (Dziedzic, 2017), New Zealand would have even less scope for staying on the sidelines, militarily as well as diplomatically.

It is a statement of the glaringly obvious that New Zealand's preference is for a negotiated settlement which avoids violence on the peninsula. Ardern's immediate predecessor as prime minister, Bill English, observed that an especially volatile example of Trump's rhetorical pressure on North Korea was 'not helpful'. This sentiment was noticed internationally (Nelson, 2017). As a middle ground between proper disarmament negotiations, which have often seemed unlikely, and the use of violent force, which seems potentially catastrophic, New Zealand has supported the use of economic sanctions to place pressure on Pyongyang. That also means welcoming any sign of US–China cooperation to facilitate that sanctions pressure, including in Trump's early interactions with China's leader Xi Jinping.

In her first speech on foreign policy since becoming prime minister, Ardern returned to a familiar Labour theme in relation to the North Korea–US stand-off: New Zealand's commitment to multilateral nuclear disarmament (Ardern, 2018a). This approach, she has suggested, gives Wellington a particular angle on this vexing example of nuclear proliferation. Her government can be expected to give even stronger attention to the nuclear disarmament treaty that the Key–English government supported at the United Nations General Assembly. But there is a long distance between this universalistic (and hopeful) approach and the particular kind of diplomacy Trump and Kim may have in mind if a meeting between them goes ahead.

Any such discussion is unlikely to resolve the conundrum of North Korea's desire to retain nuclear weapons as the best chance of regime survival and international leverage. Unless Trump pulls off a miracle (even less likely it would seem than Ronald Reagan's arms reduction progress with Gorbachev), we may be back to a more hazardous drawing board. With Trump's Cabinet becoming more hawkish since the departure of Gary Cohn, Rex Tillerson and H.R. McMaster, possibly only defense secretary Mattis would stand in the way of a risky use of force by the United States, which would likely end several decades of interstate peace in north Asia.

Regional prosperity

Armed conflict on the Korean peninsula would be a severe test for US–China relations. New Zealand's continuing hopes for regional stability have assumed significant common interests between these two great powers. This has been a plausible

> … both China and the United States have supported pathways to closer regional economic integration need not produce an economically competitive environment, forcing New Zealand to make all-or-nothing choices.

hope: Beijing and Washington have long had shared interests in Asia's remarkable economic expansion. New Zealand has also benefited from the choices made by the vast majority of Asian economies to embrace global trade and investment. Some of the most recent and largest of these benefits have come from China's increasing participation in global markets. But it has also been in New Zealand's interests for established Western economies, including the United States, to remain active in the region and remain committed to an open and rules-based international trading and investment system.

That both China and the United States have supported pathways to closer regional economic integration need not produce an economically competitive environment, forcing New Zealand to make all-or-nothing choices. Wellington's approach has been to embrace as many of these options as possible. Fears of overdependence on one large partner have been balanced by the commitment of the other: Wellington

would have found it more challenging to endorse China's Belt and Road initiative, for example, had it not been for America's active participation in the Trans-Pacific Partnership (TPP).

This favourable equilibrium was tested by the Trump administration's decision to withdraw the United States from the TPP process. In this new situation, Bill English's government was happy to accept the prospect of Japan, the largest remaining economy in the group of 11, becoming the TPP's unofficial leader. But National-led governments were unencumbered by serious doubts about the virtues of this high-profile trade agreement. This was not Ardern's situation. Labour was unhappy with some of the TPP's more contentious clauses, and its two political partners, New Zealand First and the Greens, held even greater reservations.

As America's commitment falters and the United Kingdom is consumed by Brexit, New Zealand will welcome signs that other liberal democracies are keen to sustain an open trading order.

In the final negotiations, which produced the more inclusively named CP (Comprehensive and Progressive) TPP, the Ardern government got some, but not all, of the changes it was seeking. This was a typical bargain where nobody emerged completely satisfied with the outcome. Even though the coalition has been engaging in a little bit of protectionism of its own, it was able to say that in supporting the revised agreement New Zealand remained a friend of economic openness. The risk had been averted that in her first major regional visit, to Vietnam for the APEC summit, the new prime minister would signal a significant reduction in New Zealand's role in regional economic diplomacy.

Yet some bigger clouds on the trade policy horizon may present New Zealand with a regional picture unknown to any of Ardern's recent prime ministerial predecessors. Donald Trump is now

threatening to impose tariffs on major trading partners with whom the United States has a deficit. Many of Washington's security allies – Canada, many other NATO partners in Europe, Japan, the Republic of Korea and Australia – have been on the receiving end of these threats, although some of them have sought exclusions for themselves. But all along Trump's big target was China, and as this article was being finalised the president was engaged in the early stages of what many fearful onlookers have depicted as an embryonic trade war.

Even if that more extreme situation is avoided, almost any level of tariff escalation between the United States and China is bad news for New Zealand's prospects. If these two leading economies define their economic relationship through a mercantilist lens, disregarding the mutual benefits of economic interdependence, the

signals for the world economy in which New Zealand makes its living will be unmistakably negative. When Trump was taking a protectionist line on the campaign trail, Xi claimed that China was the new champion of economic globalism. But the more that Trump tries to push China around, the more that Xi will be inclined to focus on China's prestige as a great power which can respond in kind.

In that sort of tussle, smaller, trade-dependent countries like New Zealand will worry about the future of a trading order based on restraint around common rules and understandings. And if Mr Trump decides that Washington can live without the World Trade Organization – the central pillar of that system of rules – one of the foundations of New Zealand's global connections will have been put at risk. It is hard to imagine a shift by Washington away from the fabric of global governance, aside from withdrawing from the United Nations

itself, which could attract graver concerns from Wellington.

Who is stepping up and stepping in?
As the United States steps back from international economic leadership, some of New Zealand's other leading partners have been trying to fill some of the vacuum. These include the European Union (EU) and Japan, who have agreed between themselves to a major free trade agreement. As well as the prospect of New Zealand–Japan free trade relations in a completed CPTPP, making progress towards a free trade agreement between New Zealand and Europe is part of the Ardern government's negotiating agenda. But this will take time and it will not be easy to extract the agricultural concessions that New Zealand will be seeking. Unlike the prospects for a bilateral free trade agreement with the United Kingdom, the EU trading relationship was not mentioned in the prime minister's big speech (Ardern, 2018a).

As America's commitment falters and the United Kingdom is consumed by Brexit, New Zealand will welcome signs that other liberal democracies are keen to sustain an open trading order. Wellington will not want its Western partners to leave the stage to China. Many of New Zealand's regional trading partners will remember China's important contribution to their economic futures 20 years ago during the Asian financial crisis. They would have suffered even more from the more recent global financial crisis, which began with a meltdown in US housing securities, had it not been for the engine of growth that China's economy has become. Like New Zealand, many Asia–Pacific countries are participating in China's Belt and Road initiative and Asian Infrastructure Investment Bank. These are further signs of China's growing clout.

Like its predecessors, the Ardern government will be attracted to the benefits that a growing China provides to New Zealand's region. But the era of American indifference to its international commitments poses additional challenges for this approach. If New Zealand's default strategy has been to say yes to initiatives from both China and the United States so as to encourage an equilibrium between

them, that strategy will now need to be revisited. There are now increased risks to New Zealand of being *seen* as beholden to China – and impressions count for a lot in these matters. But simply cutting back on connections with China is hardly an option. One can hardly imagine a New Zealand government that would decide, for example, not to seek an upgraded free trade agreement with Beijing.

Yet New Zealand cannot ignore the obvious signs that a more powerful China is producing complex and unsettling effects whose impact will increasingly be felt. The Communist Party of China, which now appears to have Xi Jinping as its permanent head, wants to silence alternative political voices. Its approach to freedom of expression and to the openness of the internet run contrary to the views of New Zealand and other democracies. The more that Beijing, sometimes in conjunction with Moscow, encourages other governments to celebrate non-liberal political norms, the less this will work for New Zealand's interests and values.

New Zealand has been somewhat cautious in taking public stands against non-democratic politics, at least when this means criticising great powers on their human rights records. The new prime minister's speech to the New Zealand Institute of International Affairs gave the impression of breaking new ground by indicating that under her government New Zealand would not hesitate to raise with China its different views on 'human rights, pursuing our trade interests, or the security and stability of our region' (Ardern, 2018a). But any notion that this represents a significant pushback on China is likely to be premature. There is no sign, moreover, that New Zealand is willing to join a US-led chorus identifying China as lying outside the international order.

Upholding international rules
This brings to mind the third main area of foreign policy challenge for the new government: how Ardern's team will approach the promotion and protection of the systems and groups of rules of international conduct which have served New Zealand's interests so well. This sits right in the middle of Labour's traditional foreign policy agenda. Support for

international law, negotiated settlements of international crises, a strong United Nations, and multilateral approaches to complex issues are all part of the foreign policy DNA that Ardern has inherited as the party's (and the country's) new leader. But the international rules, formally instituted as well as informally observed, that have worked so well for New Zealand are being challenged in multiple directions.

Many of these problems were documented by National-led governments of the Key–English era. For example, New Zealand's 2016 *Defence White Paper* drew attention to Russia's violation of the rules of sovereignty in its annexation of Crimea and intervention in Ukraine (New Zealand Government, 2016, p.32). At this time New

Zealand held one of the temporary seats on the UN Security Council, where it was an enormous struggle to get great power consensus on which restraints, rules and sanctions should apply to the various parties causing humanitarian distress in Syria. And the battlefield defeat of ISIS does not mean that transnational terrorism, and the damage it does to basic rules of justice and civility, has departed from the international scene.

Other challenges abound. The willingness and capacity of many states to accord refugees and asylum seekers their full rights under international law has been reduced as populist nationalism rises in many places, often in tandem with national security concerns. The fabric of arms control, which has helped regulate strategic relations between the United States and Russia, is under severe strain. Finding new rules for emerging areas of potential cooperation and competition is not being

made any easier in this divisive climate of international opinion. That includes, of course, climate change itself – although, in withdrawing from the Paris Agreement, the Trump administration has turned the United States into a solitary dissenter rather than a leader of a strong pack of holdouts. The emerging areas also include cyber security, where very different notions of government–civil society relations and rights are competing for influence.

Interstate relations in the Asia–Pacific region seldom emphasise formal rules and deeply institutionalised processes of negotiation. One might wonder if Wellington can therefore relax in the face of arguments that the rule-making and keeping part of the international order is

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being undermined. But a quick survey of regional developments suggests otherwise. For example, South East Asian multilateralism, to which New Zealand attaches great importance in its regional engagement (McKinnon, 2016, pp.31–3), prescribes the avoidance of force in international disputes along the lines of the UN Charter. And while China has preferred generally non-violent forms of pressure to pursue its aims in the South China Sea, its approach still clashes with widely understood views of Beijing's obligations under international law. Washington's criticism of China's approach, which has been stepped up in 2018, would be more convincing if the Senate had ratified America's signature to the UN Convention on the Law of the Sea, whose importance will only grow as competition for maritime influence and resources expands. While North Korea's nuclear and missile testing is in violation of obligations to the Security

Council, an American decision to use preventive force against North Korea would still be widely seen as contrary to international law.

Encouraging rules-based behaviour is also important closer to home. New Zealand's hopes for order in the South Pacific rest in part on regional consensus at the Pacific Islands Forum. This has made Fiji's challenge to that institution's prominence an issue of some concern. That consensus may be an important issue if the region is soon faced with unsettling political developments in New Caledonia and Bougainville. In terms of regulating the role of powerful external actors, establishing

on international relations since the Second World War. This doesn't mean Wellington has been unable or unwilling to accommodate new sources and types of rules and institutions. Even more importantly, it does not mean that as rising powers come onto the scene they have necessarily sought to replace existing systems of rules with brand-new approaches reflecting completely contradictory interests. Some of the apparent challengers to the status quo have done very well out of the existing rules: China's profitable embrace of economic globalisation is one such example. Another example is the liking that so many newer nation states

token, the make-up of the Ardern–Peters coalition may complicate New Zealand's ability to show solidarity with its Western partners on the challenges posed by Vladimir Putin's Russia to the rules of international conduct (Radio New Zealand, 2018).

Regional partners?

Quite who the Ardern government's main international partners will be is a particular challenge in Asia, where so many polities are becoming distinctly less progressive. The default answer, resorted to regularly by Wellington in the past, is to emphasise New Zealand's engagement with the multilateral forums which have grown up around the Association of Southeast Asian Nations. But in practice these forums have had a limited purchase on the region's most contentious and difficult issues, including maritime territorial disputes. Too many of the hard issues continue to be deflected in the search for consensus.

> For some time New Zealand has needed to boost and broaden its Asia–Pacific bilateral connections in Asia (beyond its strong relationships with China and the United States).

rules of the road for the responsible distribution of overseas aid monies by the major powers (including China) in the Pacific is a continuing priority for Wellington. This was hinted at, rather than directly addressed, in Winston Peters' speech in Sydney at the Lowy Institute for International Policy with the argument that New Zealand, Australia, the US and the EU (i.e. traditional Western donors) 'need to better pool our energies and resources to maintain our relative influence' (Peters, 2018).

Further south, New Zealand's interests are bound up inextricably with the Antarctic Treaty system, whose regulatory capacity is being challenged as several large states seek greater presence and possibilities for resource exploitation. An echo can sometimes be heard of Arctic developments, where climate change is opening up new navigation possibilities before there is consensus on how the new possibilities for competition can be managed.

In many of these issue areas New Zealand is a stakeholder in systems of rules that have often reflected Western influence

have for old-fashioned ideas about national sovereignty, a quintessential foundation of the system of states. And even when rising powers use the United Nations to pursue divisive objectives, they are still using a set of institutions that were part of the post-war consensus on the greater need for global governance.

This external environment poses some important questions for the values-based foreign policy that Prime Minister Ardern has been seen to emphasise (Sachdeva, 2018). On one hand, there is the question of which areas are most likely to be responsive to a degree of extra engagement by New Zealand, so that there is some effective action to go alongside the lofty rhetoric. On the other hand, there is the issue of who New Zealand's values-based partners are likely to be on any issue. At least on security issues, the Key–English years were marked by a growing emphasis on cooperation with New Zealand's Five Eyes partners. A Labour-led coalition government supported by the Greens would seem less likely to hold to that conservative assumption. By the same

For some time New Zealand has needed to boost and broaden its Asia–Pacific bilateral connections in Asia (beyond its strong relationships with China and the United States). Some of this was beginning to take shape in the later years of the Key–English era, but hardly in a revolutionary or surprising fashion. Enhancing New Zealand's already close relationship with Singapore, a leading interlocutor, has been one such priority. This will likely appeal to the new government, with the possible exception of the idea of basing Singaporean fighter aircraft in New Zealand.

The second priority has been Japan, touted in the last white paper as a fellow supporter of the rules-based order (New Zealand Government, 2016, p.34). This is an important country with which New Zealand's security relationship is relatively undeveloped. The prime minister has given little indication that Japan features prominently in her view of the world (Capie, 2018; McLachlan, 2018). How much her government will focus on Tokyo will depend partly on its appetite for risk, given the competition between Japan and China. It will probably make sense for New Zealand to be cautious about one of Shinzo Abe's signature foreign policy ideas: an Indo-Pacific strategic partnership between Asia's maritime democracies involving

Australia, India and the United States alongside Japan. The division of the region by regime type does not suit New Zealand's inclinations or interests; nor does the prospect of encouraging the perception that Wellington seeks China's containment.

Aside from these two partners, there aren't too many other obvious choices in Asia. South Korea has moved in a more progressive direction under President Moon, but is very focused on problems on the peninsula. In April 2018, New Zealand received a rare visit from an Indonesia president. The shortage of attention given to this important event (Rabel, 2018) indicates that we should not get carried away in any expectations for growth in New Zealand's relations with South East Asia's largest and most important country. Elsewhere the prospects do not seem especially bright. Malaysia, Thailand and the Philippines are beset by various domestic concerns. By comparison, Vietnam is remarkably stable, and has precious insights into the art of pursuing national interests during times of increasing geopolitical competition. But, despite the recent visit of Prime Minister Nguyen, there will be limits as to how much New Zealand would rely on a partnership with a one-party state in mainland South East Asia.

Australia's importance

All of this has one obvious conclusion. New Zealand's reliance on its bilateral partnership and alliance with Australia, still the most important relationship in Wellington's approach to the region and to the world, is unlikely to diminish. For the Ardern government, facilitating trans-Tasman cooperation in many areas of common interest remains the first priority for New Zealand foreign policy. This suggests that it will be necessary to ensure that policy differences between New Zealand and Australia do not get in the way of a broader desire for collaboration.

It is nothing new for Australia and New Zealand to adopt different approaches to the same foreign policy issue. If in the lead-up to last year's general election in New Zealand, Wellington and Canberra had been taking different views on the treatment by other countries of asylum seekers and migrants, this would hardly

be a significant issue for the trans-Tasman relationship. But New Zealand's insistence that Australia agree to its offer to take some of the migrants which Australia had located on Manus Island in Papua New Guinea was too easily seen as an attempt by Wellington to influence Canberra's domestic policy in a very sensitive area. This was compounded by concern within Malcolm Turnbull's government that the New Zealand Labour Party and the Australian Labor Party (both still in opposition) were in some sort of collusion at a time when the Liberal–National

coalition had a very delicate hold on power in the federal Parliament.

Jacinda Ardern came into office with an even stronger commitment to raise this issue than had been seen under Bill English. The passions some New Zealanders feel about Australia's treatment of asylum seekers had been compounded by concerns that New Zealand expatriates have been treated unfairly in their access to Australian government assistance. Australia's policies had become a larger factor within New Zealand domestic politics, and vice versa.

An early test of this problem came with Australian foreign minister Julie Bishop's visit to meet with her trans-Tasman counterpart, Winston Peters. Bishop was on record for suggesting before New Zealand's general election that the Turnbull government might find it hard to work with a New Zealand Labour government. But there were no obvious fireworks. Peters made possible an informal Auckland meeting between Bishop and Ardern, who would soon be in Australia to meet Turnbull and to reaffirm that Australia was 'New Zealand's indispensable international partner' (Ardern, 2018b).

The South Pacific: venue for a progressive turn?

At that very time, Peters himself was speaking in Sydney extolling Australia's role in the South Pacific as New Zealand's preferred partner there (Peters, 2018). This is one part of the world where New Zealand knows Australia depends on its involvement. Of course, the reverse is also true, and it applies beyond the immediate region, including currently in Iraq, where New Zealand forces are working with their Australian colleagues. But the profile of Australia–New Zealand collaboration

> … as students of New Zealand's foreign policy history also know, New Zealand's nuclear free crescendo also benefited from the existence of two major-power testers of nuclear weapons, France and the United States.

in their nearer neighbourhood depends partly on events. It would be churlish to suggest that what they both need is a Pacific crisis to remind them of their mutual dependence. And there are also always going to be risks of divergence. This could occur if an Ardern government is tempted to burnish its progressive credentials as a South Pacific leader which understands the concerns of small states in a way that a security-focused Australia may not.

One opportunity, which could also be a risk in terms of the Australian relationship, is to promote New Zealand as a champion of Pacific small state concerns about climate change. This might play well as a component of Ardern's argument that climate change is this generation's version of the anti-nuclear movement (Ewing, 2017). The part of that movement that grew in New Zealand drew on concerns about nuclear testing in the South Pacific. But as students of New Zealand's foreign policy history also know, New Zealand's nuclear free crescendo also benefited from the existence of two major-power testers of nuclear weapons, France and the United States. There is no comparable focus for

opposition in the case of climate change which can mobilise a corresponding level of resistance and energy. The problem is more diffuse. Persuading Washington to return to the climate change table, for example, is absolutely no guarantee of sufficient levels of mitigation of this global problem.

The recent history of New Zealand foreign policy also suggests that governments don't often get to choose in advance the crises and challenges around which their most important decisions will be made. Who in the Clark government when it came into office in 1999 would have thought that within two years New Zealand would be joining an international coalition in Afghanistan following a terrorist attack on the United States? The resulting improvement in relations between Wellington and Washington was the most important Clark-era diplomatic achievement alongside the completion of New Zealand's free trade agreement with China. We cannot tell from the state of the world in 2018 or from the make-up of the new coalition government what the Ardern era's main foreign policy contribution will be. It may not be a single thing. And it may be hardly noticeable. But to have encouraged New Zealand's Asia–Pacific partners to prefer peace to war, trade to protectionism, and the rule of law to the law of the jungle, even in small ways, might just be enough.

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Jo Spratt and Terence Wood

Change and Resilience in New Zealand Aid under Minister McCully

Abstract

This article studies the New Zealand government aid programme over the years of Murray McCully's tenure as New Zealand's foreign minister. The article uses quantitative and qualitative data to detail changes in New Zealand aid volume, sectoral and geographic foci, and quality. We argue that despite strong rhetoric from Minister McCully, change in some areas was surprisingly modest. Yet the minister had impacts in other areas, particularly on aid quality, foremost in the form of changes to the purpose of New Zealand aid.

Keywords foreign aid, aid policy, foreign policy, international development, MFAT

In the wake of the 2008 general election, Murray McCully became New Zealand's foreign minister. He was to stay in this role until May 2017, a term that makes him New Zealand's third longest serving foreign minister. As foreign minister McCully took an active interest in the New Zealand government's aid programme. In this article we draw from publicly available data sources to study Minister McCully's impacts on the New Zealand government aid programme. We first outline the organisational arrangement changes made in rescinding the aid programme's semi-autonomous status. Second, we make use of OECD and Treasury data to describe quantitative changes in New Zealand aid – specifically, the extent to which New Zealand's aid volume and effort, and regional and thematic foci, changed under McCully. We then explore McCully's impact on New Zealand aid quality, using data from the New Zealand aid stakeholder survey, the OECD and qualitative sources.

Our key findings are that McCully's impacts were less in some areas than might have been anticipated on the basis of either the minister's own rhetoric or the extent of controversy at the time. The minister did, however, have a significant impact in important ways. His organisational arrangement changes removed the aid programme's authority and autonomy in relation to other foreign policy, but they did not completely prevent the aid programme from functioning. McCully increased the aid budget, but much more slowly than promised. He had little impact on aid's concentration in the Pacific and aid to multilateral organisations, and, while some increase in aid for economic development occurred, it was not a radical transformation. However, the quality of New Zealand aid worsened under

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Figure 1 – New Zealand aid volume
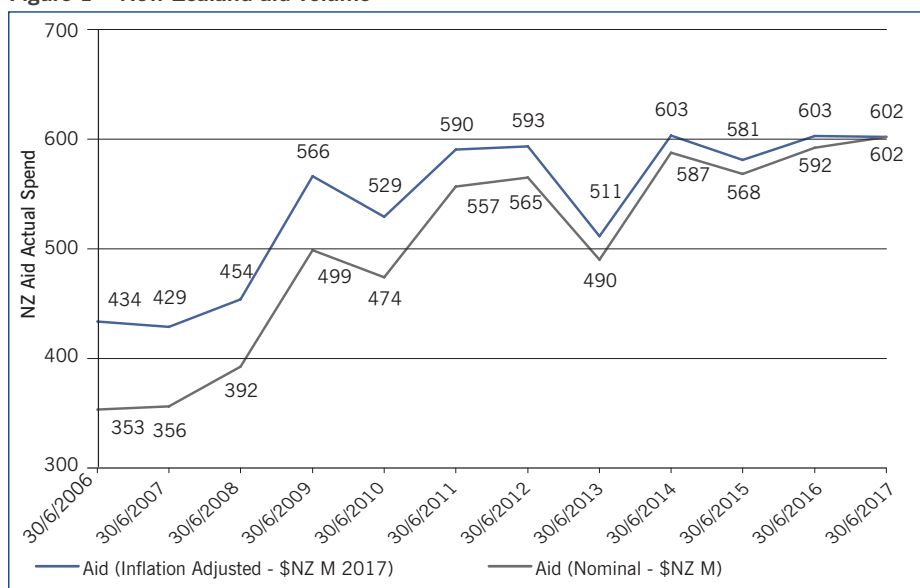
Note: data is from Treasury Budget documents.

Figure 2 – New Zealand aid effort (government aid/GNI)
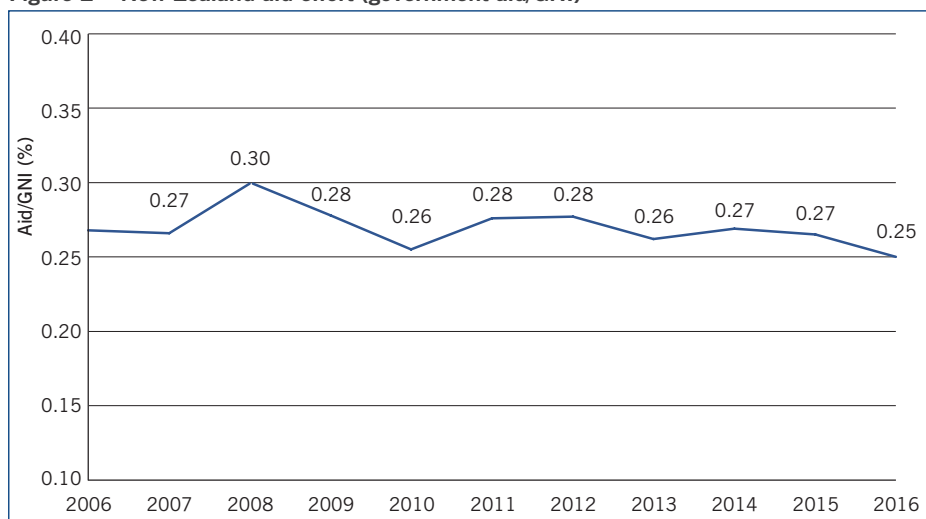
Note: data is from the OECD's OECD.stat database (OECD DAC, 2017).

McCully's tenure, driven in part by his approach to managing the aid programme and in part by his desire to align aid with other foreign policy areas. This latter change saw the purpose of New Zealand aid giving become markedly more oriented towards advancing New Zealand's interests rather than helping people in developing countries.

This article, it should be noted, focuses on the types of high-level change that can be tracked with publicly available data. The article also draws primarily on quantitative data. Because of this, subtler changes – such as shifts in the dynamics of the relationships that structure New Zealand aid work – are not captured in our study. Similarly, other areas for which there is no public data, such as aid programme staff turnover and staff morale, are not covered

here. To fully investigate changes in New Zealand aid more qualitative research would be very useful. Nevertheless, the data we have compiled enables us to identify important areas of continuity and change.[1]

Background to the changes

While opposition spokesperson on foreign policy, McCully signalled early on that he planned to do things differently. In a paper written with National Party colleagues he stated that '[f]resh thinking [was] required on development assistance strategy', and that '[t]he way ahead is not obvious but it does not lie in replicating failure' (McCully et al., 2007, p.8). Upon assuming the role of foreign minister, he wasted no time in making his desired changes, requesting Cabinet papers be produced to justify change before Christmas 2008 (Spratt,

2017). NZAID, New Zealand's semi-autonomous aid agency, was integrated back into the Ministry of Foreign Affairs and Trade (MFAT) (Cabinet Office, 2009a, p.2). The minister indicated that he planned to take a hands-on approach to aid programme management, deriding 'so-called development experts' and 'development specialists' (McCully, 2009, p.1, 2011, p.1). On the minister's recommendation, Cabinet agreed to increasingly concentrate aid in the Pacific region, and to make economic development the aid programme's core focus (Cabinet Office, 2009b, p.1). McCully also pledged to increase the government aid budget (McCully, 2009). He also indicated that New Zealand's aid work would be changed to 'be consistent with, and support, New Zealand's foreign policy and external relations outcomes' (Cabinet Office, 2009b, p.1).

From the outset these changes were controversial, prompting critique from NGOs, academics, the private sector and political parties (New Zealand Labour Party, Green Party of Aotearoa New Zealand, Progressive Party and United Future, 2009; Coates, 2009; McGregor et al., 2013; Banks et al., 2012; Overton, 2009), as well as former aid programme staff (for example, Adams, 2011) and the media (New Zealand Herald, 2009). Yet the extent and impacts of the changes varied considerably.

Aid's organisational arrangements

One area where the minister's desire for change had a clear impact was the organisational structure of the New Zealand government aid programme. In 2001, following a ministerial review of New Zealand's aid, the Labour–Alliance coalition government decided to establish a semi-autonomous aid programme. Called the New Zealand Agency for International Development, or NZAID, this agency was still attached to MFAT, but it had greater autonomy and authority on aid policy. NZAID had an executive director who could provide advice directly to the minister, and responsibility for its own human resources and policy development. In 2009 McCully dismantled NZAID and the aid programme once again became an operational group within MFAT.

As we discuss in a later section, some of the negative long-term consequences of this change were less than many feared at the time. However, there is no evidence that these changes improved the quality of New Zealand aid. And in the short term the transaction costs were significant. Human resources and internal systems required realigning. Existing aid and development policies were also removed, and it took until early 2010 for a single international development policy statement to emerge (Spratt, 2012).

Aid volume

Figure 1 shows the volume of New Zealand government aid over time.

Initially, McCully pledged to increase the government aid budget to NZ$600 million in 2012–13 (McCully, 2009). He subsequently pledged to increase aid to $621 million by the 2014–15 financial year (McCully, 2011). However, as Figure 1 shows, the rate of increase was much slower than McCully promised, with the non-inflation-adjusted aid spend only topping $600 million for the first time in the financial year ending 2017. As the inflation-adjusted line in Figure 1 shows, with inflation accounted for, the increase across his tenure was only $36 million – a very modest 6% in total over nine years. Plausibly, the minister's failure to deliver on promised growth in the aid budget might be explained by circumstances outside the minister's control, such as overall economic performance and the Canterbury earthquakes. However, this explanation does not fit with available evidence. The New Zealand economy grew at a more rapid pace than the New Zealand aid budget across the years that McCully was foreign minister. The government could have at least increased aid in line with economic growth, but this did not happen. This can be seen in Figure 2, which shows New Zealand's aid spending relative to economic performance, as measured by the standard international measure of aid effort, aid/gross national income (GNI). As a share of GNI, New Zealand's aid spend crept downwards during McCully's tenure.

Regional focus

Early in his time as foreign minister, McCully indicated that he wanted to

Figure 3 – Percentage of New Zealand aid spent in the Pacific
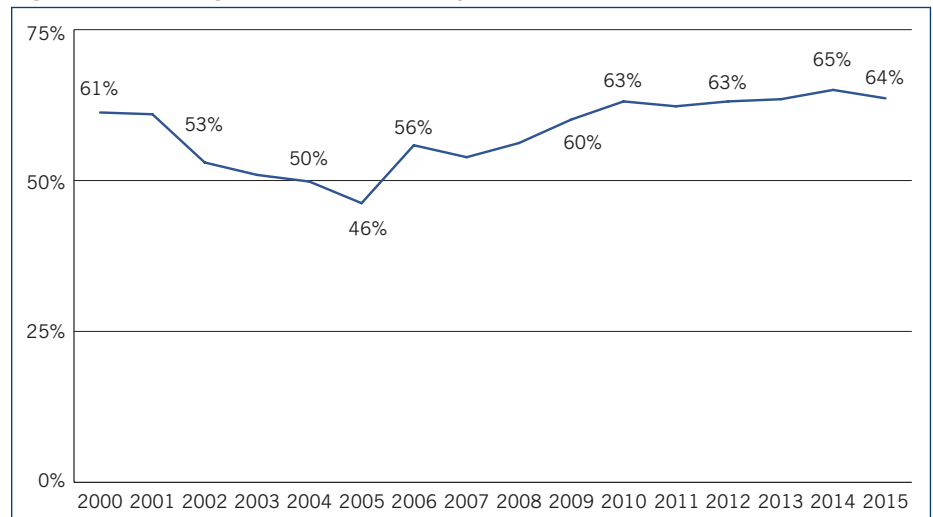
Note: data is from the OECD's OECD.stat database (OECD DAC, 2017). At the time of writing spending by region was only available from the OECD up to the end of the 2015 calendar year.

increase New Zealand aid's concentration in the Pacific (Cabinet Office, 2009b, p.1). As Figure 3 shows, New Zealand aid's Pacific focus did increase under McCully's tenure, yet the increase was quite small: four percentage points between 2009 and 2015. (2009 was the first calendar year in which McCully was able to exert an influence on country allocations.) Moreover, the increase was a continuation of existing trends. The particularly low aid share to the Pacific in 2003, 2004 and 2005 was a product of the Indian Ocean tsunami, and surges in aid to Iraq (2003) and Afghanistan (2004). Were it not for the tsunami, more than 50% of New Zealand country-allocable aid would have been spent in the Pacific in every year since the turn of the millennium.

Spending on multilateral organisations

In his final speech as minister to the New Zealand Institute of International Affairs, McCully spoke of his antipathy for multilateral organisations: 'These giant process-driven bureaucracies generally deliver a below-average quality of service to the poorer countries of the world, especially those in our region' (McCully, 2017, p.1) For some in the New Zealand media this comment was indicative of a hard line that McCully had supposedly taken on multilateral aid organisations throughout his tenure (for example, Watkins, 2017). Given such reported antipathy, it seems reasonable to expect that McCully's tenure as minister might

have brought with it a decrease in New Zealand aid funding going to multilateral organisations.

Figure 4 shows New Zealand government aid broken down by multilateral and bilateral spending.[2] In the years from 2000 to 2009, on average 23% of New Zealand aid was allocated via multilateral organisations. In the years since, on average 22% was allocated through multilateral means. McCully may have held strong views about the efficacy of multilateral organisations, yet these views do not appear to have had an effect on spending patterns.

Aid for economic development

One of the most controversial aspects of the changes that McCully brought to New Zealand aid was the decision to make economic development the aid programme's core focus. As Figure 5 shows, McCully's time as foreign minister did bring an increase in the share of New Zealand aid devoted to economic development.

Economic development's share of spending doubled from 15% in 2009 to 30% in 2015. Since 2011 economic development has been the largest sector. This is a substantial change, yet the change hardly counts as a wholesale trans-formation.[3] Change occurred, yet it was less than might have been anticipated on the basis of either the minister's statements or the public debate at the time.

Interestingly, the increased focus on economic development has not come at

Figure 4 – New Zealand aid spending bilateral versus multilateral
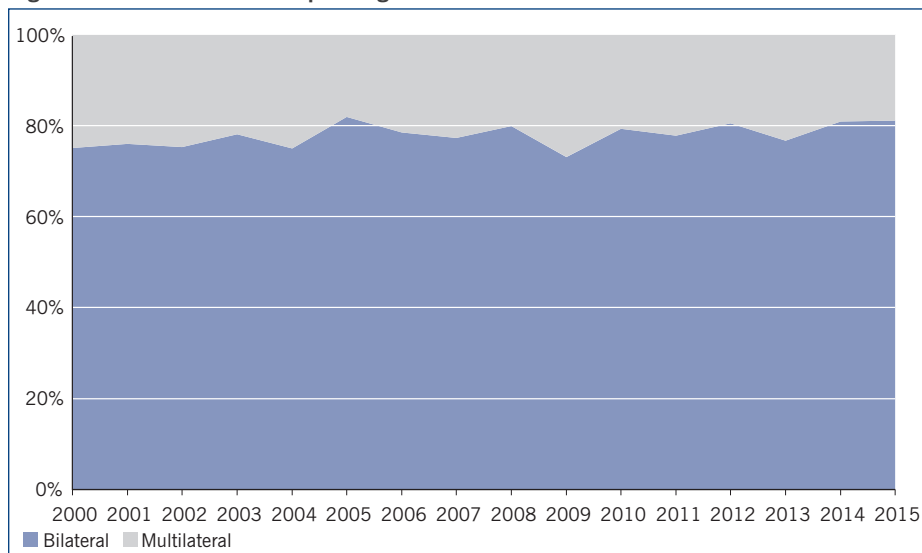
Note: data is from the OECD's OECD.stat database (OECD DAC, 2017). Spending type is only available up to the end of the 2015 calendar year.

Figure 5 – New Zealand aid spending by sector
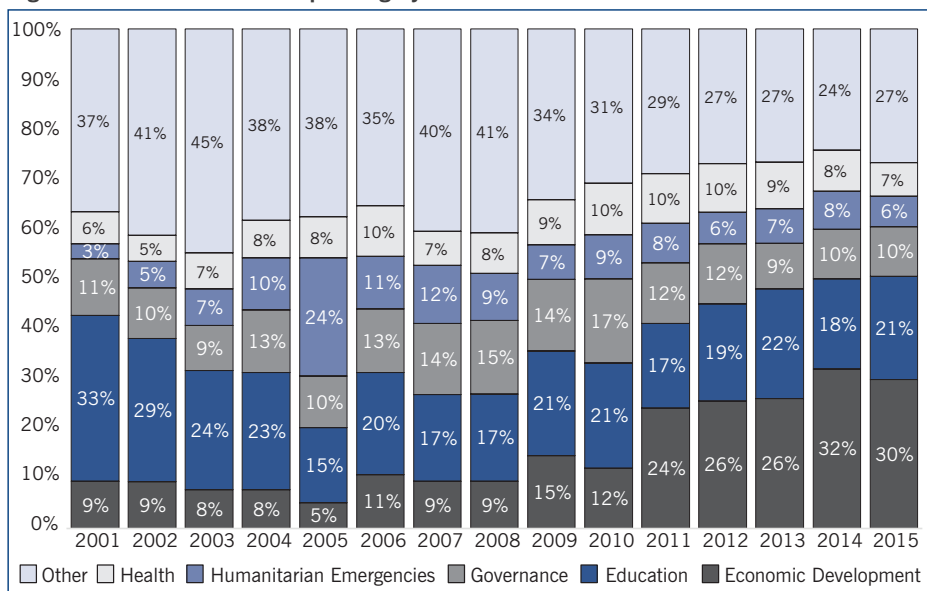
Note: data are from the OECD's OECD.stat database (OECD DAC, 2017). Spending by sector is only available until the end of the 2015 calendar year.

the expense of humanitarian assistance, or education. The share of spending devoted to improving governance and, to a lesser extent, health in developing countries fell, but the real loser was the 'other' category. This category is an amalgam of sub-categories. Analysis of these sub-categories shows that this fall was driven by a relative fall in aid allocated to the OECD category of 'unallocated/unspecified'. What this means is hard to interpret. One possible explanation is that previously uncategorised projects were recategorised as being related to economic development. If this has occurred, the extent of change in this area may actually be less than Figure 5 suggests.[4]

Aid quality

The 2015 New Zealand aid stakeholder survey (Wood and Burkot, 2016) surveyed senior managers in New Zealand aid NGOs and private sector contractors who worked regularly with the aid programme. It asked them a series of detailed questions about aid programme performance, both overall and with respect to specific aid programme attributes. While the sample of participants was comparatively small (62), all of the participants were well placed to assess aid programme performance, owing to their regular work with it. Significantly, the method affords detailed insights into aid programme functioning that are not readily able to be inferred through other

means, such as the analysis of aid flows (for a detailed discussion of the method and its strengths and weaknesses compared to other approaches, see Wood, Burkot and Howes, 2017).

By far the most positive finding from the 2015 stakeholder survey can be seen in Figure 6. A significant majority of respondents thought the aid programme was effective. Favourable appraisals of the aid programme were less common from NGOs than from the private sector, and when asked in a separate question about trends in aid programme performance, fewer than a quarter of respondents said they thought the aid programme was becoming more effective. Nevertheless, given the transition the aid programme went through with NZAID's dissolution, the effectiveness finding is an encouraging one. It also fits broadly with the high-level findings of the OECD Development Assistance Committee's peer review of the New Zealand government aid programme (Development Assistance Committee, 2015). To be clear, there is no evidence that the aid programme has been made more effective by the changes it has been through. Indeed, it may well be the case that effectiveness has deteriorated since 2008. Yet the finding remains encouraging in that the stakeholder survey data does not provide evidence of a catastrophic collapse in aid programme effectiveness.

However, the 2015 stakeholder survey also brought more worrisome findings. Chief among these was the fact that the majority of surveyed stakeholders thought that New Zealand aid was primarily focused on advancing the commercial and geostrategic interests of New Zealand, rather than on helping reduce poverty. This view was advanced not only by NGO stakeholders, but also by private sector stakeholders (Wood and Burkot, 2016, p.13).

Although geostrategic interests have always played some indirect role in guiding aspects of aid policy, in the years immediately prior to McCully's time as foreign minister there was no evidence of New Zealand giving aid to advance its commercial interests, and the purpose of New Zealand aid giving was considered a strength (Waring, 2005; Development Assistance Committee, 2005). The shift

under McCully to an increased focus on New Zealand's commercial and geostrategic interests emerged from the Cabinet decision to align aid with other foreign policy goals, of which, the minister stated, the most important element was the ability 'to align aid policy with trade policy' (McCully, 2009, p.1). The use of aid to advance New Zealand's commercial interests became evident in a number of aid projects. These included: bringing young South East Asian business leaders to New Zealand (New Zealand Aid Programme, n.d.-b); 'agricultural diplomacy initiatives' aimed at boosting relations between New Zealand and ASEAN agricultural agencies and agribusinesses (New Zealand Aid Programme, n.d.-a); and funding a costly dairy farming project in Myanmar which had little development justification but which brought potential commercial benefits for New Zealand (Spratt, 2012, 2013; NZADDs, 2013; Wood, 2012; Ministry of Foreign Affairs and Trade, 2012).

An increased focus on New Zealand's commercial and geostrategic interests came with costs for other aid work. For example, as Figure 5 shows, the share of New Zealand aid devoted to education did not fall during the years McCully was foreign minister. However, the nature of New Zealand's education spending changed to increasingly reflect New Zealand's non-development foreign policy aims, something that significantly reduced the share of funding available for development-oriented education spending. When McCully took the helm, New Zealand's aid for education was considered a strength, with systematic work being undertaken in a number of Pacific Island countries, particularly in primary education. This state of affairs reflected a profound shift from the beginning of the millennium, when most of New Zealand's education aid was focused on scholarships for tertiary study in New Zealand (Development Assistance Committee, 2005, 2000).

Tertiary scholarships have some development merit. However, there is no evidence that they are as efficacious in fostering development as improving primary and secondary education is. On

Figure 6 – Surveyed views on aid programme effectiveness
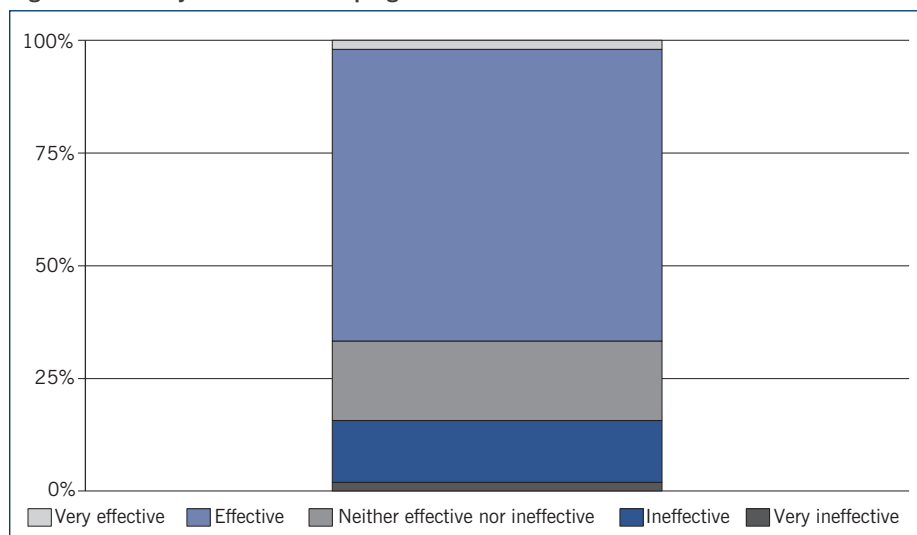
Figure 7 – Scholarship spending over total New Zealand education aid

the other hand, tertiary education scholarships are thought to bring benefits to donors who offer them. Scholarships bring people, often from the families of economic and political elites, from developing countries to donor countries, where it is hoped they will develop ties and relationships and acquire fond memories. Through this, it is hoped they will become potential advocates and supporters, and potentially business partners, in the future, thus bringing benefits to donor countries. Tertiary scholarships also bring revenue to donor country tertiary institutions and provide free advertising in potential markets (Development Assistance Committee, 2000, p.197). We estimate that at the turn of the millennium about 75% of New Zealand's education aid went on scholarships. By 2009, reflecting the

increased development focus of aid during the NZAID era, this figure had fallen to 41%.[5] Figure 7 shows a return to a scholarship focus under McCully. The situation in 2015 was not as bad as that of 2000. Nevertheless, the share of education spending devoted to scholarships was increased rapidly under McCully, rising 12 percentage points in just five years. This rise was accompanied by a concomitant decrease in the share of education funding going to other education types, particularly to primary education.

Changes to the purpose of New Zealand aid giving was not the only aid quality issue to emerge during McCully's term as foreign minister. One of the least positive findings of the 2015 New Zealand aid stakeholder survey came from answers to the question about funding reliability. As Figure 8 shows, while for-profit firms polled were fairly

Figure 8 – Predictability of funding
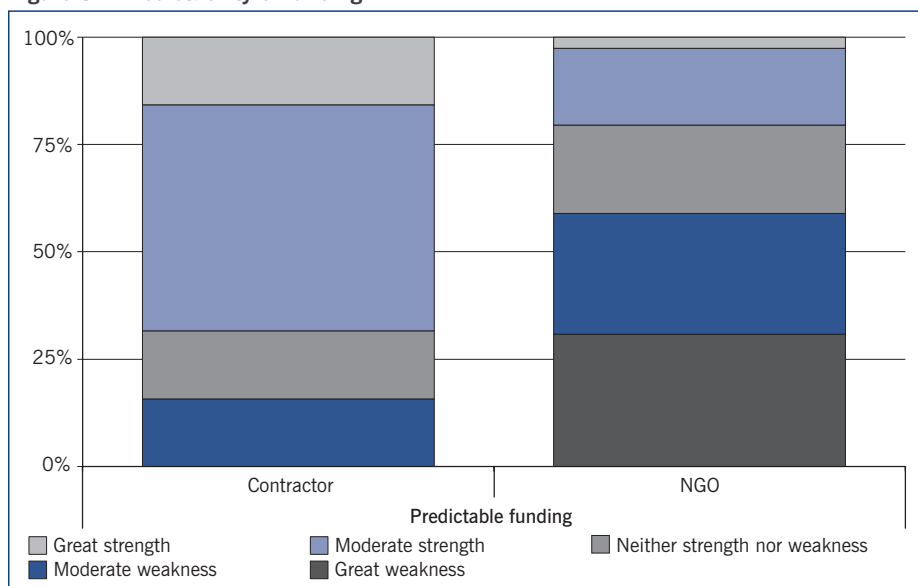
Note: the survey question asked respondents to rank the strengths or weaknesses of a range of aid programme attributes including predictability of funding. All Stakeholder Survey data can be downloaded from: http://devpolicy.org/wp-content/uploads/2016/03/2015-NZ-for-upload.zip

upbeat about funding predictability, the majority of NGOs thought this aspect of the aid programme was a weakness or a great weakness.

The response of NGO participants to this question is unsurprising. Early in his time as foreign minister, McCully chose to dismantle long-standing NGO funding mechanisms – one for humanitarian emergency assistance through NGOs, and one for longer-term development projects. The previously well-functioning humanitarian emergency fund for NGOs was replaced with a fund that was so poorly configured it took six months to release funding in response to famine in the Horn of Africa, only doing so once stories of its dysfunction made it into the media (Wood, 2011). The humanitarian fund was eventually repaired. However, one of the issues the most recent OECD Development Assistance Committee peer review of New Zealand aid highlighted was the fact that New Zealand still does not have a well-functioning generalised NGO funding mechanism for longer-term development projects (Development Assistance Committee, 2015).

Conclusion

Given Minister McCully's stated desire to change New Zealand aid, in many ways it is surprising just how little changed. The aid budget went up between 2009 and 2016, but its rate of increase was slight, less than the overall growth in the size of New Zealand's economy. Aid spending was increased to the Pacific, but once again the change was not large and a continuation of pre-existing trends. And, despite the minister's own reputed hostility towards multilateral institutions, the share of New Zealand aid to multilateral organisations did not fall in any meaningful way. The aid programme did become more focused on fostering economic development in aid-recipient countries. Yet this shift was not so large as to see economic development completely dominating the aid programme's work.

One lesson for scholars of aid policy from these facts is that some aspects of aid policy are remarkably resistant to change. Aid forms part of New Zealand's relationships beyond its borders, and these relationships place constraints on both what can change, and how fast. New Zealand could not, all of a sudden, start focusing all of its aid on the Pacific: doing so would have damaged other important international relationships, such as with Indonesia and Vietnam, both recipients of reasonable amounts of New Zealand aid and important emerging international actors. Similarly, it would have been hard to cease giving aid to Afghanistan, for example, without straining New Zealand's alliance with the United States. Dramatically reducing multilateral aid is difficult for similar reasons. A small country such as

New Zealand runs risks if it is seen to be free-riding in its multilateral engagements. Changing the sectoral focus of New Zealand aid is easier, but even here existing plans with recipient countries and with other donors such as Australia, with whom New Zealand tries to coordinate, place constraints on change. Similarly, the emphasis on aid's development outcomes that was cultivated within NZAID left an institutional legacy that initially enabled the aid programme to continue functioning quite well in altered political times, although this clearly did not entirely insulate the aid programme from the new environment, and the potential for further deterioration remains.

And yet McCully did not fail completely in his desire to transform New Zealand aid. He brought major structural change through his reintegration of NZAID into MFAT. And with this he shifted the purpose of New Zealand aid, placing increased emphasis on bringing geostrategic and commercial benefits to New Zealand.

We believe that the changes to the purpose of New Zealand aid giving were clearly for the worse. Public opinion data shows that most New Zealanders want their government's aid to be given primarily for altruistic ends (Wood and Burkot, 2016, p.11), and the ethical case for the world's wealthy nations devoting resources to helping poorer countries is compelling. We accept that to some extent geostrategic concerns need to play some role in how New Zealand engages as an aid donor, but we believe that in New Zealand's case such concerns can usually be met simply by being a good international citizen. Moreover, we see no reason whatsoever why New Zealand aid should be used as a subsidy for commercial interests.

Looking forward, from our perspective the resilience of New Zealand aid to change may prove to be both a blessing and a curse. Because McCully's changes were less than they might have been in some areas, the need to remedy his impact on the aid programme is less than it could have been. However, in the crucial area of the purpose of aid giving, he had an impact. And because the aid programme is now integrated into MFAT – a government department with a mandate to advance

New Zealand's interests – reversing this particular change may not necessarily come easily. Murray McCully's impact on New Zealand aid was less than it might have been, but his legacy may still outlast his time as foreign minister.

1 All the quantitative data used in this article can be downloaded from https://nzadds.files.wordpress.com/2018/02/change-and-resilience-data.zip.

2 The multilateral funding amount is based on the OECD's record of core multilateral funding and does not include funding given to multilateral organisations tagged to specific projects. When specific project funding is included, the share of funding going via multilateral organisations increases by about nine percentage points. However, there is no obvious change in trends when project-tagged funds are included.

3 The most recent aid programme strategic plan states that 45% of New Zealand aid will be spent on economic development by the end of 2018. This would represent a more radical change. However, the trends in Figure 5 do not indicate that the target will be met.

4 In analysis available in the online data set we looked at sectoral change with the 'other' category removed entirely.

When we did this the falls in the share of aid devoted to some of the non-economic sectors became slightly more pronounced, but the differences were not dramatic.

5 Our estimates are derived by using the accurate information on tertiary scholarships that has been reported from 2010 onwards and calculating the average ratio of tertiary scholarships to post-secondary education given in those years. We then applied this ratio to data on post-secondary education spending, which has been reliably reported on since 2000.

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Murray Petrie

Reversing the Degradation of New Zealand's Environment through Greater Government Transparency and Accountability

Abstract

This article proposes greater transparency in and accountability for environmental governance, addressing widespread concerns about the degradation of New Zealand's natural environment. It assesses national environmental reporting in New Zealand against a recognised international framework and compares the wider governance framework for environmental management with other policy domains, particularly fiscal policy. It proposes significant changes to the Environmental Reporting Act 2015, together with mechanisms to integrate environmental stewardship more effectively into the formulation of government strategies, policymaking and the Budget cycle, including a new chapter in the annual *Fiscal Strategy Report* on fiscal policy and the environment.

Keywords environmental governance, environmental reporting, environmental outcomes, transparency, accountability

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This article puts forward a new integrated approach to greater transparency and accountability for environmental governance, addressing widespread concerns about the degradation of New Zealand's natural environment and the sustainability of our current economic model. There is a wide range of possible approaches and levers that can potentially be used to achieve better environmental outcomes (Boston, 2018). The key elements of the proposed approach are two-fold: significantly augmented arrangements for ex post national-level environment reporting; and a package of new requirements for ex ante transparency of priority environmental policy goals and targets, systematic monitoring and reporting, and ex post accountability to Parliament and to the electorate. A number of changes are proposed to the Environmental Reporting Act 2015, together with mechanisms to more effectively integrate environmental stewardship into the formulation of

government strategies, policymaking and the Budget cycle, including a new chapter in the annual Fiscal Strategy Report on fiscal policy and the environment.

Problem definition

There is a broad and deep accumulated body of evidence and assessments that the quality of New Zealand's environment is deteriorating. This poses serious risks to the country's economic sustainability and to wider living standards and is largely due to policy weaknesses and flaws in the systems of governance of environmental management.

In brief, key sources of evidence are the following:

- degradation of natural capital: this has been especially pronounced with respect to fresh water quality and biodiversity (species extinction rates are among the highest in the world), as well as the major challenges New Zealand faces in reaching its Paris Agreement targets for greenhouse gas emissions, and is well documented in the briefings to the incoming minister 2017 prepared by the Ministry for the Environment and the Department of Conservation (see also Brown et al., 2015; OECD, 2017; Statistics New Zealand, 2017; Au and Van Zyl, 2018);

- New Zealand is reaching the environmental limits to its economic growth model (Productivity Commission, 2017; OECD, 2017);

- policy weaknesses and inconsistencies: failure to appropriately price natural resources and environmental externalities (e.g. fresh water, carbon emissions); lack of capacity for implementation of the Resource Management Act, and lack of enforcement of environmental regulations; inadequate data (Ministry for the Environment, 2017; Department of Conservation, 2017; Environmental Protection Authority, 2017; Treasury, 2018b; Brown et al., 2015; OECD, 2017);

- weak policy governance: lack of comprehensive frameworks for objective-setting and reporting (OECD, 2017). This is the subject of this article.

The key motivation is that the focus of successive governments has been on economic and fiscal outcomes, and to a

Figure 1: The DPSIR Framework for Reporting on Environmental Issues
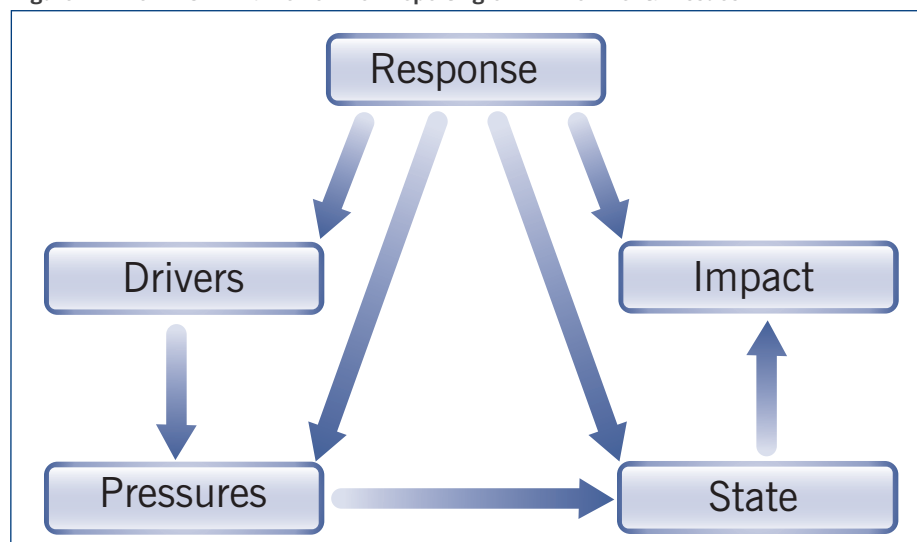
Source: from United Nations Statistics Division (n.d.)

much lesser extent on environmental outcomes (Boston, 2018).

National state of the environment reporting

While there is no current international 'standard' for state of the nation environmental reporting, a well-established framework is the 'drivers, pressures, state, impact, response' (DPSIR) model of intervention (Jackson, 2017, p.10). According to this systems analysis view, human activities or *drivers* (underlying natural and human-caused forces: e.g. population change and economic activity) exert *pressures* (immediate factors) on the environment that lead to changes in the *state* of the environment. These changes result in *impacts* on human welfare and ecosystems that may elicit a societal *response* from government and non-government actors. Responses (adaptation, mitigation) act on the driving forces, or on the state of the environment, or on impacts.[1] Figure 1 illustrates the framework.

New Zealand's first two state of the environment reports, in 1997 and 2007, used the DPSIR framework. However, the Environmental Reporting Act 2015 did not include either the 'drivers' or the 'responses' elements of the DPSIR framework. By comparison, Australia and most EU member countries use the full DPSIR framework. The Australian 2016 state of the environment report notes that the inclusion of information on drivers provides context for the pressures detailed in each of the reports.[2] Box 1 outlines the

key provisions in the New Zealand and Australian national environmental reporting laws.

New Zealand and Australia illustrate two quite distinctive approaches to environmental reporting: a large exercise only once every five years in Australia; and frequent reporting by domain in New Zealand, with a three-yearly synthesis report. Australian officials are understood to be considering more frequent reporting, while New Zealand officials are considering the desirability of less frequent reporting and better linkages across domains. There is also a desire to ensure greater clarity in the New Zealand Environmental Reporting Act on the purpose of environmental reporting.

One possibility would be to combine some domain reports, or even to move to a single report every three years covering all domains and a synthesis. This could be combined with brief annual score cards.

It is generally agreed that state of the environment reporting should exclude policy recommendations. The value of environmental reporting is in regular, independent technical data and scientific and policy analysis of the state of the environment and the effectiveness of responses to date. In 2014 the government concluded that: 'it may be difficult to report on policy evaluation in a way that is perceived as politically neutral' (Ministry for the Environment, 2014, p.20). This suggests that there may be constraints on the ability of officials to provide free and frank advice, and/or constraints on the

Box 1: Environmental reporting in New Zealand and Australia

New Zealand's first environmental report prepared consistent with the processes established in the Environmental Reporting Act 2015, *Environment Aotearoa 2015*, was published by the secretary for the environment and the government statistician in 2015 (although the report was published prior to passage of the legislation).[3]

The framework for environmental reporting, set out in the Environmental Reporting (Topics for Environmental Reports) Regulations 2016, divides the environment into five domains: air; atmosphere and climate; fresh water; land; and marine. Ecosystems and biodiversity are cross-cutting aspects that are considered in relevant domain reports and covered in each synthesis report.

A domain report is required every six months, and a synthesis report every three years. The 2015 report was a synthesis report across all five environmental domains. Domain reports have since been published on three of the five domains. Reports are due this year on land (April) and air (October), and the next synthesis report is due for publication in April 2019.

The framework used is pressures/state/impacts, but not 'drivers' or 'responses' from the DPSIR framework.

To provide assurance of independence from the government of the day, reports are developed and released in line with the principles and protocols in place for tier 1 statistics. Under section 18 of the act, the parliamentary commissioner for the environment may choose to prepare independent commentaries on the state of the environment reports (see Parliamentary Commissioner for the Environment, 2016).

In Australia, every five years the federal government commissions an independent review of the state of the environment, as required under the Environment Protection and Biodiversity Conservation Act 1999.[4] The most recent report was in 2016. Reports provide readers with:

- a comprehensive review of the state and trends of the environment;
- information about the pressures on the environment and the drivers of those pressures;
- information about the management initiatives that are in place to address environmental concerns, and the impacts of those initiatives;
- information about the resilience of the environment and the residual risks that threaten it;
- an overall outlook for the Australian environment.

Information is presented in nine thematic reports: on atmosphere, built environment, heritage, biodiversity, land, inland water, coasts, marine environment and Antarctic environment.

Assessments for different elements are graded. For instance, for pressures there are four grades of level of impact (very low impact, low impact, high impact, very high impact). Similar graded systems are used for change over time, for state, for trends, for management effectiveness, and for 'level of confidence' of conclusions.

public interest element of evaluation activities. The appropriate approach is not to leave 'response' out of the reporting framework, but to include it and attempt to ensure the technical independence of the response analysis.[5]

Finally, Australian state of the environment reports are required to contain information about the resilience of the environment and the residual risks that threaten it, as well as an overall outlook for the environment. These forward-looking elements are of central importance to understanding the state of the environment and designing policies. As the New Zealand parliamentary commissioner for the environment has observed: 'The significance of an environmental issue cannot be judged

without looking ahead.' She recommended that environmental reports 'should end with outlook sections as is done in Australia's state of the environment reports' (Parliamentary Commissioner for the Environment, 2016, p.45).[6]

Comparative policy governance
This section goes beyond environmental reporting to consider the wider framework for environmental governance, including ex ante transparency of goals and targets and reporting against them. It does so by taking a high-level view of governance arrangements in New Zealand for fiscal policy, and for monetary policy, in order to identify some fundamental elements of policy governance and to consider their

potential application to the governance of environmental policy. It also briefly considers environmental governance arrangements in Sweden.

New Zealand has very extensive and deep outcomes-focused management frameworks and accountability mechanisms for how governments manage fiscal policy and monetary policy. In fact, New Zealand was a pioneer in developing and implementing these frameworks. Table 1 assesses these frameworks against a set of recognised elements of target setting, monitoring and reporting. Table 1 also assesses state of the environment reporting and wider aspects of environmental governance in New Zealand, Australia and Sweden.

Table 1: Comparative policy governance

Stage in policy cycle	Parameter	Public Finance Act	Reserve Bank Act	NZ environmental governance status quo	Australian environmental governance satus quo	Swedish environmental governance status quo
Ex ante elements	Legislated outcome targets	No	Yes	No	No	[yes][7]
	Targets required	Yes	Yes	No	No	Yes
	Milestones required	Yes	Yes	No	No	Yes
Ex post elements	Technically independent monitoring reports	Yes	Yes	Yes	Yes	Yes
	Monitoring reports contain:					
	• Drivers	Yes	Yes	No	Yes	
	• Responses	Yes	Yes	No	Yes	
	• Forward looking data	Yes	Yes	No	Yes	
	• Risks	Yes	Yes	No	Yes	
	• Relative priorities	Yes	Yes	No	Yes	
	• Effectiveness assessment	No	No	No	Yes	
	Alignment with electoral cycle	Yes[8]	No	No	No	No
	Technically independent commentary	Yes	Yes	Yes	Yes	Yes
	Mandated govt. response	Yes	No	No	No	Yes

Sweden is recognised as a pioneer in transparency of national environmental goals, targets and progress reports. In 1999 Sweden created a system of environmental quality objectives (EQOs) which are set by Parliament but do not have legal status (OECD, 2014, p.40). There are 16 EQOs that describe the desired state of the environment, adopted by the government in 2012, and supported by milestone targets that specify concrete actions towards achieving them. In 2010 the government appointed an All-Party Committee on Environmental Objectives (comprising parliamentarians, external stakeholder representatives and experts) to advise on how the EQOs can be achieved. The EQO system engages government agencies at all administrative levels, with implementation responsibilities often residing at the subnational level. The prospects for achieving the EQOs are assessed each year to inform the annual budget bill and the government's annual progress report to Parliament.

Table 1 shows that, compared to arrangements for fiscal and monetary policy, there is a lack of requirements for ex ante transparency of environmental objectives and milestones and reporting against them. While New Zealand governments have bound themselves in law to a very high degree of transparency and accountability in other domains, they have generally not done so with respect to environmental stewardship – although in 2014 they imposed a requirement on regional councils to publish fresh water quality objectives by 2025. One exception to this is the framework for fisheries management, which contains most of the elements in Table 1. The prospective Zero Carbon Act will similarly introduce a high degree of ex ante and ex post transparency and accountability.

Of course, the central government's public finances are to an important extent under the government's direct control, in sharp contrast to environmental outcomes. Most regulation of activities is conducted by local governments – although the Crown-owned public conservation lands managed by the Department of Conservation comprise around one third of New Zealand's land area.

There are also formidable conceptual and measurement difficulties and gaps in data that help explain this divergence in management and accountability frameworks. There are current efforts to develop coherent multidimensional measurement frameworks for environmental management (e.g. natural capital accounting, integrated reporting, or summary indicators to supplement or replace GDP as a measure of performance). However, while new measurement frameworks will play an important role, they will take time to be developed, and putting estimates of monetary value on environmental stocks and flows will always involve debatable judgments, limiting their value in measuring progress or shaping policy design. On their own, without an ex ante element and accountability mechanisms, natural capital accounting and augmented measures of social progress seem likely to have limited impact on government decision making and accountability.[9]

Accordingly, there is a good case for amending the Environmental Reporting Act to require governments to respond formally to each state of the environment synthesis report, stating the government's assessment of the situation, its medium-term and long-term strategies, and

Box 2: Proposed changes to the Environmental Reporting Act 2015

1. Review the design and timing of reports to ensure a more appropriate balance between frequency, linkages between environmental challenges, efficiency, effectiveness, transparency and accountability, and review the purpose of environmental reporting as set out in the act.

2. Introduce the full DPSIR framework into the act, to include discussion of drivers of environmental pressures as well as ex post assessment of central government responses.

3. Require detailed geographical breakdowns for most environmental indicators, including breakdowns aligned with regional and territorial government boundaries.

4. Require forward-looking information on resilience, emerging risks and environmental outlooks.

5. Invite the parliamentary com-

missioner for the environment to indicate, in commentary on each state of the environment synthesis report, the critical few outcomes for priority government management in the next period, based on transparent criteria and reasoning.

6. Require a formal government response within a specified time to each synthesis report and to each independent commentary by the parliamentary commissioner for the environment stating the government's assessment of the situation, its medium-term strategies, and priority environmental outcomes with interim targets and milestones, and reporting on recent progress.

7. Change the timing of synthesis reports so that they are published, in the normal course of events, within a specific number of months of each general election.

Other amendments to the Environmental Reporting Act should include:

· requiring detailed geographical breakdowns for most environmental indicators, including breakdowns aligned with regional and territorial government boundaries, to indicate where environmental outcomes are of most concern and where they are not. While some environmental issues transcend local or regional government boundaries, many do not. Where they do this can be recognised through aggregated reporting;

· changing the timing of synthesis reports so that each three-yearly synthesis report is published, in the normal course of events, within a specified number of months of each general election (say, nine months prior to the last possible date for the election), to promote better informed public debate on environmental policies and trade-offs with other goals, and stronger accountability of government and Parliament to the electorate.

Box 2 pulls all the suggested changes to the Environmental Reporting Act together. The proposals in Box 2 should not be viewed as all or nothing. They could be introduced on a phased basis. For example, initial amendments could be made to the act to revise the design and timing of reports, introduce the full DPSIR framework, require disaggregated geographical reporting, and require a formal government response. The other proposed changes to the Environmental Reporting Act might be subject to further deliberation and planning.

Integrating environmental stewardship into routine government policymaking: a new chapter in the *Fiscal Strategy Report* on fiscal policy and the natural environment
While government regulation plays a key role in management of the natural environment, the lack of any overarching, aggregated approach to regulation (such as an annual regulatory policy cycle), and the lack of any national planning framework as is common in many other countries, means that the Budget cycle appeals as the best mechanism in New Zealand through which to integrate environmental stewardship into government strategy and policymaking.

priority environmental outcomes with interim targets and milestones, and reporting on progress in the period just completed.

Note that the proposed approach does not attempt to impose specific policy targets in law that reflect a particular view of how the trade-offs should be made between competing policy objectives. In an analogous manner to the Public Finance Act, the approach recommended relies on a legislative requirement for target setting and reporting, with the selection of the targets left to the political process.

It is, however, proposed that the parliamentary commissioner for the environment be invited to indicate, in commentary on each state of the environment synthesis report, the critical few outcomes for focused government

target setting, management, reporting and accountability in the next period. This should be based on transparent criteria and reasoning.[10] This is an attempt to draw on the professional expertise and independence of the commissioner to promote well-reasoned selection of critical indicators, while leaving final decisions to the government of the day. The incumbent government could choose additional outcome indicators as policy priorities – the statement would be a political document of the government – but would be legally obliged to include at least the core critical indicators, and to justify elevation of other indicators as priorities. This is analogous to the way in which the Public Finance Act obliges the government to justify departures from the principles of responsible fiscal management.

Furthermore, there are increasingly important interfaces between fiscal and regulatory interventions. Some regulatory instruments, such as tradable permits, have some of the features of fiscal instruments and require analysis also from a revenue policy perspective. In addition, some fiscal instruments, such as green taxes, are complements to regulation. There are also significant direct interactions between fiscal policy and environmental outcomes, both on the revenue side of the Budget, and on the spending side (e.g. the Department of Conservation's funding for management of the public conservation estate, and environmental protection expenditures).

Note that section 26M(2) of the Public Finance Act stipulates that the Budget policy statement must state the broad strategic priorities by which the government will be guided in preparing the Budget, including the overarching policy goals that will guide the government's Budget decisions, and the policy areas that the government will focus on in that year.

Similarly, one of the principles of responsible fiscal management in the Public Finance Act is that, when formulating fiscal strategy, the government must have regard to its likely impact on present and future generations (section 26G). This can be interpreted as referring to the intergenerational impacts of aggregate fiscal policy (e.g. deficits and net debt). However, it might also be argued that the environmental and social impacts of micro-fiscal policies (expenditure policies and tax system design) are also covered by section 26G, which would support the addition of a new chapter in the *Fiscal Strategy Report* on fiscal policy and the environment.

Finally, the Public Finance Act requires individual government departments to prepare statements of intent with multi-year strategies and non-financial performance information, but the central government as a reporting entity is only required to publish financial statements. Yet it really only makes sense to attempt to measure environmental stewardship, and

the government's contribution to well-being, at a whole-of-government level.[11]

Accordingly, there is a good case for including a new chapter in the annual *Fiscal Strategy Report*, which the Public Finance Act requires be presented with the annual Budget, that discusses the multiple points of intersection between fiscal policy and the environment. The chapter would desirably cover both tax and expenditure policies, the interfaces between fiscal and regulatory instruments, and the adequacy of funding of regulatory institutions, including local government capacity to implement the Resource Management Act and environmental monitoring functions.[12] The chapter would clearly require significant contributions from the Ministry for the Environment, Statistics New Zealand, the Department of Conservation, Inland Revenue and others, in close collaboration with the Treasury. An outline of the proposed chapter is in Box 3.

Such a proposal does not imply that fiscal policy is the main influence on

Box 3: Proposed outline of a new chapter on 'Fiscal Policy and the Environment' in the annual *Fiscal Strategy Report*

1. Current government environment strategies, outcome targets and milestones, and actual performance, focusing on the core critical environmental outcomes.

2. The latest data on trends in key environmental stocks and flows, and the policy implications; priorities for addressing gaps in data and monitoring systems.

3. An assessment and, to the extent feasible, quantification of the economic impact of recent degradation of ecosystem services (depreciation of natural capital) at the margin in a selected high-priority sector, or sectors, and the estimated cost of restoration of ecosystem services.[13]

4. Relevant case studies to illustrate the principles of integrated environmental management and assess current performance, e.g. fisheries management.

5. As feasible, an assessment of environmental resilience, short- to medium-term risks around key environmental outcomes, and threats to long-term sustainability.

6. Evidence on the environmental impacts of fiscal policies.[14]

7. An overview of the Department of Conservation's performance in managing the public conservation estate.

8. An overview of government investments in natural capital, and environmental protection expenditures, in the forthcoming Budget.

9. The anticipated positive and negative environmental impacts of the expenditure and revenue policies embodied in the forthcoming Budget.[15]

10. An assessment of the potential for government revenue and expenditure policies to improve critical environmental outcomes.[16]

11. The interactions between fiscal and regulatory policies in terms of environmental outcomes.[17]

12. A discussion of the levels of short- to medium-term risks around environmental outcomes in comparison with those around fiscal outcomes.

13. The consistency of government's environmental targets and announced targets in other domains, e.g. GDP growth, growth in agricultural production or tourism.

environmental outcomes (regulation is probably the key lever), but a new document in the annual Budget documents is another 'hand on the elephant', given the challenges and failures of environmental management and the lack of alternative mechanisms to link government strategies, interventions and outcomes.

This initiative would be fully consistent with the Treasury's Living Standards Framework, which has environmental quality as one of the key measures of current well-being, and natural capital as one of the four capital stocks that sustain well-being over time.[18] The proposal would also support and reflect the government's intention for the 2019 Budget to be 'a well-being Budget'.

Some implications of these proposals

It is recognised that these proposals involve substantial changes to current governance arrangements for environmental management. Space does not allow for anything more than brief identification of some of the more important implications:

- Significant increases would be required in the resources devoted to environmental monitoring and reporting, the development of central guidance, and local government capacity building. These expenditures should be viewed as investments in the essential infrastructure for environmental stewardship.
- There will be a need for new cross-agency integration and coordination mechanisms around specific cross-domain policy analysis and advice and reports.
- There may need to be changes to the structure and/or membership of parliamentary committees.
- New arrangements for cross-party political deliberation will be desirable, and wider stakeholder and general public consultation and engagement, to build consensus around the new frameworks over time.
- Similar issues arise with respect to the accountability frameworks and transparency of social outcomes, and the interface between fiscal policy and social outcomes.

Conclusions

The proposals advanced here for more effective environmental governance are based on greater transparency, with ex ante setting of goals, targets and milestones, and comprehensive ex post monitoring, reporting and accountability. These have become the familiar tools of public management in New Zealand, and internationally, since the fundamental government reforms of the 1980s and 1990s, as exemplified in how governments manage, and how Parliaments and the public hold governments accountable for, the conduct of fiscal policy and monetary policy. These frameworks have enjoyed consistent cross-party support and have proved sustainable to date.

The proposed approach does not attempt to impose specific policy targets in law that reflect a particular view of how the trade-offs should be made between competing policy objectives. In an analogous manner to the Public Finance Act, the approach recommended relies on a legislative requirement for target setting and reporting, with the selection of the targets left to the political process. The aim is to promote better-informed public and political deliberation over the current state of the environment and the policy choices open to New Zealand; in short, to promote 'more light and less heat' in the difficult trade-offs, and more sustainable decisions, as advocated by Darby (2017) with respect to decisions over natural resource exploitation.

The proposed initiatives are fully consistent with, and indeed strongly supportive of, a number of the initiatives being adopted and considered by the new government, including a Carbon Zero Act, the tax review, use of core indicators to guide policy, and framing the 2019 Budget as a well-being Budget. The proposals should not be viewed as all or nothing. They could be introduced on a phased basis.

There may be a prospect of cross-party support for this type of approach – which relies on transparency rather than putting specific policy targets in law – if not on introduction of legislation, then through acceptance of the new frameworks on the next and subsequent changes of government. Once introduced, fundamental

governance reforms based on transparency appear to be somewhat resilient to political cycles.

1. This model was developed by the European Environmental Agency: see Smeets and Weterings, 1999. The UN System of Environmental-Economic Accounting (SEEA), a 2012 international statistical standard for producing statistics on environmental stocks and flows and their relationship with the economy, is consistent with the DPSIR model – see United Nations Statistics Division (n.d.) p.4.
2. See https://soe.environment.gov.au/sites/g/files/net806/f/soe2016-approach-launch6march17_0.pdf?v=1489452161.
3. http://www.mfe.govt.nz/more/environmental-reporting/about-act.
4. Most states and territories in Australia also produce a regular state of the environment report, although approaches to reporting differ across jurisdictions.
5. To the extent that the response analysis entails judgments about the effectiveness of responses, this should be the responsibility of the Ministry for the Environment, not Statistics New Zealand; the latter does not have a role in evaluation activities.
6. See also Warren, 2018, for discussion of the need for forward-looking institutional arrangements and clear objectives for the management of the four capitals (economic, natural, social and human capital).
7. Targets are set by Parliament, but not in the form of legislation.
8. A pre-election economic and fiscal update is required by the Public Finance Act 20–30 working days prior to a general election.
9. 'Bear in mind that it will take many years, if not decades, for the various methodologies for measuring and valuing natural capital to be refined and properly applied. The full impact on policy making is some time away' (Boston, 2016, p.365).
10. The parliamentary commissioner for the environment noted in her 2016 report that: 'A state of the environment report becomes much more useful to the public and decision-makers when it provides a sense of the relative significance of different environmental issues.' She recommended that future reports should 'contain conclusions on the relative significance of different environmental issues. The conclusions should be made transparently on a reasoned basis' (Parliamentary Commissioner for the Environment, 2016, p.46).
11. These points are due to Ian Ball.
12. Note that this would promote realisation of the high-level principles of fiscal transparency, participation and accountability promulgated by the Global Initiative for Fiscal Transparency. High-level principle 4 states: 'Governments should communicate the objectives they are pursuing and the outputs they are producing with the resources entrusted to them, and endeavour to assess and disclose the anticipated and actual social, economic and environmental outcomes.' See Global Initiative for Fiscal Transparency, 2012.
13. This is conceptually and practically less demanding than constructing estimates of the value of natural capital stocks, and more likely to be relevant to current policymaking. This proposal is due to Peter Clough.
14. Including expenditure policies (direct spending, grants, loans, any contingent instruments); revenue policies (including tax expenditures); and other fiscal opportunity costs (e.g. non-auctioning of rights to pollute).
15. For example, summary results of full social and environmental cost–benefit analysis of any initiatives in the Budget.
16. Including, for example, through changes to the use of pollution taxes or resource rents. This is related to the requirement in the Public Finance Act for the government to provide, in the *Fiscal Strategy Report*, details of its revenue strategy, including the government's objectives for the tax system and tax policy (section 26L(1)(d)).
17. For example, the adequacy of funding of environmental regulatory functions, including of regional and local

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Jonathan Boston and Judy Lawrence

Funding Climate Change Adaptation
the case for a new policy framework

Abstract

Adapting to climate change poses unprecedented technical, administrative and political challenges for which New Zealand's current planning, regulatory and funding frameworks are ill-equipped. Without reform, they will deliver neither efficient nor equitable outcomes. Indeed, they will encourage governmental delay, incentivise sub-optimal solutions, increase future burdens, and reduce societal resilience. For sound anticipatory governance, our current frameworks need reform. This article summarises the nature of the adaptation challenges facing New Zealand, outlines the problems with current policy settings, identifies principles and considerations that should guide the reform agenda, and reviews several policy options. On balance, we favour creating a new national institution mandated to fund or co-fund, in accordance with statutory criteria, the major costs of adaptation.

Keywords climate change adaptation, funding, cost effectiveness, equity, anticipatory governance

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The task of mitigating climate change (i.e. reducing greenhouse gas emissions) has been called a 'super wicked' policy problem (Lazarus, 2009). But adapting to, and minimising the impacts of, climate change will be no less daunting (Mullan et al., 2013; OECD, 2015; Reisinger et al., 2014). Indeed, adaptation poses unprecedented technical, administrative and political challenges. In effect, policymakers are confronted not only with an unparalleled, slow-motion natural disaster, but also one that is destined to intensify in scope and scale as the century progresses. There will be multiple negative impacts: rising sea levels; more severe droughts and rainfall events; new biosecurity risks; an accelerated loss of biodiversity; and changing human disease vectors. Many of these phenomena will be outside the variability ranges previously experienced.

As an island nation, New Zealand will be particularly badly affected over the coming century and beyond by coastal erosion and inundation (Royal Society of New Zealand, 2016; Stephenson, McKenzie and Orchiston, 2017). Tens of thousands

of people – and perhaps more – will eventually need resettling on higher ground. Large investments will also be required to redesign, reposition and future-proof public infrastructure, especially transport networks and water services. Additionally, the damage caused by climate-related natural disasters will impose growing financial burdens – on citizens, businesses and public authorities. Already the annual cost of repairing land transport networks damaged by weather-related events has more than quadrupled over the past decade, while the economic impact of major floods and droughts is increasing. The series of major rainfall events which afflicted parts of New Zealand in early 2018 are merely a foretaste of what lies ahead. Likewise, the visibility of recent plant pathogens affecting our native trees (e.g. myrtle rust and kauri die-back), on top of the stresses our natural ecosystems are exposed to from the combination of exotic animal pests (e.g. deer, possums, stoats, rats and mice), are a portend for the future facing New Zealand.

Governments will face numerous policy challenges in seeking to reduce and mitigate such impacts. Many of the likely impacts are beset with 'deep uncertainty' (Walker, Lempert and Kwakkel, 2012; Walker, Marchau and Kwakkel, 2013), especially beyond mid-century. Policymakers will be faced with abrupt and unexpected biophysical changes; multiple, compounding and cascading risks (between and across sectors and domains of interest); the complexities of planning over extremely long time horizons; and complicated intra-generational and intergenerational trade-offs (Lawrence et al., 2013; Lawrence et al., 2016). Politically, too, there is an acute problem: the adaptation strategies needed to safeguard future interests will often entail significant upfront costs, not least to ensure that today's investments can be adjusted depending on the evolution of climate change. Moreover, while such costs are visible, direct and relatively certain, many of the benefits are indirect and much less certain. Concerted public opposition to prudent, proactive, anticipatory measures is thus inevitable; all the more so if those who face substantial losses are unable financially to make the necessary adjustments in a timely and just manner.

Are New Zealand's current funding, planning and regulatory frameworks, and their related policy tools and instruments, well designed to meet the scope, scale and duration of the challenges of climate change adaptation? In our view, the answer is unequivocal: existing arrangements are not fit for purpose. They lack the capacity to ensure sound anticipatory governance.[1] They will not deliver equitable or efficient outcomes. This article explains why. In so doing, it gives particular attention to the weaknesses in current adaptation funding mechanisms and how these might be rectified. Here we highlight only a selection of issues and consider a limited number of policy options. Our primary purpose is to

of adaptation measures or protection strategies adopted.

Based on a study of 136 major coastal cities, Hallegatte et al. (2013) estimated that, in the absence of additional protective measures, sea level rise and related changes to storm surges, floods and major storms could cost globally as much as US$1 trillion annually by 2050 and multiple times this figure by 2100. Likewise, Hinkel et al. (2014) estimate that if the sea level rises by 1.23 metres by 2100, and if no adaptation occurs, then up to 4.6% of the global population would be flooded annually, with expected losses of over 9% of global domestic product annually. Losses of this magnitude would be totally unsustainable.

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underscore the need for reform, rather than provide a fully-developed and compre-hensive policy approach.

The costs of climate change
Estimating the likely long-term costs of climate change poses significant analytical and technical challenges. Take, for instance, the costs of sea level rise, which is but one of the many anticipated impacts (Boettle, Rybski and Kropp, 2016; Hallegatte et al., 2013; Hinkel et al., 2014; IPCC, 2014). The expected costs will depend on numerous variables, including: the time frames under consideration; the path of global greenhouse gas emissions; the projected impact of global warming on the polar ice sheets, ocean currents and storm patterns; the assumptions made about the pattern and scale of future human development; the nature and types of risks considered and their related costs (e.g. direct and indirect, market and non-market); how losses (e.g. of land, buildings and infrastructure) are valued; and the kind

According to Hinkel et al., effective coastal adaptation measures, including managed retreat (see Box 1), can be expected to reduce these losses substantially (see also Reisinger et al., 2015).

There are no comprehensive estimates of the costs of sea level rise for New Zealand over the coming century. But an initial study of exposed residents, buildings and some infrastructure (i.e. roads, railways, port and airport facilities, and critical facilities or government buildings) by Bell, Paulik and Wadwha (2015) for the Parliamentary Commissioner for the Environment (2015) provides an indication of the scale of costs. For instance, it is estimated that at least 43,683 homes (or about 133,000 people) and 1,448 commercial properties are within 1.5 metres of the current average high tide in spring (Bell, Paulik and Wadwha, 2015).[2] The buildings affected have a replacement cost of about $20 billion (in 2011 dollars). Sea level rise of up to three metres would affect over 280,000 people and damage

buildings with a replacement cost exceeding $50 billion (in 2011 dollars). Public infrastructure, including transport networks, energy systems and water services, will also be significantly affected (e.g. coastal roads and numerous waste water treatment plants). Much of this infrastructure is the responsibility of subnational government and some of it has not been well maintained (Office of the Auditor-General, 2014).

Several matters are clear: a) the costs will increase in a non-linear manner (i.e. as seas rise, the costs will rise even faster); b) the costs will be greater if global emissions peak late and then fall slowly; c) the costs will escalate significantly as the century advances; d) the costs will be

> ## Fortunately, the impacts of climate change and their related costs can be reduced by preventing further housing developments in risky areas, relocating existing settlements, and prudent investments in more resilient infrastructure.

greater if urban development continues in areas exposed to rising seas and inundation; e) the costs will fall unevenly geographically and intermittently; and f) the costs will be greater if governments (national and subnational) fail to plan and invest in effective risk reduction and adaptation initiatives.

Aside from sea level rise, New Zealand faces many other climate-related costs. For instance, insured losses due to extreme weather events were $175 million in 2013 and $135 million in 2014 (Insurance Council of New Zealand, 2017). The Treasury estimates that the drought in 2013 cost New Zealand around $1.5 billion. Meanwhile, the cost of repairing land transport networks damaged by weather-related events continues to increase, quite apart from the ongoing disruption to people and the economy.

Fortunately, the impacts of climate change and their related costs can be

reduced by preventing further housing developments in risky areas, relocating existing settlements, and prudent investments in more resilient infrastructure. Significantly, Local Government New Zealand estimates that $1 spent on risk reduction saves at least $3 in future disaster costs by avoiding losses and disruption (Deloitte Access Economics, 2013). Some international estimates of the likely savings are substantially higher (Healy and Malhotra, 2009). But there is a problem: public expenditure on *pre-event risk reduction* is much harder to 'sell' politically than the funding of *post-disaster recovery*. Voters, it seems, reward governments that spend money on disaster relief, but not those investing in prevention and

preparedness (ibid.). This phenomenon is common across advanced democracies. It reflects humanity's cognitive biases, including myopia: citizens tend to value post-event cures over preventative interventions (Boston, 2017a, 2017b; White and Haughton, 2017). Finding ways to counter such propensities will be crucial over the coming decades. Otherwise, there will be many sub-optimal policy decisions – ones that increase and entrench risk exposure, thereby placing additional burdens on future generations. This works in the opposite direction to what effective adaptation requires, namely to reduce risk now and for the future.

The problems with current funding, planning and regulatory frameworks

New Zealand's current policy frameworks are poorly equipped to address the nature, magnitude and duration of the problems posed by climate change (Lawrence, 2015,

2016).[3] We address the most obvious limitations and deficiencies here.

First, while local authorities in New Zealand have various proactive legislative responsibilities to reduce the risks posed by natural hazards, including the effects of climate change, the relevant statutes (e.g. the Resource Management Act 1991 (RMA), the Soil Conservation and Rivers Control Act 1941, the Civil Defence Emergency Management Act 2002 and the Building Act 2004) are poorly aligned. For instance, whereas the Building Act focuses on a 50-year time frame, the New Zealand Coastal Policy Statement issued under the RMA requires local authorities to look forward 'at least 100 years'. Additionally, the various legislative and regulatory requirements are not being applied consistently by decision-makers. Some local authorities have been much more proactive than others. Guidance and support from central government has been generally insufficient.

Second, notwithstanding their responsibilities to mitigate long-term risks, many local authorities, often under pressure from property developers, have been approving major new subdivisions and other developments in areas that are likely to be vulnerable to rising seas later in the century (see, for example, Gibson and Mason, 2017). This suggests that current policy frameworks and regulatory standards may need adjustment, or at least that ways must be found to ensure that councils use their available powers more effectively to safeguard future interests.

Third, the existing policy arrangements focus too much on *post-event* responses (e.g. post-disaster assistance and recovery) and too little on *pre-event* responses – that is, public funding designed to enhance societal resilience, minimise risk, and enable cost-effective adjustments and transitions. Hence, New Zealand has a Natural Disaster Fund (administered by EQC) and an Adverse Events Fund (administered by the Ministry for Primary Industries to assist rural communities), but no equivalent dedicated funds to reduce risk exposure (i.e. arising from climate change). Similarly, there are different national-level policies for repairing and future-proofing local government infrastructure. For instance, the national

civil defence plan provides for central government to contribute up to 60% of the costs of repairing underground water and sewerage services after a catastrophic event, but there are no similar guaranteed contributions for future-proofing infrastructure.[4]

Fourth, and related to this, the provisions in most household insurance contracts (and related EQC cover) do not provide for 'betterment'. This means, for instance, that an insurer will repair a home which is at risk of future flooding but will not contribute to the relocation of the home or the construction of a new home on a safer site. As a result, risk exposures have become entrenched. Eventually, some residents will be unable to secure adequate insurance for their properties.

Fifth, regarding the overall role of insurance, it is sometimes argued that governments should rely on private insurance markets, the pricing of risk and individual self-interest to generate the desired adaptive responses by citizens to climate change. But insurance merely redistributes and transfers risk; it does not lessen it. Hence, while insurance is a desirable – indeed vital – complement to robust risk management, it is no substitute for it. Moreover, the limitations of insurance markets will be exacerbated as risk profiles change over coming decades (IPCC, 2014; Kunreuther and Lyster, 2016; Storey et al., 2017; O'Hare, White and Connelly, 2016; Treasury, 2015).

Finally, aside from the post-event focus of much disaster-related funding, there are multiple other problems with existing funding arrangements for adaptation:

· Currently, local government owns and manages at least $120 billion of fixed assets (including 100% of the country's drinking water, waste water and storm water assets, and 88% of the roads) (Office of the Auditor-General, 2014). But there is a gross mismatch between the resources and capabilities available to local authorities and the scale of their adaptation challenges. For instance, many communities (e.g. Dunedin, the eastern Bay of Plenty and the West Coast of the South Island) face the prospect of relocating significant numbers of people by mid-century, but they lack the capacity (via their rating

base and borrowing limits) to fund large-scale relocation of affected assets and communities, the purchase of land for resettlement, and the construction of new infrastructure. More generally, many local authorities – and especially those with ageing populations – will struggle to raise the capital necessary for renewing, upgrading and future-proofing their public infrastructure.

· The current mechanisms through which the central government provides financial assistance to communities, businesses and households affected by natural disasters tend to be ad hoc and inconsistent. For instance, in response

to the severe flooding of Edgecumbe in the Bay of Plenty in 2017, where around 70% of the town's properties were damaged, the government announced that EQC would be responsible for cleaning up and repairing all affected properties, including the 100 or so that were not insured or where the owners lacked the necessary funds to undertake repairs. Residents in many other communities similarly affected by severe flooding have not always been so fortunate. Meanwhile, special arrangements were made for the many thousands of Christchurch residents whose properties were 'red-zoned' as a result of the major earthquakes in 2010–11.

· Leaving aside the inequities caused by inconsistent Crown 'bailouts' following natural disasters, bailouts cause several other problems. First, they raise public expectations of continued structural protection and funding assistance. This creates a high degree of path dependence, at least politically, and

perpetuates lock-in of communities in risky areas. Second, it generates a potential 'safety paradox', where communities are lulled into a feeling of safety which can then rebound on public authorities when the next 'disaster' happens.

· There is no current consistent and centrally managed mechanism for funding the costs of managed retreat (see Box 1). As a result, local authorities are attempting to develop their own approaches. But these will generate inconsistencies and inequities across New Zealand. Moreover, without a fair, consistent and nationally mandated

Adaptation funding arrangements which seek to reduce exposure to climate change risks should have two overarching goals: long-term cost minimisation and equitable burden sharing.

approach to adaptation funding, affected residents are likely to resist locally crafted proposals for managed retreat. This poses at least three problems: a) the risk of lengthy and expensive legal proceedings; b) the prospect of prevarication and long delays in decision making, thereby intensifying risk exposure, exacerbating future damages, and increasing the overall long-term costs of adjustment; and c) the likelihood that residents will demand the construction of hard structures to protect their properties; in many cases such structures will not be cost-effective and will offer only temporary protection.

· There are no mechanisms to ensure that the costs of climate change adaptation are shared equitably, whether intergenerationally or intra-generationally.

In short, current regulatory, planning and funding arrangements are not adequate for the policy challenges posed by climate change. This applies not only

Box 1: Managed retreat

Technically, 'managed retreat' has been defined in a coastal setting as 'the application of coastal zone management and mitigation tools designed to move existing and planned development out of the path of eroding coastlines and coastal hazards' (quoted in Hino, Field and Mach, 2017, p.1). It is deliberate, coordinated and planned. The aim is to reduce natural hazard risk permanently, rather than temporarily. According to Hino, Field and Mach, over the past three decades approximately 1.3 million people in 22 countries have been relocated – in both pre- and post-disaster contexts and both voluntarily and involuntarily – through managed retreat. While significant, this is a tiny number compared to the scale of displacement expected during the 21st century and beyond (which will affect hundreds of millions globally).

Understandably, managed retreat is often viewed as complex and controversial, partly because of the financial costs, but also because of the more intangible costs – the loss of 'place', the social, emotional and psychological challenges of displacing people from their homes, the disruption to community life, and the loss of buildings or land of architectural, aesthetic or spiritual value. However, managed retreat can be implemented in a staged and progressive manner, as 'managed' suggests, preferably through community engagement processes that can address the sense of loss of place and value.

An example in New Zealand where managed retreat has been implemented is Twin Streams in Waitākere, Auckland (Vandenbeld and MacDonald, 2013). Voluntary property purchase was offered within an inclusive participatory process across the community which linked environmental, social, economic and cultural goals by providing new public resources and accommodating those who moved to other areas. The availability of a regional fund enabled the retreat from flooding to be implemented.

Managed retreat options are being considered currently as part of a suite of adaptation options in two coastal localities. In Matatā in the Bay of Plenty a voluntary retreat option has been included after ten years of investigations following a weather-induced debris flow that engulfed a coastal community.[5] For voluntary retreat, landowner support will be essential for any property purchase arrangements. If retreat were to be enforced, empowering legislation is likely to be required. Funding to incentivise implementation is beyond the means of most district councils, which means that regional and central government funding would be required. Other issues make implementation difficult: rating equity; confirmation of retreat boundaries; availability of affordable alternative building sites; existing use rights; planning issues; and property purchase criteria.

In the second case, the Clifton to Tangoio Coastal Hazards Strategy 2120 in Hawke's Bay included managed retreat within adaptive pathways for the medium-to-long term in a year-long community engagement process that has recommended adaptive pathways to the three participating councils for implementation.[6]

to the problems generated by sea level rise and more severe rainfall events, but also to many of the other impacts that climate change will generate (e.g. the impacts on agriculture, aquaculture and fishing resulting from warmer temperatures, more severe droughts and ocean acidification). Without appropriate reforms, existing policy frameworks are destined to increase, rather than reduce, risk exposure, exacerbate future adaptation costs, and contribute to multiple inequities. In the interests of sound anticipatory governance, a better framework is required.

Funding climate change adaptation – guiding principles

Any new policy framework for climate change adaptation must be guided by sound principles. Adaptation funding arrangements which seek to reduce exposure to climate change risks should

have two overarching goals: long-term cost minimisation and equitable burden sharing.

1. *Long-term cost minimisation* – funding arrangements should seek to minimise the long-term net costs of climate change adaptation by encouraging cost-effective decisions regarding district planning and investment in public infrastructure. The aim would be to reduce the likely costs of climate-related impacts (e.g. from major floods) through cost-effective measures to future-proof infrastruc-ture and undertake managed retreat. Successful adaptation will, in turn, help to reduce future insurance (including EQC) costs, thereby keeping insurance more affordable and available. Consistent with this, funding arrangements, and related planning and regulatory frameworks, must be well-coordinated and designed to minimise moral hazard

(e.g. the risk of giving individuals, companies or other organisations incentives to act in ways that are likely to increase overall adaptation costs and/or shift costs inappropriately onto taxpayers or ratepayers).

2. *Equitable burden sharing* – funding arrangements should be consistent with widely accepted principles of social equity (or distributive justice) (Kunreuther and Pauly, 2017). Such principles include the fair opportunity requirement. This is the idea that people should not be discriminated against or suffer disadvantages for things over which they have little or no control. Such a principle provides an ethical basis for funding assistance for people who suffer an accident or are harmed by a natural disaster which could not have been reasonably foreseen or avoided. Another relevant principle is that of 'comparative justice'

or 'like treatment': cases that are alike in all relevant respects should be treated alike; where cases differ, 'material principles' of justice can be applied to determine the extent to which, and the means by which, differential treatment is justified. These include considerations of need, the capacity to pay, and various notions of moral responsibility (Miller, 2007). One of the latter, known as 'outcome responsibility', is the idea that people (and public authorities) should bear responsibility for their own actions and decisions. Another is the idea of 'remedial responsibility': this responsibility arises whenever there is a situation needing a remedy. If those who have caused the harm are in a position to rectify the problem, then they have a moral responsibility to do so. If they unable to, but there are others with the requisite capacity (e.g. a central government), then the remedial responsibility falls to those who are most capable. Regarding the costs of climate change adaptation, the relevant principles of distributive justice should be applied both intergenerationally and intra-generationally.

Any adaptation funding framework (and related institutional arrangements and policy instruments) should also take into account a range of other considerations (Boston, 2017a), including:

· making the best possible use of the available scientific evidence and relevant expert advice;
· minimising administrative and compliance costs;
· ensuring procedural fairness and thereby minimising the likelihood of costly litigation;
· ensuring sufficient policy clarity, consistency and stability over time to facilitate effective long-term regional spatial planning and infrastructure investment, thus generating an adequate degree of certainty for affected households, businesses and other organisations;
· enabling sufficient policy flexibility to accommodate changing risk profiles;
· disincentivising policy responses that create path dependence;

· ensuring a high level of transparency in relation to revenue collection and funding allocations; and
· ensuring fiscal sustainability.

Applying these principles to the question of who pays, for what and when raises some practical questions. First, is there a case for pre-funding some of the expected costs of adaptation? Second, are there grounds for the central government to contribute to the adaptation costs facing subnational governments? Third, is there a case for public authorities compensating those harmed by the impacts of climate change: for instance, by funding some or all of citizens' private property losses (including land) or funding some or all of

the costs of managed retreat (e.g. moving expenses, the loss of business income, providing risk-free land, etc.)?

The issue of pre-funding future adaptation costs

The case for pre-funding rests primarily on the principle of responsibility, namely that those who have caused a harm should be required to contribute to alleviating the damage they have caused (or will cause in the future). This principle of justice is embodied in the idea of polluter pays. In the case of climate change, the damage that will be inflicted on current and future generations (and hence the costs of adaptation that they will bear) is largely due to the activities of recent generations. Accordingly, there is a strong case for taxing current citizens (e.g. taxpayers and ratepayers) and building up a public fund (or funds) which can be deployed to help cover the financial costs of adapting to climate change later in the century.

Against this, the scale of the costs of adaptation remains uncertain. Also, future technological innovations may significantly reduce them, thus enhancing their

affordability. Perhaps the strongest objection, however, is the claim that future generations will be better off than current generations, at least in terms of real incomes per capita. Hence, they will be in a better position than those alive today to cover the long-term costs of adaptation. Also, if the costs are much less than some fear, future governments will have little difficulty covering them from normal ongoing revenues.

But there can be no guarantee that future generations will be better off, however 'better off' is defined. After all, humanity's failure to live within safe and sustainable planetary boundaries may curb future economic growth. And even if per

> … even if per capita incomes continue to rise, there remain strong moral grounds for those who have caused climate-related harm to bear part of the cost.

capita incomes continue to rise, there remain strong moral grounds for those who have caused climate-related harm to bear part of the cost. Societies do not, after all, avoid prosecuting and penalising criminals who are poorer than their victims.

In our view, there is a plausible *prima facie* case for proportionate pre-funding of future costs of climate change adaptation. This suggests that any overall adaptation funding framework should include a mechanism – perhaps similar in concept to the New Zealand Superannuation Fund – to help cover future climate-related liabilities. A potential source for pre-funding could be revenue generated via an additional levy on fossil fuels, with the pooled funds invested and then drawn down progressively later in the century.

National cost sharing
There are multiple grounds for sharing the costs of adaptation across central and subnational government, including the considerations of efficiency and equity (including the principle of remedial responsibility). As noted earlier, adaptation costs are bound to vary – often significantly

– across different households, communities, regions and economic sectors. Many of the costs will fall in arbitrary ways, with little or no regard to the extent of each citizen's (or region's) contribution to climate change (i.e. via their cumulative greenhouse gas emissions) or their capacity to pay either for the damages inflicted or for the measures required to minimise future risks (e.g. by relocating to safer locations). Importantly, the resources available to subnational governments to implement prudent and cost-effective adaptation measures vary (depending on their relative wealth, demographic structure, etc.). Some may face only modest costs, yet have ample resources; others will face very large costs, yet have limited resources. Without some form of national cost sharing, the

and how readily those affected can bear the expected losses. In practice, many of the situations that will arise over coming decades are likely to be complex, not least because of rapidly changing risk profiles and unpleasant surprises. For instance, increased drought risk will have impacts on the range within which current land uses can operate, triggering potentially disruptive changes if inadequately anticipated and planned for, stranding assets and livelihoods. Similarly, coastal areas previously deemed to be safe may unexpectedly face the risk of inundation or the sea level may rise much faster in certain areas than previously projected. In some cases the relevant authorities may be obliged to force people to relocate to safer areas. Where compulsion is involved

government pronouncement that compensation will not be provided (e.g. to those who build in certain vulnerable areas) is unlikely to be believed. In short, a credible commitment problem seems bound to arise.

· There will be strong pressures, in the interests of overall fairness, for any compensatory arrangements to be broadly consistent, both across the country and over extended periods of time. This points to the need for a nationally mandated framework with cross-party support.

· In the absence of a well-designed, principled and consistent system of compensation, there will be political pressures for governments to implement high-cost engineering 'solutions' to protect vulnerable properties (and also threats of legal action). Yet many of these potential 'adaptations' will provide only temporary respite.

· Pre-event compensation could generate moral hazard (e.g. by encouraging risky investments). It will be imperative to mitigate such risks through well-designed regulatory and planning frameworks.

Any compensatory regime will be controversial and its implementation open to fraudulent claims.[7] As indicated, there are many relevant principles and considerations, and some of these will be in tension. It will be important, therefore, to design any regime carefully, with proper public engagement on the relevant issues and options, and detailed stakeholder involvement.

> … it might seem inequitable to provide compensation to … people who have purchased second or third homes on vulnerable coasts in the full knowledge that climate change might render their properties uninhabitable at some future date.

principles of need and ability to pay will almost certainly be violated. Equally, it will be hard for poorer communities to find the resources necessary to fund proactive measures to mitigate future risks.

Public compensation for losses
The question of whether those faced with the loss of property (including land) and/or income should receive public compensation is challenging (Sprinz and von Bünau, 2013). There are various, often conflicting, principles. For instance, it might seem inequitable to provide compensation to wealthy people who have purchased second or third homes on vulnerable coasts in the full knowledge that climate change might render their properties uninhabitable at some future date. Against this, it is often hard to determine whether particular risks could have reasonably been foreseen

in acquiring land, there has been a long history in New Zealand (and elsewhere) of providing compensation to those directly affected (and sometimes those indirectly affected). The provisions relating to such compensation in New Zealand are set out in considerable detail in the Public Works Act 1981.

While designing compensatory arrangements is beyond the scope of this article, several matters deserve emphasis:

· Given the long-standing practice in New Zealand of societal risk pooling and cost sharing for natural disasters, the public are likely to expect governments to compensate (at least partially) those suffering loss and damage from climate change, including those facing significant costs in order to reduce climate-related risks (e.g. relocation). In these circumstances, any

Reforming the funding of climate change adaptation – the broad options
In terms of the future funding of climate change adaptation, there are at least four possible options:
1. expand and modify existing local government funding instruments;
2. expand and modify existing central government funding instruments (excluding EQC), albeit in the context of annual appropriations;
3. amend the legislative mandate of EQC so that it becomes responsible for both pre-disaster funding (i.e. for protective and preventative measures) and post-disaster funding; and

4. establish a new national Climate Change Adaptation Fund with a statutory mandate to fully fund, part-fund or co-fund various specified adaptation-related costs.

In our view, the first three options are unlikely to satisfy the relevant funding principles discussed above. Hence, the fourth option is the one that could be developed further, potentially to apply to the full range of climate change impacts.

Regarding option 1, as previously argued, existing local government funding arrangements will not be sufficient to meet the expected costs of climate change adaptation, including large-scale managed retreat and major infrastructure investments. Only central government has the necessary resources and mechanisms to undertake such tasks.

Regarding option 2, central government could, at least in theory, rely on existing funding instruments, using annual appropriations to co-fund some of the costs of climate change adaptation. Potentially, it could also fund specific adaptation projects (including managed retreat) directly, rather than funding local authorities to do it. The funding of 'red-zoned' properties in Christchurch provides a possible model (Canterbury Earthquake Recovery Authority, 2016). But such arrangements would be ad hoc and thus unlikely to generate the desired level of consistency, certainty, stability, credibility or long-term durability. Moreover, as the scale of the adaptation challenges increases over coming decades, there are bound to be political pressures – from subnational governments, civil society and affected citizens – for the central government to develop more comprehensive, principled and tailored approaches. Aside from this, there would be limited scope under current fiscal arrangements for specific pre-funding of future adaptation costs, except via more concerted efforts to reduce net Crown debt.

Option 3 would involve amending the legislative mandate of EQC and extending the role of the Natural Disaster Fund to include proactive, pre-event adaptation funding. Arguably, this would provide EQC with both a stronger incentive and a greater capacity to reduce *post-disaster* costs through cost-effective adaptation measures. Assuming that the commission was

adequately funded to undertake such interventions, it could reduce the commission's future liabilities and the overall financial costs of climate change impacts. Further, under such an approach responsibilities for (some aspects of) funding adaptation would be assigned to an independent body operating in accordance with statutory criteria. Potentially this would increase the likelihood of funding decisions being evidence-informed and principled, and broadly consistent over time, thus increasing the fairness and legitimacy of the policy regime. A modified EQC could also incorporate an element of pre-funding for future adaptation costs.

Against this, giving EQC major responsibilities for pre-event adaptation funding would fundamentally alter the commission's current role as an insurer. It would result in the commission having multiple and potentially conflicting objectives – serving simultaneously as an insurer of residential properties (with a primary focus on seismic events), a mechanism for mitigating a wide range of risks, and a funder (or co-funder) of often large-scale adaptation projects, including major infrastructure investments and residential relocation. Among other things, it would raise questions over whether the insurance mandate of EQC should be extended (e.g. to include public property and businesses). It would also pose the risk that any fund that was built up over time to help pay for the future costs of adaptation could be depleted (unless quarantined separately from the post-disaster fund) every time a major natural disaster occurred.

Aside from this, questions would arise about how EQC should be funded. Currently, those who are not insured, together with commercial property owners,

do not pay the EQC levy. Yet many of these households and businesses will stand to gain significantly if the EQC becomes a pre-event funder of managed retreat and other large-scale, area-wide adaptation responses. Lastly, effective pre-event planning and adaptation will require extensive public consultation and deliberation. Such processes and procedures are far removed from those currently undertaken by EQC. This, in turn, would entail very different skills and expertise. For such reasons, we do not favour option 3.

The final option would be to create a new funding entity – such as a Climate Change Adaptation Fund – and modify

> The primary aims [of a new funding entity] would be to enhance the capacity for sound anticipatory governance through the funding of cost-effective and equitable responses …

other policy settings accordingly. The primary aims of such an entity would be to enhance the capacity for sound anticipatory governance through the funding of cost-effective and equitable responses, thereby reducing climate change risk exposure over time and minimising future damage and loss. Ideally, such a fund would complement existing *post-event* funding mechanisms, such as EQC and private insurance arrangements, so long as conflicting outcomes between them were addressed at the same time. As with the Natural Disaster Fund, a funding pool could be built up over several decades for allocation increasingly over the century, thereby enabling the burden of climate change adaptation to be shared more fairly across several generations.

An advantage of such an approach is that it would enable policymakers to establish a purpose-built institution with a specific and enduring statutory mandate. Creating any new statutory funding entity, however, raises multiple and complex design issues. These include its institutional form and mode of governance and the

nature and scope of its funding responsibilities (e.g. whether these should cover the full range of climate change impacts or only specific types, and whether there should be transitional assistance available for industries or regions facing large-scale, compounded climate-related impacts). Similarly, there is the question of what specific costs should be funded, to what extent and in accordance with what criteria. Different types of responses (e.g. investment in public infrastructure, the funding of managed retreat, transitional assistance, etc.) would require very different criteria. At the same time, any large-scale relocations will require new infrastructure investments, so the two functions would need to be properly integrated.

Related to this, concomitant changes to current regional and district planning arrangements would also need to be made. If the central government becomes a major funder of adaptation – albeit via an arm's-length statutory entity – it would require a greater influence over long-term spatial planning, not least to minimise the risk of moral hazard. But this raises important constitutional issues regarding the respective roles of central and subnational government, some of which are bound to be politically sensitive. Consideration of such institutional design issues raised here deserves rigorous analysis and public deliberation.

Conclusion

New Zealand's existing institutional arrangements are poorly designed for the adaptation challenges posed by climate change: they are too ad hoc and post hoc, inadequately proactive and preventative, and poorly integrated. Not only are overall resources insufficient for the required adaptive responses – such as building resilient public infrastructure, undertaking large-scale managed retreat, and transitioning to more sustainable rural land uses as the frequency and magnitude of impacts increase – but in many cases there is a gross mismatch between the resources and capabilities available to local authorities and the scale of the task in hand. For such reasons, current arrangements will not achieve the goals of cost minimisation and equitable burden sharing, whether intra-generationally or intergenerationally. Instead, they will contribute to sub-optimal decisions and outcomes, thereby unnecessarily burdening future generations. As part of any comprehensive plan to enhance the country's adaptive capacity, there is a good case for establishing a new national, publicly administered fund that is pre-event and preventative. Such a fund would need to be carefully designed, with the relevant criteria for its funding responsibilities clearly prescribed in enabling legislation. Creating such a fund would require potentially significant changes to current spatial planning rules, building regulations, insurance arrangements and the funding of local infrastructure. Accordingly, any move in this direction will need thorough independent scrutiny, extensive public deliberation and a concerted political effort to achieve a durable cross-party consensus on the new policy framework.

1   For analyses of 'anticipatory governance', see Boston (2017b), Guston (2014) and Quay (2010).

2   This study covered only the more populated regions of New Zealand. It included only some infrastructure assets.
3   See also recent contributions from the Society of Local Government Managers (2015) and Local Government New Zealand (2016a, 2016b).
4   Note that a Housing Infrastructure Fund was announced in early February 2017. This is designed to assist councils in high-growth areas with significant housing pressures to fund new public infrastructure (including water supply, storm water, waste water and roading). Funding of around $1 billion is available to eligible councils via a competitive bidding process.
5   'A process towards a settlement framework to mitigate debris flow risk – Awatarariki fanhead, Matatā', https://www.whakatane.govt.nz/sites/www.whakatane.govt.nz/files/documents/about-council/council-projects/debris-flow-and-landslide-hazards/policy_committee_2_july_2015.pdf.
6   Clifton to Tangoio Coastal Hazards Strategy, http://www.hbcoast.co.nz/strategy-development/.
7   So far in Christchurch, for instance, EQC has identified fraudulent claims following the earthquakes worth about $4.6 million, and 979 fraudulent claims have been prosecuted.

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A New Approach to Environmental Valuation for New Zealand

Abstract

New Zealand's Resource Management Act is frequently criticised for the costs and delays it imposes on activities, but less attention is given to the consistency of values it applies to environmental effects through its decisions. The wide variety of parties who exercise decision roles under the act lack guidance on the economic value of the environment, and non-market valuation studies are too costly to be widely used and too few and varied to infer reliable generic values. Drawing on experience in estimating the public value of safety improvements, this article proposes an alternative approach that measures people's aversion to the risk of environmental impacts of different scales and severity which could yield values sufficiently generic to be widely used, and outlines its uses both within and beyond the RMA applications.

Keywords Resource management, non-market valuation, risk, environmental accidents

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While the Resource Management Act 1991 (RMA) attracts frequent criticism for imposing costs and delays on activities, less attention is paid to whether it consistently accounts for the environmental effects of its decisions across the country. Could a more coherent approach be adopted, rather than relying on the vagaries of particular councils, courts or individual decision makers? Our answer is 'yes' – by applying the approach proposed and developed in this article, which avoids the limitations of current evaluation approaches.

Although the RMA's purpose includes providing for 'economic well-being' (section 2), the idea that environmental condition is part of the 'consumption set' that determines peoples' well-being is not commonly considered in economic terms within the act's evaluation processes. These are legislated by politicians, administered by planners and adjudicated by courts which emphasise legalistic and scientific aspects, with economic assessments largely focused on job creation and economic growth. Hence, the environment is valued in an ad hoc manner, implied through project approvals and other decisions.

This is unlikely to result in an optimal level of environmental protection across New Zealand since it leaves unanswered the economic question of how much is it worth to avoid adverse environmental effects?

The new and alternative approach combines the principles of environmental and safety valuation to deliver a flexible mechanism for environmental decision making, applicable not just to RMA decisions, but to other processes, such as biosecurity assessments, that consider environmental values. We term this a VMAEE (value of a major adverse effect on the environment), the reasons for which are considered below.

The VMAEE sits within a wider context of economists' varied attempts to place monetary value on things which do not have prices revealed in market trades. The natural environment has numerous 'missing markets', sometimes because it is impractical to regulate the use of environmental resources (like the quality of the air we breathe) and sometimes because of what might be called 'administrative failure' to define and enforce entitlements to use resources that could reveal value through trade. Markets can be created for some resources: tradable quotas for commercial fishing, for example, and emissions trading to tackle climate change. However, many environmental effects are too diffuse to enable well-functioning markets to be established.

Various methods have been devised to address this problem – e.g. non-market valuations of environmental resources – which have sometimes influenced resource use decisions (see, for instance, Harris and Meister, 1983). But applications of such methods can be time-consuming and costly, they address particular clients' concerns, and in New Zealand at least there are too few estimates employing too widely varying methods to infer generic values for environmental resources such as water quality, biodiversity or natural settings. The cost of generating bespoke values has been prohibitive, so decisions will often be taken with no explicit economic values attached to environmental impacts. In such cases, economic values are implied by the decisions taken: for example, if a decision causes an environmental resource to contract, that resource is implicitly valued

less than the opportunity cost of forgoing the project that alters it. Leaving decisions to be made without explicit focus on economic value by a variety of decision makers is not a recipe for efficient resource use.

These issues are not unique to New Zealand and can be placed in a wider context. Since the 1990s international agencies such as the World Bank, the OECD and the United Nations have steered a more consistent approach to placing values on the natural environment, driven by the premise that in the absence of a monetary value, the natural environment

may not be properly taken into account in public policy deliberations at national or regional level, nor in private corporate decision making. The World Bank has developed frameworks for comprehensive wealth, inclusive wealth and genuine savings indicators which treat the environment as a source of natural capital to be measured alongside the produced capital of machinery and infrastructure, human capital (capabilities and skills), institutional capital (laws and governance) and net foreign assets.

In parallel with this, the United Nations has developed a System of Environmental Economic Accounting (SEEA), which sets standards for preparing natural resource accounts consistent with (but not part of) its System of National Accounts which records national economic aggregates like GDP. Its latest SEEA guidelines issued in 2012 included a core framework covering resources that give rise to marketable goods (such as hydrocarbon and mineral stocks) and an experimental framework that covers non-market resources (like recreation space and biodiversity). Statistics New Zealand has prepared satellite accounts using SEEA's core framework, on

energy and minerals, water, fisheries and forestry (recently updated in Statistics New Zealand, 2018).

More recently, the notion of ecosystem services has received prominence through the UN-initiated Millennium Ecosystem Assessment in 2005, and the United Kingdom's National Ecosystem Assessment in 2011. The ecosystem services framework draws direct links between the condition of the natural environment's ecosystems and the beneficial services of value it supplies to human activities, under four distinct categories of service: provisioning (supply of materials and energy), regulating

> The [value of a major adverse effect on the environment] is primarily aimed at deriving marginal values that can inform decisions at individual project or policy change level.

(such as carbon sequestration and water flow moderation), cultural (settings for recreation, tourism and cultural heritage) and supporting (nutrient cycling and pollination).

The UN's SEEA, capital accounting and ecosystem services frameworks are all attempts at a more interdisciplinary approach to economic valuation, but integration of science and economics is not yet fully resolved. All have received official endorsement and are being implemented by governments to varying degree, but they are primarily oriented towards measuring stocks of natural resources, rather than the changes in environmental condition and flows of effects that result from individual policies, plan changes or consenting decisions. A further limiting feature is that the average values inferred from them are not the marginal values needed to assess individual policy changes or projects, which will vary with the conditions of abundance or scarcity in each situation. The principal use of these aggregate stock measures is in comparing periodic snapshots of the position of natural resources in the national economy, rather than in assessing whether a particular

project or plan change would produce benefits in excess of its full social costs, including costs of environmental changes.

The VMAEE is primarily aimed at deriving marginal values that can inform decisions at individual project or policy change level. It complements and serves a different purpose to the valuation of aggregate stocks in the SEEA.

Valuing the seemingly priceless: the conceptual underpinnings of the VMAEE framework

The VMAEE combines two pre-existing economic frameworks: the total economic value (TEV) model of natural environmental resources with public good characteristics, which includes current use values, future use (or option) values and non-use (like existence and bequest) values;[1] and the value of preventing a

willingness to pay, summed over a large group of individuals, for small reductions in each individual's risk of premature death, where the risk reductions are such that they will reduce the expected number of premature fatalities in the affected group by one and hence prevent one 'statistical fatality' in the forthcoming period. Applying the VPF means that the benefit of avoiding fatalities can be directly compared to its marginal costs, unlike in environmental assessment where the benefits of reducing the risk of environmental harm are only implicitly considered, or, worse, effectively valued at zero.

The VPF is portable across any policy domain that has an impact on human safety. This is a particularly useful feature and provides the rationale for incorporating it as the second stage of our framework. It is conceptually simple in respect of how it

reduction in the risk of a fatality that is valued, not the certain death of an identified person. Our framework incorporates this principle, unlike standard environmental valuation, which often posits (certain) changes in environmental attributes.

The distinction made above between a multi-layered, complex environment and simpler preferences for protecting human life should not preclude the adoption of a VPF-style approach to environmental valuation. A VPF is a single clear entity which becomes a benchmark value which can be adjusted for use in other contexts. In environmental matters, there is no such benchmark value except in rare cases such as global carbon credits, leaving councils, Environment Court judges and even sometimes central government policymakers without guidance on economic value when deciding what weight to place on protecting or allowing change in the natural environment. In many situations, it is difficult to build up a tailored layer cake of values that reflect all the facets of environmental change, without resorting to values transferred from elsewhere or averages that do not accurately reflect the marginal choices. Seeking public preferences to avert the risk of different scales of impact, without being precise on details, may have its limitations, but does have the advantage that it replaces the zero price implicitly applied to environmental change in much RMA decision making, which must surely be a gross underestimate. At the very least it removes the current anomaly in New Zealand whereby the transport sector explicitly values the protection of humans and directly embeds it into policy while environmental protection remains unquantified.

> Although the VMAEE framework is pitched at a higher level than individual species, sites or attributes, it also has an inbuilt flexibility that can accommodate differing severities of environmental harm.

fatality (VPF) approach[2] to valuing safety improvements in public sector projects.

However, while we retain the essence of the TEV approach, we avoid the most trenchant criticism of environmental valuation studies – in New Zealand[3] and elsewhere – which have focused on specific species or habitats, resulting in a myriad of site-specific values generated from one-off (costly) studies that risk overstating value in one context by under-accounting in others, and which sometimes have (mistakenly) been applied to valuing the current stock.[4] VMAEE achieves this by adopting a multi-site approach, mirroring the VPF approach currently applied in transport appraisal of the value of preventing fatalities, which provides a utility-theoretic measure for safety.

In that approach, safety has a clear unit of measure, whereby the VPF is the aggregate

treats the policy output – the prevention of a fatality – as no effort is made to distinguish between different accident types or different ways of dying in such an accident. This contrasts with environmental valuation, which often has multiple, diverse units of output measures – for example, particular species saved from extinction, characteristics of water quality, ill-defined 'amenity' of landscapes – making it difficult to generalise any damages away from a specific site.

VPF also permits public preferences to be incorporated into appraisals in a transparent manner, consistent with economic theory. This contrasts with current RMA process, under which, even if the public is consulted, it is unclear how these consultations affect the final decision.

The final distinguishing feature of the VPF is its integral treatment of risk. It is

Value of a major adverse effect on the environment (VMAEE) framework

Although the VMAEE framework is pitched at a higher level than individual species, sites or attributes, it also has an inbuilt flexibility that can accommodate differing severities of environmental harm. It explicitly recognises that, for some aspects of environmental value, protection of existing features may be mission-critical (e.g. habitat essential

for species survival), but for others some level of change may be acceptable because of substitution possibilities (e.g. recreation transferring from native to planted forests). It also requires a bridge between the valuation both of safety and of environmental impacts. This is provided by the concept of a major accident to the environment (MATTE), which underpins the Control of Major Accident Hazards (COMAH) Regulations 1999 in the UK,[5] but has no equivalent in New Zealand. In RMA language it might be termed a major adverse effect on the environment (MAEE). An MAEE would be flexible enough to cover both the risk of immediate catastrophic loss and the 'accident by stealth' of continued exposure to risk of degradation.
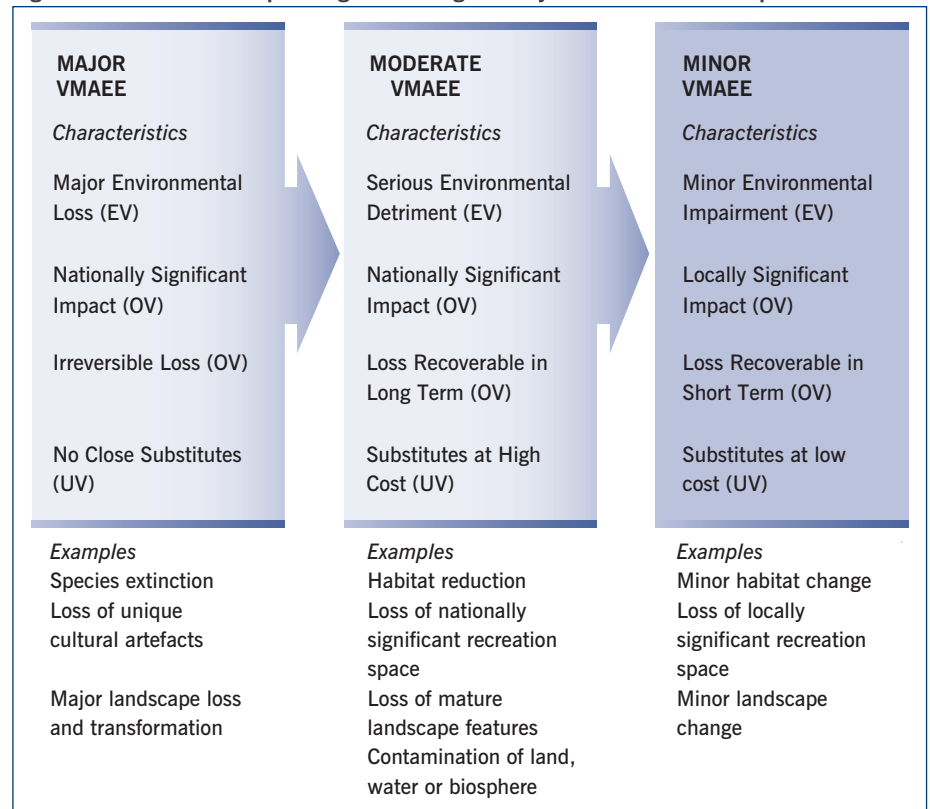
Applying the MAEE

Defining major environmental 'accident' scenarios in terms of scale, long- and short-term effects and the extent of impact on human population centres or natural areas allows non-market valuation techniques to be applied to establish people's preferences for reducing the risk of different combinations of effects at a range of prices, thus capturing the reduction in TEV from an MAEE. The arguments for and against different valuation methods and the often-voiced reservations about their validity are well rehearsed elsewhere and are not repeated here (see, for instance, NZIER, 2010; Pearce, Atkinson and Mourato, 2006). This does not negate the conceptual framework underpinning VMAEE elicitation but will undoubtedly have an impact on its empirical application. A VMAEE elicited using state-of the-art methods will clearly be less prone to error and bias than one elicited under outdated practices.

Operationalising the VMAEE

The VPF is the value of reducing the risk of the most severe life 'event', death, but reducing the risk of non-fatal injuries of varying severity is also used in regulatory analysis, requiring a value of preventing injury (VPI).[6] Likewise, our framework also accommodates adverse environmental effects of differing severity. Thus, an MAEE might be so serious that any environmental losses are irreversible

Figure 1: A VMAEE incorporating decreasing severity of environmental impact

MAJOR VMAEE	MODERATE VMAEE	MINOR VMAEE
Characteristics	*Characteristics*	*Characteristics*
Major Environmental Loss (EV)	Serious Environmental Detriment (EV)	Minor Environmental Impairment (EV)
Nationally Significant Impact (OV)	Nationally Significant Impact (OV)	Locally Significant Impact (OV)
Irreversible Loss (OV)	Loss Recoverable in Long Term (OV)	Loss Recoverable in Short Term (OV)
No Close Substitutes (UV)	Substitutes at High Cost (UV)	Substitutes at low cost (UV)
Examples	*Examples*	*Examples*
Species extinction	Habitat reduction	Minor habitat change
Loss of unique cultural artefacts	Loss of nationally significant recreation space	Loss of locally significant recreation space
Major landscape loss and transformation	Loss of mature landscape features	Minor landscape change
	Contamination of land, water or biosphere	

(e.g. global extinction of a species, or the extinction of a keystone species in a habitat of national significance), but others might have a different scale and significance – e.g. serious but without the irreversibility of potential losses (localised extinction of a species abundant elsewhere). Quantifying the VPF is straightforward: it is calculated by dividing mean willingness to pay by the risk reduction.[7] The environmental analogue value – the VMAEE – would be calculated in similar manner, with less serious adverse effects scaled accordingly.

Defining a VMAEE requires overlaying the VPF concept with the components of TEV. As an illustrative, not prescriptive, example, Figure 1 delineates a VMAEE in terms of the degree of severity of environmental damage, and demonstrates how each environmental outcome maps to value. We restrict this to three types of MAEE, although more could be included and gradations could exist between these three types: for instance, an effect with characteristics of a major VMAEE except for the availability of close substitutes elsewhere would attract lesser value than a full major VMAEE, but perhaps higher value than the moderate VMAEE. In simple terms, environmental degradation that has a negative impact on human well-being

reduces one or more of option value (OV), existence value (EV) or use value (UV). The value of reducing the risk of MAEEs of different severities is captured by the public's willingness to pay (in the same way as VPF is calculated). This will result in a range of indicative values for differing environmental effects and how the values change at the margin.

This differs crucially from existing approaches to project appraisal. Rather than having to determine the weight to be applied to individual environmental effects, the impact of these adverse effects is combined and assigned to varying categories of severity, determined by scientific/ecological characteristics. Economics can also inform this categorisation: for instance, scarcity and irreversibility enhance value, whereas abundance, availability of substitutes and ease of reproduction have the opposite effect. But the VMAEE is inherently interdisciplinary in approach. Economists need to draw on other disciplines' experts in characterising the nature and probabilities of accidental outcomes for the environment in the different severity scenarios, but once the values have been estimated they can be entered into the wider policy process, which includes both

Figure 2: An Example VMAEE Choice Set

ATTRIBUTE	CHOICE A	CHOICE B	STATUS QUO
Risk: Habitat loss	Reduced by 10%	No change	High
Risk: Landscape Change	increased by 2%	Increased by 5%	Low
Risk: Contamination	No Change	Reduced by 10%	Medium
Recreation	Improved trails (10%)	Improved trails (15%)	No improvement
Location	100 km away	1 km away	50 km away
Cost	NZ$30	NZ$50	NZ$0

Note: Risk reductions could be presented as 1/100, for example
      Location can be expressed in distance bands to a site for a representative New Zealand

economic and non-economic considerations.

Deriving and applying a VMAEE in resource management

Derivation

Here we illustrate a hypothetical application of the framework at national level, although it could be amended to a smaller operational scale. Under this scenario, the government, through the RMA, sets the frame for regulating environmental harm (or preservation) across the country. A priori, it is unknown which particular site will be affected; instead there is a small risk at all sites. Thus, any value which reflects this risk can be applied to any proposed project (or to any site that might be vulnerable to adverse effects).

To be applicable at the national level we assume that at least some people derive existence value and/or some people would adopt an altruistic stance (Aldred, 1994), and hence be prepared to contribute to the prevention or reduction in the risk of an MAEE elsewhere in the country as well as in their immediate neighbourhood. This allows us to draw directly on the conceptual framework in Appendix 1 to inform the design of any empirical study to estimate a VMAEE.[8]

Willingness to pay values could be derived from various methods: e.g. hedonic pricing methods, random utility travel cost models, contingent valuation or choice modelling (Freeman, Herriges and Kling, 2014). We develop our example in the context of a choice experiment (based on Lancaster's (1966) model of consumer preferences and widely applied in health (Ryan et al., 2006), transportation (Hensher and Rose, 2005) and the environment (Adamowicz et al., 1998)). This could be

informed by deliberative processes or focus groups which examine potential trade-offs in depth, and which can be used to refine the questions before applying them to a wider sample survey representative of the population at large.

In a VMAEE context, people's utility is a function of the different environmental attributes and the reduction in risk to these attributes. To facilitate generalisability and avoid the site-specificity problems discussed above, broad sets of attributes at risk of damage are defined in TEV terms. Respondents would first be made aware of the current conditions with respect to biodiversity significance, recreational opportunities and so on. They would then face a series of choice sets (see example in Figure 2) consisting of two or more differently specified, but related, sets in which they indicate their most preferred option.[9] By varying the attributes, levels of risk and price across choice sets, marginal values for each attribute can be recovered directly via econometric procedures (Freeman, Herriges and Kling, 2014), while estimates of overall welfare gains from the intervention as a whole can also be estimated (indirectly).

Moving forward, assume that a mean willingness to pay for a reduction in a risk to the environment has been estimated from a sample of New Zealand households. Appendix 2 considers a simple example of reducing the risk of an MAEE by 1 in 100,000 per site and shows how this can be aggregated into a societal value for this risk reduction – i.e. a VMAEE. This ex ante measure assumes that at the time of enactment the policy will be expected to prevent one adverse event in the forthcoming period, although in some periods more than one adverse event may be prevented and, in some periods, none.

This mirrors the VPF, which is the value of preventing one fatality on average in the next period.

A VMAEE in this form could complement rather than supplant other forms of environmental valuation, by indicating public value of protection against the risk of adverse effects that cannot be valued in other ways. This is similar to the VPF, which is sometimes called the human cost of accidents, and combined with other accident cost estimates such as the cost of property damage, emergency services attending the scene, policing, and justice system costs that may follow if fault is established. Thus, the VMAEE would not preclude the use of biodiversity offsets as a means of mitigating the environmental impacts: if a choice set includes offsets, the reduction in risk to biodiversity would be assigned a less major VMAEE than it would if offsets were not feasible.

Applications

We now consider how the VMAEE approach could inform decisions made on biosecurity, freshwater management, the RMA and national living standards.

Ecosystems

In biosecurity, a key issue is what value should be placed on avoiding risks to species or habitats that are unique to New Zealand. There are periodic incursion risks, such as myrtle rust which threatens indigenous trees such as mānuka and the red-flowering pōhutukawa. There are also chronic risks from established introduced predators like stoats and possums, against which the government has granted initial funding of $28 million towards making New Zealand predator-free by 2050. Diminishing returns and increasing

marginal costs may make eradicating the last breeding specimens prohibitively expensive, but policymakers are still interested in how much the public is willing to pay for more intensive predator management than is currently achieved.[10]

Protecting more habitats and wildlife communities lowers the probability of their being driven to extinction. A VMAEE could help infer societal values for risk and help prioritise how much habitat to protect and where, informing the trade-off between social and scientific objectives, although in some cases, such as risks involving pivotal keystone species, scientific considerations may continue to dominate. For example, in a New Zealand context, the Department of Conservation may have some scientifically determined bottom lines in terms of the portfolio of sites it needs to secure the survival of species, a representative diversity of habitats and the supply of ecosystem services. But the VMAEE could show the relative public value of securing environmental condition above those levels, which could assist the department with its priority setting and in demonstrating public value from extra investment funding.

Freshwater management
Deteriorating freshwater quality has recently risen in public awareness, due partly to agricultural intensification, which increases nutrient discharges to the environment, and partly to one-off events like the 2015 gastroenteritis outbreak in Havelock North, attributed to intrusion of faecal matter from sheep pastures into bores during rainstorms. These raise questions about the value of protecting surface water quality and groundwater against contamination, reducing the risk of infection from contact with water.

The question is whether the costs of so doing are justified by the benefits of reducing the frequency of such contamination. Risk of contamination varies with localised factors, such as the depth of aquifers, the location of recharge areas and the population potentially at risk – all matters which could be reflected in a VMAEE. Where water contamination has wider ramifications – e.g. affecting New Zealand's reputation as a tourist destination – a VMAEE could be informative in considering national assistance to poorer

communities to enable them to reach a higher basic standard.

A VMAEE could also inform the National Policy Statement for Freshwater Management, which in 2014 set a national objective of improving the quality of all freshwater bodies to safely 'wadeable'. This was amended in 2017 with a new target of 90% of all rivers and lakes being safely 'swimmable' by 2040 (Ministry for the Environment, 2017). At what point would the costs incurred exceed the benefits gained? A VMAEE could help determine this by providing a comparable monetary value of benefits to assist in identifying where to prioritise improving water quality.

The RMA
The RMA has come under increasing scrutiny over whether it appropriately balances the needs of development and environmental protection. Since coming into force, there have been 21 amendment acts and 34 regulations issued to give direction for more consistent implementation by the 16 regional authorities and 68 district and city councils that exercise powers under the act. Disputes under the act have recourse to the Environment Court, whose decisions can be appealed in the High Court, so the judiciary also influences implementation.

There are unavoidable trade-offs between environment and economic outcome in every decision under the act, but little guidance exists on how to make these trade-offs in economic terms. For RMA applications for local plan changes or consents for new land uses or discharges into air and water, the decision makers are left to weigh the benefits of approval against the localised environmental changes and an overlay of national

priorities. Experts on ecology, visual amenity and recreation may assess the significance of an affected site from their own perspectives, but consideration of economic consequences is often limited to potential impacts on jobs and incomes, not the potential losses people face from changes in the environment and their willingness to pay to reduce the risk of loss, as captured by TEV. This can result in perverse outcomes: for instance, authorising the destruction of very rare habitats to enable a project that would create jobs and outputs that could be readily replicated by relocating the activity elsewhere.[11] A VMAEE would provide

> The VMAEE framework developed in this article combines the existing frameworks of TEV and the VPF applied to safety and adapts them to derive valuations of public aversion to risks to the environment.

objective guidance on the relative value of different potential losses and improve consistency of decisions.

The government
The Treasury could adapt the VMAEE approach to its Living Standards Framework to place monetary values on natural capital (see van Zul and Au, 2018) and changes in environmental outcomes over time. The VMAEE approach could also be used to provide a monetary overlay to the initiatives of Ministry for the Environment and Statistics New Zealand in environmental reporting (see Ministry for the Environment, 2015), and be a step towards more explicit consideration of the economic value of (changes in) natural stocks than the natural resource satellite accounts prepared using the UN SEEA guidance for fisheries, forests, minerals and water (see Statistics New Zealand, 2018). The approach can also be used by other government departments, e.g. the Ministry for Primary Industries and agencies wherever there are environments at risk

of degradation, and to which measures can be applied that affect the probability of adverse effects occurring.

Concluding comments

The VMAEE framework developed in this article combines the existing frameworks of TEV and the VPF applied to safety and adapts them to derive valuations of public aversion to risks to the environment. It complies with the economic principle of marginal values, but also meets policymakers' needs for flexibility, consistency and transparency. It can generate a small number of values that can be applied in any domain, ensuring that environmental resources are given the same weight across different sectors, while acknowledging that some Department of Conservation preservation activities with hard-to-ascertain probabilities and involving potentially irreversible outcomes can still be determined separately. In providing such a framework, we place the environment at the heart of, rather than adjunct to, economic decisions over natural resources in New Zealand.

The VMAEE serves a different purpose from the valuations of stocks in the SEEA. But it has some overlap with the ecosystem services approach, which provides a typography for identifying services from the natural environment that can be valued and mapped against TEV (as in Appendix

1). There is potential to develop this linkage in future as both the VMAEE and ecosystem services approaches evolve.

The advantages of the VMAEE are that it generalises the object of valuation around the scale and characteristics of environmental risks, rather than valuing specific environmental features, which may affect the non-market valuation responses (for example, charismatic 'mega-fauna' attract higher survey response values than do less visible but rarer species more pivotal in ecosystem functioning). It would be less prone to 'focus illusion', which lifts the values of subjects by bringing attention to them, and which also contributes to the widely reported 'part–whole bias', in which respondents indicate similar value for environmental attributes of greatly different scale and significance. And having a single suite of values for effects of different severity derived by a common method would be more widely applicable, and ultimately less costly to obtain, than the assortment of current ad hoc valuation estimates of specific issues.

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1 Built on ideas attributed to Krutilla, 1967.
2 VPF is equivalent to the value of statistical life (VSL) seen in some literature. We use VPF here following practice in the UK, where it is considered a more accurate description of what it does: see Clough, Guria and Bealing (2015).
3 For example, Lincoln University hosts a New Zealand non-market valuation database with summary details of over 150 empirical studies applying various methods to recreation, pollution, aesthetics, risk, transport and environmental protection; however, these provide insufficient estimates on particular topics to infer reliable generic estimates.
4 An example of this, which combines environmental

consumer surplus values with GDP without adjusting for consumer surpluses on non-environmental consumption, is Costanza et al. (1997). While this approach allows society to track the value of stock over time, it is not appropriate to the type of natural resource management addressed in this article.
5 The mechanism by which the UK implements the Seveso Directive (82/501/EEC).
6 For example, the NZ Transport Agency values the reduction in risk of serious injury (requiring hospitalisation) at 10% of the VPF.
7 For instance, if the average willingness to pay to reduce the risk of fatality by 1 in 100,000 is $20, society's willingness to pay to avoid one anonymous fatality, the VPF, is $20÷0.0000001=$2 million (Lindhjem and Navrud, 2010).
8 Further assumptions would be required to enable the VMAEE to be used in economic regulation, although we do not develop them formally here. As in the VPF, we assume financial risk aversion and prudence with respect to current wealth. The environment is considered a normal good, so a person places higher value on a larger than a smaller reduction in a particular environmental hazard.
9 Following standard practice, such surveys are subject to extensive pre-testing and piloting to ensure that respondents understand the information and tasks, while retaining their scientific validity.
10 By comparison, in 2014 the Department of Conservation spent $31 million on pest control, mainly on reserve areas, and Operational Solutions for Primary Industry (OSPRI) spent $47 million on control of bovine Tb vectors on farmland and interstitial bush areas. The cost of ridding the country of introduced predators has been estimated at between $9 billion and $31 billion.
11 For example, on the Escarpment mine on the Denniston Plateau, the Environmental Court granted consent for an opencast coal mine that would destroy habitats that ecological experts for both sides agreed were extremely rare, although the economic benefits of jobs and incomes could be obtained from extraction elsewhere, as coal is not scarce in the region.

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Appendix 1: Total Economic Value And Ecosystem Services

Total Economic Value approach

Value Category	Sub-Category	Value from…	Ecosystem services	
Non-use Value	Existence value	Retaining species, sites, habitats for their own sake	**Cultural services** Non-material services obtained from ecosystems	Supporting services underpinning all other ecosystem services
	Bequest value	Retaining unique natural features for future generations		
	Scientific value	Potential for new scientific and educational understanding		
	Spiritual/culture value	Deeper experience of a place that transcends amenity, associative and commemorative values		
	Commemorative value	Connections with a significant event, idea or person		
	Associative value	Essential element of wider identity		
	Amenity/aesthetics	Visual qualities of physical attributes		
Future Use Value	Quasi-option value	Retaining potential until better informed		
	Option value	Retaining potential to use in future		
Current Use Value	Indirect use value	Use supports other activities	**Regulatory services** Benefits from regulating services of ecosystems	
	Direct use value		**Provisioning services** Products obtained from ecosystems (food, materials, energy, water)	
	Non-consumptive	Use does not deplete resource		
	Consumptive use	Use extracts or depletes resource		

Appendix 2: Calculating And Applying A VMAEE For Policy

Aggregate annual WTP = $V x 1.47 x 106 (1)

∴ Discounted present value of aggregate WTP over 20 years at public sector discount rate of 4% per annum

= $V x 1.47 x 10^6 x 14.2 (2)

= $V x 20.9 x 10^6 (3)

Expected number of MAEE prevented over 20 years as a result of risk reduction

= 1000 x (10^{-4}- 10^{-6}) x 20 (4)

= 1000 x (99 x 10^{-6}) x 20 (5)

= 1.98 (6)

This is typically referred to as the prevention of 1.98 "statistical" MAEE. Hence from (3) and (6) the aggregate WTP-based value per statistical MAEE prevented =

$$\frac{\$V \text{ x } 20 \text{ x } 10^6}{19.8}$$ (7)

= $V x 10.1 x 10 (8)

However, the overall reduction in risk per MAEE site

= (10^{-4}- 10^{-6}) x 20 (9)

= 99 x 10^{-6} x 20 (10)

= 1.98 x 10^{-3} (11)

Hence the WTP-based value of the 20 year reduction in risk per MAEE site

= ($V x 10.1 x 10^6) x 1.98 x 10^{-3} (12)

= $V x 0.020 x 10^6 (13)

= $V x 0.020 million (14)

It is then easy to calculate the value of a 20 year risk reduction for a MAEE site for different mean WTP amounts. If mean annual WTP per household was $2.50 a VMAEE would be $51,900 while a $200 mean annual household WTP would generate a VMAEE of over $4.0 million. Table A1.1 contains implied VMAEES for WTP amounts between these two values. Note that this value applies to *each* MAEE site.

Table A2.1 Implied VMAEES for Different Household Mean WTP

Mean annual household willingness to pay	Value of 20 year risk reduction per MAEE site $'000
$2.50	51.9
$5.00	103.9
$10.00	207.8
$20.00	415.5
$50.00	1,038.8
$100.00	2,077.7
$200.00	4,155.4

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Delivering on Outcomes
the experience of Māori health service providers

Abstract

This article explores the service delivery experience of Māori health service providers within the context of contracting. It draws on selected findings from a three-year Health Research Council-funded study and discusses how Māori health service providers are evidencing that their service delivery is contributing to positive outcomes for whānau. Although generally outcomes contracting appears to be fraught for providers, the foundations of a policy platform for effective outcomes contracting 'by Māori for Māori' has been established through the Whānau Ora policy.

Keywords Māori health service providers, outcomes contracting

This article explores the service delivery experience of Māori health service providers (MHSPs) within the context of contracting, particularly contracting for outcomes. It draws on selected findings from the final two phases of a three-year Health Research Council-funded study. In the first phase, we partnered with three MHSPs, in Taranaki, Whanganui and on the West Coast of the South Island, to define the specific chronic conditions prevention model of service delivery being developed by each (Gifford et al., 2017). We have since used these models as a primary vehicle for exploring how MHSPs are evidencing that their service delivery is contributing to positive outcomes for whānau.

We begin by outlining the characteristics of MHSPs and their unique role in chronic conditions prevention. We then overview recent key shifts in the state's approach to service provision and consider the impact of these for MHSPs. Issues we explore include contracting, and the more recent introduction of contracting for outcomes and commissioning for outcomes in the specific context of MHSP Whānau Ora service provision. Finally, we outline study data collection methods, before presenting results and discussion.

Background

Boulton et al. (2013) observe that MHSPs are typically 'owned' by a tribal or community-based group, and have inextricable links to their communities and a focus on putting in place services responsive to the cultural needs of Māori service users. MHSP governance and service delivery reflect tikanga Māori, or Māori-defined, frameworks (Crengle, 1999). The combination of these factors is likely to enhance MHSP efficacy for

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Māori. Across New Zealand there are a range of MHSPs: some with a few, small contracts with state agencies, and others holding much larger contracts and offering services including medical, allied health and community care (Abel et al., 2005).

MHSPs are uniquely placed to promote Māori well-being, including through addressing the critical gaps in chronic conditions prevention (Gifford et al., 2017). There is some urgency around the prevention-related work they do, given the devastating impact on indigenous peoples of chronic conditions, which is significantly contributing to health disparities (Anderson et al., 2016). In the New Zealand context, health outcomes for Māori are poorer than for non-Māori, with pronounced disparities related to chronic condition outcomes (Ministry of Health, 2013).

MHSPs are responsible for tracking, assessing and reporting on the impact of their service delivery for whānau, including prevention interventions related to chronic conditions. That activity does not occur in isolation; it is influenced by the broader approach of the state, and state agencies, to determining the needs of populations, along with related service provision, funding and success measurement. Since the mid-1980s New Zealand, along with other Western nations, has adopted a neo-liberal approach to social service provision, which has been extensively documented (Cheyne, O'Brien and Belgrave, 2008; O'Brien, 2016; Ryan, 2011; Stace and Cumming, 2006). Defining characteristics of neo-liberalism include a focus on contracts-based funding (O'Brien, Sanders and Tennant, 2009), along with limited public provision and an emphasis on individual responsibility for personal well-being (O'Brien, 2016).

While neo-liberalism brought with it unsettling changes for the social services non-profit sector generally, it can be argued that for MHSPs new opportunities emerged. MHSPs burgeoned in number during the 1990s precisely because of the neo-liberal preference for devolution of service provision beyond the state sector, which allowed a more diverse range of organisations to enter into contractual relationships for provision (O'Brien, Sanders and Tennant, 2009; Rickard, 2014).

The growth in MHSP numbers reflects the state's acceptance that, in some instances at least, services developed and delivered 'by Māori for Māori' are best placed to meet the needs of Māori (Crengle, 2000; Ellison-Loschmann and Pearce, 2006).

Tension exists, however, and it appears that much of that tension can be traced to the nature of the relationship between the state and providers inherent in contracting arrangements. Key characteristics of that relationship include its formality and narrow parameters (Nowland-Foreman, 2015). For MHSPs, additionally, balancing the demands of state contracts that do not necessarily take account of a Māori world view with a commitment to indigenous

philosophy and practice is particularly challenging (Boulton, 2007; Walsh-Tapiata cited in Rickard, 2014).

Accountability in contracting arrangements was initially focused on the outputs generated by providers, but more recently outcomes-based contracting has re-emerged as a state preference in contracting arrangements (Nowland-Foreman, 2015; O'Brien, Sanders and Tennant, 2009). Outcome priorities are predominantly determined by the state rather than by communities using services or by providers themselves (O'Brien, 2015). Moore and Moore (2015) observe that the move to outcomes-based contracting is influenced by the state's ongoing commitment to a market-led approach to service provision. Outcomes contracting requires services to effectively evidence the positive changes occurring within their client groups as a 'product' of their intervention. Change in this context may include increases in client knowledge and skill acquisition, along with

shifts in attitude, behaviour or well-being (Nowland-Foreman, 2015).

Although attributing causality in this way may sound simple enough, Boston (2017) observes that understanding of causality in the social sciences, in terms of identifying the relationships between input, outputs and outcomes, remains underdeveloped. Nowland-Foreman in turn cautions that the measuring of outcomes 'is neither simple nor straightforward, but a sophisticated and specialised skill, and inherently difficult' (Nowland-Foreman, 2015, p.13). Moore and Moore add that the preferred service outcome measures of the contract purchaser and the provider may well be

> Māori concepts of well-being, including broader social, cultural and economic indicators, are utilised which focus on collective, whānau-level outcomes, ensuring an approach 'that is intimately connected to Māori values and practices'...

markedly different: whereas the former may seek 'evidence which "scientifically" proves efficacy' (Moore and Moore, 2015, p.5), a provider may prioritise the narratives and feedback of service users (Boulton, 2005; Moore and Moore, 2015). Whether contracting for outcomes can readily accommodate the diverse interests of the contracting parties is contentious.

Contracting for outcomes thus appears fraught with challenges, primarily in relation to determining how outcomes are measured, by whom and for what purpose. Nevertheless, there has been some development in the use of an outcomes approach that is confronting these challenges: namely, the Māori-specific outcome measures that have been more formally adopted at all levels of the health system in the last decade, and, most notably, the outcome framework associated with the Whānau Ora policy. Whānau Ora as an approach to service provision emerged from the work of the Whānau Ora Taskforce

(Taskforce on Whānau-Centred Initiatives, 2010). It includes MHSP capability building, integrated contracting and government agency support for whānau integration, innovation and engagement (Office of the Auditor-General, 2015). The Whānau Ora Outcomes Framework was developed jointly by iwi leaders and Crown ministers under the auspices of the Whānau Ora Partnership Group, building on the work of the taskforce. Māori concepts of well-being, including broader social, cultural and economic indicators, are utilised which focus on collective, whānau-level outcomes, ensuring an approach 'that is intimately connected to Māori values and practices' (Moore, 2014, p.iii). Dwyer et al. discuss the accountability attributed to

model of Whānau Ora commissioning as an approach for the purchasing of outcomes. They found that the indigenous principles outlined in the Whānau Ora policy, and their underlying values, benefited overall commissioning practice. There was some evidence, for example, of service design by consumers, of working closely with providers towards shared goals, of a focus on agreed outcomes and on flexibility, of being whānau-centred and of adopting a concerted cross-sector approach. Despite a broadly positive assessment of the Te Pou Matakana commissioning model, however, Boulton et al. also draw attention to challenges inherent in commissioning, including responding effectively to providers'

for services with a focus on funding for outcomes.

Multiple data sources informed the analysis in these phases of the study, including a review of the outcomes literature in relation to MHSPs, complementing the broader review of the literature conducted in phase one; face-to-face MHSP key informant and focus group interviews with whānau participants, kaimahi, practice supervisors and managers; case study organisational document review; observations; and field notes, along with the detailed internal case record (Patton, 2015) prepared by case study site lead researchers.

The data were independently analysed by all eight members of the research team. The team then met face to face to carry out a mahi a rōpū process, further refining the independent analyses. The mahi a rōpū process involves the thematic analysis of data at a group level (Boulton and Gifford, 2014). Data synthesis was later conducted by two senior research team members, with the synthesis being taken back to the research team for final mahi a rōpū consolidation. Analysis of the data, at each stage in the process, was carried out across three interrelated nested environment levels (Berkeley and Springett, 2006): *policy* (government), *practice* (provider) and *whānau* (community). Multi-level analysis included exploring understandings of service delivery outcomes; outcomes expectations, including reporting requirements; diversity in perspectives; and experiences among informants.

We found evidence of the Whānau Ora Outcomes Framework not only being implemented by MHSPs, but also being adapted to suit local settings.

MHSPs for outcomes under Whānau Ora, identifying an opportunity here for effectively 'rebalancing accountability to funders with accountability to community' (Dwyer et al., 2014, p.1102).

Commissioning has now emerged as a model for the purchasing of outcomes under Whānau Ora. The state has established three Whānau Ora commissioning agencies, with the documented aims of reducing the provider compliance burden as well as improving funding and accountability mechanisms, to support the success of Whānau Ora (Whānau Ora Partnership Group, 2014). These commissioning agencies are contracted to invest directly into their communities. Unique within the non-profit sector, MHSPs and Pasifika providers are the primary organisations contracted by the commissioners, with the contracting focus being specifically on outcomes. All three agencies are developing their own commissioning styles.

Boulton et al. (2017), in recent research with Te Pou Matakana, the North Island commissioning agency, examined a specific

expectations of greater levels of financial and performance information transparency. Inadequate resourcing of the model, along with inordinate levels of state scrutiny, were identified as having a negative impact on both the commissioning agency and its commissioned providers in a variety of ways.

Having now set the wider policy stage for exploring the ways in which our MHSPs are experiencing relationships with funders, we present the study itself, our data collection methods, results and discussion.

The study
Informed by a kaupapa Māori approach,[1] and using a case study design, our preventing chronic conditions research drew on qualitative and evaluation-based research methods (Patton, 2015) to examine three prevention models. The preventative principles and emerging practices manifested by each case study have previously been delineated (Gifford et al., 2017). Phases two and three of the study include an examination of the recent MHSP experience of state contracting

Findings and discussion
Utilising all data sources, we defined five key theme areas when reviewing the data on outcome frameworks within the MHSP case study sites. Data is considered under the areas defined as: control, complexity, conscience, consideration and capacity. Themes are presented using a nested environments approach, discussing how outcomes have an impact at various levels of the system, including policymakers, providers and whānau.

Control
In contrast to some of the concerns identified in the literature, which highlight state control in determining

how outcomes are measured, we found at least one example where control was largely in the hands of Māori at policy, provider and whānau levels. We found evidence of the Whānau Ora Outcomes Framework not only being implemented by MHSPs, but also being adapted to suit local settings. For example, each of the seven outcome domains for Whānau Ora are clearly described in the overarching Whānau Ora Outcomes Framework (Whānau Ora Partnership Group, 2015). Te Pou Matakana has in turn conducted a significant amount of work to incorporate these outcomes into their own outcomes matrix, noting the need to develop a shared framework in collaboration with whānau and with service providers (Te Pou Matakana Commissioning Agency, 2015). Two of our case study sites hold contracts with Te Pou Matakana. One of these sites has a strong history of developing Whānau Ora service models and outcome measurement prior to the work occurring nationally under the taskforce (Boulton, Tamehana and Brannelly, 2013), and has continued this work under the now widely adopted Whānau Ora policy. The site is continually adapting to more closely align outcomes with local need and to better support whānau to realise their Whānau Ora aspirations.

The overarching framework therefore appears to be able to accommodate some level of flexibility without losing its integrity. The values underpinning the framework include, but are not limited to, notions of collective well-being at a whānau level, strengths-based practice that looks for solutions to complex issues, being whānau driven through self-identification of outcome goals, and a cross-sector approach required to resolve what are complex issues facing Māori whānau.

This theme of control is significant in the context of our findings. There is some evidence that for MHSPs, Whānau Ora reflects initial progress towards enhanced Māori control over what counts as outcomes and how outcomes are measured. Within the specific context of Whānau Ora contracting for outcomes, we recognise the potential opportunity for Māori despite also having some misgivings with respect to the neo-liberal approach to social provision generally and its impact on

Māori well-being. O'Brien, Sanders and Tennant (2009) suggest that outcomes-focused contracting could potentially provide a vehicle to 'achieve an improved, more consultative engagement between government agencies and non-profit services' (O'Brien, Sanders and Tennant, 2009, p.24). The recent work of Boulton et al. (2017) identifies some level of outcomes-focused progress with specific reference to Whānau Ora commissioned services. For our MHSPs, it would appear that the potential of Whānau Ora outcomes contracting may be beginning to be realised. We are mindful, however, of the myriad issues surrounding influence in relation to outcomes, including who

development, and other state initiatives to promote integrated contracting for outcomes, the MHSPs we partnered with in the preventing chronic conditions research continued to hold multiple contracts, including output-focused contracts, across the health and social services sector; sometimes, even, several contracts were held with a single funder. The multiplicity of contracts in turn creates a multiplicity of accountability lines, with MHSPs being required to report in various ways, and many times, often against similar measurements, creating a sometimes overwhelming sense of duplication. O'Brien, Sanders and Tennant (2009) note that state initiatives to promote contracting

> For our MHSPs, the complexity of outcome measurement is further exacerbated by the recent addition of Whānau Ora commissioning to the mix.

determines what outcomes are meaningful and how, as outlined above in the background section of this article.

Complexity
Outcome measurement, within the context of the case studies, is complex not only for providers but also for funders and policymakers. There are multiple competing demands at a variety of levels. These include the state's need to ensure accountability in relation to the use of public funds and to satisfy expectations that services will deliver clearly identified outcomes (Moore and Moore, 2015); the requirement for funders, or government agents, to develop a range of outcome measurement tools appropriate for operationalising across multiple sectors; and the pressure on providers to implement the various measurement frameworks.

For our MHSPs, the complexity of outcome measurement is further exacerbated by the recent addition of Whānau Ora commissioning to the mix. These new additions to the outcome environment do create yet another layer of accountability for MHSPs. Despite that

for outcomes had been expected to simplify the process of contracting, as well as reduce the reporting burden for providers. For our MHSPs, however, the contracting environment was akin to that described, almost a decade ago, by the non-profit sector as being both 'onerous and demanding' (O'Brien, Sanders and Tennant, 2009, p.28), suggesting limited progress is being achieved.

Conscience
Conscience, in the context of this article, refers to the overarching values and principles informing the implementation of policy such as that concerned with outcome frameworks. As has been noted above, outcomes definition and measurement is neither neutral nor value free. Indeed, over the last decade the emphasis on measuring outcomes has been imposed largely in a top-down manner, informed by priorities including accountability in the use of public funding and the requirement for data to assist in prioritising services and purchasing services at a time of fiscal constraint. The top-down drive to generate data for

outcomes tends to focus at a personal level, assuming an individualistic responsibility by at-risk groups for demonstrating outcomes. There is a tension between the principles underpinning this approach, and a broader systems-level view which sees the responsibility for change coming from a need to improve social cohesion, enhance environments and improve system responsiveness to individuals. That broader systems-level view sits more comfortably with the principles and whānau-focused Māori well-being aspirational goals of He Korowai Oranga,

that outcomes are largely determined at funder level. Reports are then populated from the bottom up, with little interaction and reflection on the data as it moves through the system. Whānau and individuals provide information to their provider, and case-level workers collect the data and feed it up through the system to provider managers, who collate the data across a range of contractual reports and then deliver this to district health boards (DHBs) and government ministries. There are multiple points at which the data can be used for reflection and improvement.

room for improvement in the outcome/reflection cycle.

Capacity
Our study identified variable capacity across the three MHSPs to develop, measure and utilise outcome data for analysis. Some of that variability was due to provider size and maturity, with larger providers managing the complexity and demands of outcome reporting more confidently than smaller, less well-developed providers. Two of the cases had internal capacity both to respond to outcome data requests and to be involved in the design and development of locally tailored outcome measurement tools specifically in relation to Whānau Ora services. However, for providers struggling with outcome measurement it was a challenge to collect data, and there appeared to be virtually no in-house capacity for analysing and utilising outcome data for service improvement. Four components were identified as influencing outcome measurement capacity at the provider level: financial resources, training opportunities, workforce capacity and information technology capacity. Some providers struggle to fund the purchase of the tools necessary for collecting and collating data for outcomes, along with the training required to strengthen the workforce capacity to collect outcomes data. Two of the three MHSPs had no in-house specialist analyst capacity that could enhance regular review of the data.

MHSPs are well placed to work effectively with Māori, including through addressing critical gaps in Māori chronic conditions prevention.

the Māori Health Strategy (King and Turia, 2002), and indeed with the aspirations of Whānau Ora.

The narrow descriptors favoured by state agencies, somewhat a necessity in outcome measurement, do not capture the richness and depth of change over time for collectives such as whānau, nor do they capture the breadth of the work undertaken by MHSPs in contributing to social change for whānau. We note, too, a concern about privacy issues regarding the use of individual and whānau data to measure outcomes. Some of the 'stories' collected from whānau are being used as exemplars to demonstrate outcomes; this type of data used in this way is potentially traceable back to specific whānau. Further discussion is therefore required to ensure that whānau are fully informed about, and consent to, the potential wider use of their personal information in the process of the refinement of outcomes measurement in services provision beyond Whānau Ora.

Consideration
There are significant missed opportunities, at all levels of the system, to review outcome data more regularly and consistently to improve health service delivery. Generally, our research with the three MHSPs showed

However, it appears that the lack of engagement with, and reflection on, the data is driven by a strong 'reporting to funders' ethos, as opposed to an iterative quality improvement process, where data is included as part of a cycle of reflection, change and reassessment. Both approaches are needed.

Concern around the dearth of feedback from DHBs to non-profit service providers is not new. For example, over a decade ago that very concern was highlighted in response to a survey by the working group of member non-government organisations regarding their relationships with DHBs (Stace and Cumming, 2006). Boulton, similarly, in the Māori mental health provider context, found that DHBs rarely used reporting information, whether output or narrative outcome reports, to address or respond to provider concerns (Boulton, 2005). Tight time frames for reporting, which are often quarterly, the workloads of individuals at all levels in the system, the capacity for analysis and the restrictive narrow measures used in outcomes discourage the use of outcome data as a quality improvement tool. With respect to the outcomes reporting required of the MHSPs to Whānau Ora commissioners, we similarly noted some

Conclusion and issues for further consideration
MHSPs are well placed to work effectively with Māori, including through addressing critical gaps in Māori chronic conditions prevention. The work they do takes place within the broad context of the neo-liberal transition, from the mid-1980s, that has seen varying degrees of state focus on market-driven solutions, limited provision and individual responsibility for personal well-being. Contracts-based funding opened up doors to forge relationships with a diversity of non-state actors, including MHSPs. Tensions for MHSPs exist, however, despite the opportunities afforded by neo-liberalism. Much of that tension can be traced to the nature of contracting itself, with contracts still being

time-bound, formalised, prescriptive and predicated on compliance. For MHSPs, balancing the demands of contracts that do not necessarily take account of a Māori world view is particularly challenging (Boulton, 2007).

In recent times, contracting for outcomes has become increasingly popular, raising its own set of challenges for MHSPs, given the tensions around who gets to determine what outcomes are important, how these outcomes are 'measured' and by whom. While it appears that the state is driving much of the outcomes decision making across contracting with the health and social services sector, contracting for Whānau Ora is apparently forging a unique direction. The high-level outcomes the Whānau Ora Outcomes Framework identifies have been directly influenced by Māori leaders, with commissioning emerging more recently as a model for the purchasing of these outcomes. Whānau Ora commissioning agencies have the documented aim of reducing the compliance burden, as well as improving funding and accountability mechanisms, to support the success of Whānau Ora. The indigenous principles outlined in Whānau Ora policy, and their underlying values, may potentially benefit overall commissioning practice. Recent research with one of the commissioning agencies (Boulton et al., 2017), for example, highlighted service design by consumers, close work with providers towards shared goals, a focus on agreed outcomes and flexibility, being whānau centred and adopting a concerted cross-sector approach. Despite a broadly positive assessment, however, significant commissioning challenges were also highlighted.

Though the overall outcomes contracting space appears to be fraught for providers, the foundations of a policy platform for effective outcomes contracting 'by Māori for Māori' has been established with the advent of the Whānau Ora services commissioning model. We found evidence of the Whānau Ora Outcomes Framework being implemented by MHSPs and being adapted to suit local circumstances. For our MHSPs, the potential of Whānau Ora outcomes may be beginning to be realised. We are mindful, however, of the many issues surrounding competing interests in relation both to Whānau Ora outcomes and to outcomes generally. Our findings highlight complexity of outcomes measurement, and of contract reporting overall, that remains problematic. MHSPs continue to juggle multiple contracts and experience 'report fatigue', despite state resolutions, initiated almost a decade ago, to simplify contracting. The potential for 'unbundled' contracts and of cross-sector and 'high trust' contracting remains far from being realised.

The outcomes space is clearly values driven and is vigorously contested, including by the state, Māori interests and the broader non-profit sector. Making explicit the values driving state outcomes contracting, and taking account of these, is important if the work of MHSPs is to be adequately and safely framed and recognised. We note the ongoing lack of opportunities being utilised to reflect on outcomes data at all levels of the system, from central government through to flax-root service delivery. Our study reinforces that there continues to be a lack of useful and timely feedback to MHSPs from state sector service contract purchasers, along with an ongoing tendency for outcomes to be largely determined in a top-down manner. Finally, we note that larger and more mature MHSPs may be in a better position to absorb some of the costs invariably associated with outcomes reporting. Others are likely to be considerably disadvantaged in relation to effective outcomes reporting.

In response to these findings, we note that if MHSPs are to actively participate in the outcomes space it is critical that:

· the work already being done, under Whānau Ora, to enhance Māori control of outcomes decision making be consolidated and extended beyond Whānau Ora;

· a simplified contracting and reporting environment, more commensurate with funding levels, is established;

· they be adequately resourced to usefully reflect on results, at all organisational levels, and can benefit from improved contractor feedback loops; and

· they be appropriately supported to access and effectively utilise measurement tools; this is especially so in the case of smaller providers.

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1   Meaning that the study was Māori-driven, focusing on issues of concern to Māori; drew on methods and practices consistent with tikanga, Māori knowledge and contemporary realities; privileged Māori research aspirations; and looked to build Māori research capacity (Gifford et al., 2017).

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and Philippa Howden-Chapman

Cold New Zealand Council Housing Getting an Upgrade

Abstract

As people spend most of their time at home, residential thermal conditions are important. Central government debate about minimum temperature requirements for rental properties requires an evidence base of indoor temperature data. We collected temperature, humidity and energy data from 49 council housing dwellings in Wellington over winter, and self-reported thermal comfort and heating behaviour. Mean indoor temperature was 14.9°C, colder than the national average, with 67% of readings under 16°C, which the World Health Organization associates with health implications. With New Zealand's high rate of excess winter mortality and children hospitalised for housing-related diseases, cold housing should be addressed.

Keywords temperature, thermal comfort, building performance, energy use, public health, council housing

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New Zealand housing is cold. New Zealand houses are often poorly constructed and heated, and indoor temperatures tend to be colder than 18°C, the World Health Organization's (WHO) recommended minimum (Howden-Chapman, Viggers et al., 2009). In other temperate countries, such as the United Kingdom, 91% of homes have central heating, compared to only 5% of New Zealand homes (Isaacs et al., 2010). In the latest New Zealand national study, conducted in 1999–2005, the mean living room temperature recorded was 15.8°C during the day in winter (ibid.). In the evening, average living room temperature rose to 17.8°C, but this is still below the recommended minimum level. Typically, rental housing is in worse condition than owner-occupied houses (White et al., 2017).

Household temperature is a topical issue in New Zealand politics. In 2016 the Labour Party's Healthy Homes Guarantee Bill (No 2) proposed a set minimum indoor temperature for all rental properties, and a number of councils are undertaking a

Table 1: Impact of Temperature on Health

Indoor temperature	Effect
21ºC	People suffering from Chronic Obstructive Pulmonary Disease should maintain temperatures at this level for at least 9 hours to avoid deteriorating health
20ºC	To prevent health risks in the elderly and the very young a 1987 WHO report recommended this minimum temperature
18ºC	To prevent health risks in the general population, WHO has recommended this as a minimum indoor temperature since 1982
Under 16ºC	Resistance to respiratory diseases may be diminished
6 – 12ºC	Blood pressure rises and increases risk of cardio-vascular disease

*Information sourced from Ormandy and Ezratty (2012)

quasi-experimental study with researchers to introduce a rental warrant of fitness (Telfar-Barnard et al., 2017). Despite this, little has been published on indoor temperature measurements in New Zealand homes to inform the policy debate.

To the authors' knowledge only two national studies on residential temperature have been completed, the 1971/72 Household Electricity Survey and the Household Energy End-use Project (HEEP) conducted between 1999 and 2005 (Isaacs et al., 2010). Eight more concentrated studies which utilise temperature measurements are listed below by date of data collection:

· nearly 1,350 homes in eight communities, from the North and South Islands, in 2001 and 2002 (Howden-Chapman, Matheson et al., 2007);
· 111 state housing upgrades in Dunedin, Invercargill and Gore in 2003 and 2004 (Lloyd and Callau, 2006);
· 40 low-income private rentals in Dunedin in 2004 (Povey and Harris, 2005);
· 409 homes in Porirua, Hutt Valley, Christchurch, Dunedin and Bluff in 2006 (Howden-Chapman, Pierse et al., 2008; Pierse et al., 2013);
· nine homes in Papakowhai and Wellington between 2006 and 2008 (Burgess et al., 2008);
· 500 homes in Whanganui, Wellington and Christchurch between 2010 and 2012 (Viggers et al., 2013);
· 15 homes in Auckland, Palmerston North and Dunedin in 2011 and 2012 (Rosemeier, 2014);
· five upgraded council houses in Wellington in 2015 (Rangiwhetu, Pierse and Howden-Chapman, 2017).

There is growing evidence of cold housing increasing health risks, and international guidelines are currently being finalised by the WHO (Telfar-Barnard et al., 2017). Increased risk of respiratory and cardiovascular disease is associated with low indoor temperatures (see Table 1). In New Zealand, 42,000 children are hospitalised annually with housing-related diseases (Hansard, 2016a). According to Davie et al. (2007), New Zealand also has one of the highest excess mortality rates in the world. The excess winter mortality (EWM) phenomenon is where a greater proportion of deaths occur in winter compared to summer. New Zealand data shows excess hospital admissions in winter for those with lower household income and in certain housing types (Hales et al., 2012; Telfar-Barnard, Baker and Hales, 2008). In comparison, when outdoor temperature dropped below –20.0°C in Siberia the average indoor temperature was noted to be 19.6°, and no evidence of overall EWM was found (Donaldson et al., 1998).

In New Zealand, those of lower socio-economic status are more vulnerable to most health effects (Taptiklis and Phipps, 2017). On average New Zealanders spend 70% of their time at home indoors, with vulnerable populations (such as babies, the elderly and those on low incomes) spending up to 90% of their time at home (Baker et al., 2007), making them even more susceptible to housing-related health risks. Fuel poverty, where a household spends more than 10% of its income on energy, is recognised as an issue for a substantial proportion of New Zealand households, and further exacerbates potential health issues for low-income households (Howden-Chapman, Viggers et al., 2012; Statistics New Zealand, 2017). Therefore, it

is particularly important to investigate low-income housing conditions, specifically temperatures and tenants' thermal comfort in social housing.

Background to the research

Wellington City Council, with co-funding from central government, has undertaken to upgrade its council housing (Stitt, 2013). An assessment of the council's housing in 2006 found moisture problems in dwellings in Arlington, the largest council housing complex, and tenants complained of being cold.

Arlington is the focus of our study. Stage one of the complex was built between 1971 and 1976, and the final stage was completed between 1981 and 1984. Before the upgrade began there were 269 dwellings on the site: 75 apartments in a high-rise tower, 172 medium-density apartments, two apartments above the community house and 20 townhouses, ranging in size from studios to five-bedroom dwellings. This differs from the average New Zealand home, which is a stand-alone house.

Arlington's redevelopment commenced in 2016. At least one section has been demolished and will be rebuilt to create 'warm, healthy and efficient housing' with the aim of 'safeguard[ing] people from illness caused by low temperature and high moisture levels' (Wellington City Council, 2016, pp.21, 92). The council's *City Housing Design Guide* states that a heater is to be provided in each living space, with a target indoor temperature of 16–19ºC. Insulation, double glazing and curtains will be installed to increase thermal performance and mechanical/forced ventilation in bathrooms and kitchens to reduce dampness.

The intervention provided an opportunity to investigate the temperature of the dwellings and the upgrade's impact. This article looks at the condition of the housing before the upgrade.

The research

Objectives

The objectives of this research were to:
1. determine indoor temperatures at Arlington and contribute to indoor temperature data for New Zealand;
2. provide a baseline for understanding the impact of upgraded dwellings;

3. look at how temperatures compared with New Zealand homes and WHO recommendations.

Method

We surveyed tenants about the warmth of their home and monitored temperature, humidity and energy usage of dwellings. Heating, house age, thermal insulation and outdoor temperatures influence indoor temperatures and were taken into consideration (French et al., 2006; Giancola et al., 2014; Howden-Chapman, Matheson et al., 2007). We intend to collect follow-up data after the upgrade.

Recruitment

A list of eligible dwellings was provided by the landlord, City Housing. The research was introduced to tenants at a community meeting and in a tenant newsletter. The study was fully explained to tenants when recruiting participants via door knocking and an information sheet was provided.

Sample

The study's inclusion criteria were Arlington tenants willing to answer a face-to-face survey and allow temperature monitoring of their dwelling. Viable temperature data were collected from 49 dwellings. Seventy-eight tenants, over the age of 16, who lived in these dwellings completed face-to-face surveys about indoor thermal comfort.

Temperature and humidity measurement

Ibuttons and HOBO data loggers were installed in participants' homes over the winter months, June, July and August 2015. These are small, robust data loggers, programmed to record temperature and humidity every hour within ±0.5°C and ±5.0% RH accuracy (Maxim Integrated, 2014; OneTemp, 2015).

In total 124 data loggers were installed, typically in the living room and the main bedroom. If children were living in the dwelling a third data logger was placed in the youngest child's room. In studios, only one data logger was placed in the main room. One hundred and two data loggers produced viable results from 49 dwellings. Other data loggers were lost, had been moved, or the tenants had moved out. Two were faulty.

Table 2: Temperature Readings Compared to WHO Recommendations

Readings	Proportion of time	Percentage of dwellings that experienced these temperatures
Less than 10ºC	1%	20%
Less than 12ºC	9%	73%
Less than 14ºC	33%	94%
Less than 16ºC	67%	98%
Less than 18ºC	87%	100%
Less than 21ºC	97%	100%

Figure 1: Distribution of living room temperatures
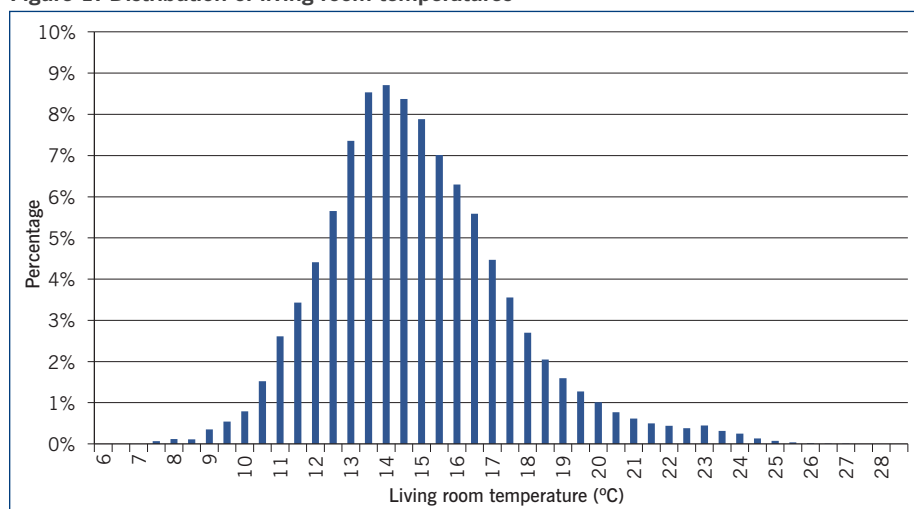
Figure 2: Distribution of bedroom temperatures
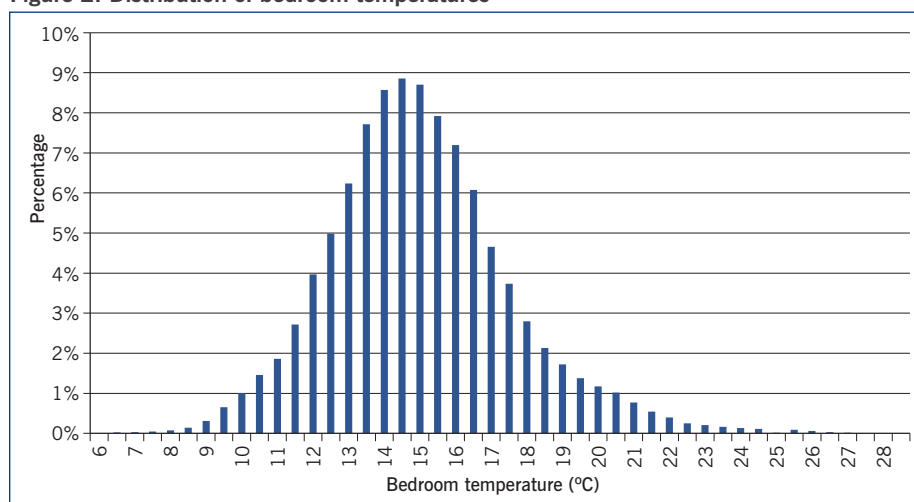
Hourly outdoor temperature and humidity was sourced from MetService's Wellington airport climate monitoring station, located less than 5km from the complex.

Energy usage information

Electricity information was sourced as a proxy for heating behaviour. Valid energy meter readings were obtained for 48 of the 49 dwellings with viable temperature data for a five-week period over winter. Gas is not permitted on City Housing sites (Wellington City Council, 2015a).

Data analysis

Data collected from data loggers, energy meter readings and surveys were compiled together. Data were then analysed to explore the distribution of indoor temperatures, and tenants' thermal comfort and heating behaviour. We examined the strength of the relationship between the indoor temperature and influential factors such as outdoor temperature and energy usage. Results were also compared with the most recently recorded New Zealand indoor temperatures.

Figure 3: Minimum and maximum temperatures recorded
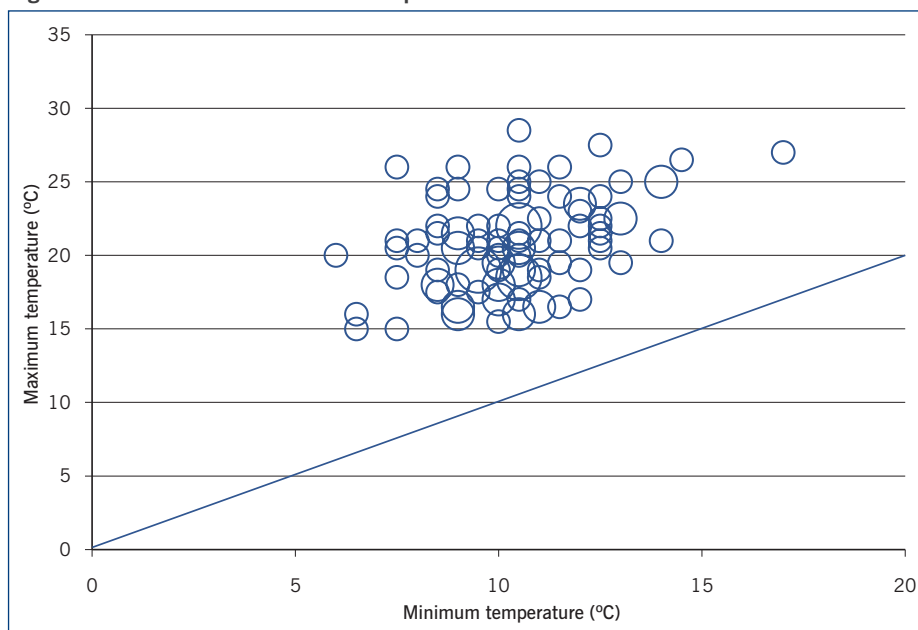
Note: Size of bubble refers to number of data loggers that recorded the same minimum and maximum temperatures. The further the bubbles are perpendicularly from the line, the larger the range.

Table 3: Temperatures Experienced by Participants Reporting Different Levels of Thermal Comfort

Proportion of temperature readings that were	Thermal comfort rating*			
	Always cold	Often cold	Sometimes cold	Rarely cold
Less than 10°C	3%	1%	0%	0%
Less than 12°C	13%	10%	0%	6%
Less than 14°C	40%	34%	0%	21%
Less than 16°C	72%	64%	24%	53%
Less than 18°C	86%	83%	77%	84%
Less than 21°C	94%	94%	98%	98%
Mean	14.8°C	15.2°C	15.2°C	15.6°C
Range	6.5 – 27.5°C	6.0 – 28.0°C	14.0 – 24.5°C	8.0 – 26.0°C
N**	18	14	39	6
Dwellings***	17	14	16	5

Note: household temperature data was pooled together from the loggers in each dwelling
An example of how to read the table is as follows - those who considered their dwelling to be 'often cold' had 83% of their temperature readings below 18°C
* 0 respondents claimed their home was 'never' cold
**77 out of 78 participants answered the question about how often their home was cold
***dwellings sum to more than 49, as some participants lived together

Results

Indoor temperatures ranged from 6.0°C to 28.5°C, with a mean temperature of 14.9°C. Most of the time (87%), indoor temperatures were lower than WHO recommendations (see Table 2 and Figures 1 and 2). Two thirds of the time indoor temperatures were less than 16°C, where resistance to respiratory disease is diminished, and 9% of the time dwellings were at temperatures of less than 12°C, with increased risk of cardiovascular disease. This issue is widespread, as almost all dwellings experienced temperatures of less than 16°C and close to three quarters of the dwellings experienced temperatures below 12°C.

Temperature ranges for each individual data logger varied substantially (Figure 3). The smallest temperature fluctuation was 5.0°C, measured in the bedrooms of two dwellings. The largest temperature fluctuation was 18.5°C, measured in another bedroom. For seven of the 49 dwellings the maximum temperature did not reach the WHO recommended minimum of 18°C. No minimum temperatures reached 18°C.

Analysis of survey data found that 42% claimed their homes were 'often' or 'always' cold throughout the year, 51% 'sometimes' and 8% 'rarely' or 'never' cold. In comparison, a city-wide survey found only 15% of Wellingtonians thought their homes were 'often' or 'always' cold, 44% 'sometimes' and 41% 'rarely' or 'never' cold (Wellington City Council, 2015b).

Participants' reports of thermal comfort at Arlington were compared with temperature readings (see Table 3). There was a slight decrease in the proportion of time dwellings were at lower temperatures across those rating their homes as 'always', 'often' and 'rarely' cold. The proportion of time dwellings were at lower temperatures in households rated as 'sometimes' cold by the occupants disrupted this trend. This is likely to be because respondents who did not know what to select chose the middle response option.

Ten per cent of all respondents did not use heating when it was cold, 44% used heating 'sometimes', 22% 'often' and 24% 'always' when cold. The most commonly given reason for the home being colder than participants would like was to keep the cost of heating down. Twenty-eight per cent of respondents also claimed their homes were 'often' or 'always' hard to heat, but the majority (54%) claimed their home was 'rarely' or 'never' hard to heat. In comparison, only 14% of Wellingtonians claimed their homes were 'often' or 'always' hard to heat, with 57% reporting that their home was 'rarely' or 'never' hard to heat (Wellington City Council, 2015b).

Temperatures fluctuated during the day. On average, dwellings were coldest in the morning and warmest in the evening (see Figure 4 and Table 4). The average living room and bedroom temperatures had a moderate but significant correlation with outdoor temperature (r=0.599 and 0.621 respectively, p<00.5).

Average energy meter readings ranged from 31.20 to 345.80kWh per week. On average energy usage was 127.20kWh per week. Pearson correlation showed that mean indoor temperatures for dwellings

had a significant moderate positive correlation with electricity usage information (r=0.576, p<0.05). The strength of correlation with indoor temperature was similar for both heating and outdoor temperature.

Humidity readings ranged from 34%RH to 93%RH, with an average humidity reading of 68%RH. Approximately three quarters of humidity readings were over 60%RH, with a quarter of humidity readings over 75%RH. This is not ideal, as high humidity levels encourage growth of mould and bacteria and should be avoided (Environmental Protection Authority, n.d.). Thirty-one per cent of participants reported that their homes were 'often' or 'always' damp, 33% 'sometimes', and 36% 'rarely' or 'never' damp. In comparison, 10% of Wellingtonians reported that their homes were 'often' or 'always' damp, 21% 'sometimes' and 70% 'rarely' or 'never' damp (Wellington City Council, 2015b).

Discussion
Independent readings found council housing, before the upgrade, both colder and more humid than recommended, which is concerning for tenants' health. Compared to city-wide findings, Arlington was also rated as colder, damper and harder to heat than Wellington housing in general. Although thermal comfort had a complex relationship with temperature data, this study found that, overall, comfort tended to decrease with lower temperatures.

Like Arlington, the average New Zealand home does not meet WHO temperature recommendations the majority of the time. Arlington's mean indoor evening temperature in the living room (15.6°C) was considerably less than the mean national temperature in the HEEP study (17.8°C). This is despite mean evening outdoor temperature being relatively similar between the studies (see Table 5). In the morning, Arlington's mean temperature was 0.6°C warmer in the living room and 1.9°C warmer in the bedroom than the mean national temperature, but outdoor temperature was 2.3°C warmer in our study.

Heating behaviour may explain the difference in evening living room temperature noted. The HEEP study found that New Zealanders typically heat one

Figure 4: Average temperatures during winter
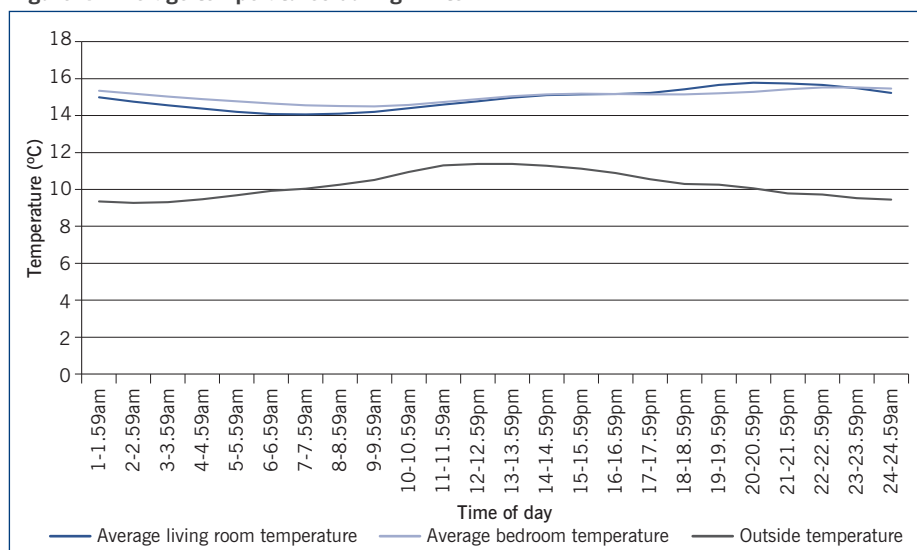
Table 4: Mean Temperatures at Arlington Over Winter

Room	Mean temperatures (ºC)				
	Overall	Morning (7 – 9am)	Day (9am – 5pm)	Evening (5 – 11pm)	Night (11pm – 7am)
Arlington living room	14.9	14.1	14.8	15.6	14.7
Arlington bedroom	15.0	14.5	14.9	15.3	15.1
Outdoor	10.2	10.1	11.1	10.1	9.5

Table 5: Mean Temperatures in NZ over winter from the HEEP study

Room	Mean temperatures (ºC)			
	Morning (7 – 9am)	Day (9am – 5pm)	Evening (5 – 11pm)	Night (11pm – 7am)
Living room	13.5 [0.6]	15.8 [-1.0]	17.8 [-2.5]	14.8 [-0.3]
Bedroom	12.6 [1.9]	14.2 [0.7]	15.0 [0.3]	13.6 [1.5]
Outdoor	7.8 [2.3]	12.0 [-0.9]	9.4 [0.7]	7.6 [1.9]

Source: adapted from Isaacs et al., 2010
Note: Difference in temperature from the current study is reported in square brackets. Negative figures indicate the national figures are greater than those at Arlington.

room, usually the living room, in the evening (Isaacs et al., 2010). This accounts for the difference of 2.8°C between living room and bedroom temperatures in the HEEP study in the evening. In our study there is little variation between evening living and bedroom temperatures (0.3°C). This difference could be due to a lack of heating, with 10% of participants stating they never used heating when cold, compared to around 2% of New Zealand households who do not heat their homes at all (Howden-Chapman, Viggers et al., 2009). This may be due to the low income of social housing tenants (Statistics New Zealand, 2017), or to the size of dwellings,

with heat transfer potentially easier between rooms in Arlington, which are typically apartments, compared to predominantly stand-alone houses in the HEEP study.

Comparing energy usage, participants in our study appear to use less energy than those in the HEEP study. The bottom 20% of energy users in the HEEP study consumed approximately 175kWh per week over winter,[1] nearly 40% more energy than the average weekly use in this study (127.20kWh per week) (Isaacs et al., 2006). Using less energy could be to do with affordability. After deregulation, power prices increased 85% nominally or 41% in

Table 6: Mean Indoor Temperatures in Southern North Island

Study	Mean indoor living room temperature	Outdoor temperature differential*
1971/72 Household Electricity Survey (August – September)	16.6°C	5.6°C
1999, 2002 – 2004 HEEP Study (August – September)	16.1°C	6.9°C
2015 Arlington Study (June – August)	14.9°C	4.7°C

Note: Data on other studies from Isaacs et al. (2010)
    * Living room temperature less outdoor temperature

real terms when adjusted by the consumers price index between 2003 and 2016 (Ministry of Business, Innovation and Employment, 2017), the approximate time between the studies. However, again it could be that the size of the dwelling means less energy is required to heat Arlington dwellings to similar temperatures.

New Zealand has a diversity of climates, with the far north warmer than the far south. Therefore, it is important to try and compare temperatures in similar locations where possible. The 1971/72 Household Electricity Survey and the HEEP study (1999, 2002–04) reported mean living room temperatures, and temperature differentials with the outdoors, for the southern part of the North Island, where Wellington and the Arlington dwellings are located (see Table 6). Arlington dwellings were colder, and had a lower temperature differential between indoors and outdoors. This implies that the council housing was colder than the average New Zealand household, although readings were taken at slightly different times of the year.

In New Zealand, houses built after 1 April 1978 required a minimum level of insulation. For the section of the Arlington complex built after 1978, the mean temperature was 15.2°C, compared to 14.6°C in the pre-1978 section. This difference aligns with findings from other studies about the effects of insulation and house age. On average, indoor temperature increased by 1°C after retrofitting a small amount of insulation to the subfloor and ceiling of uninsulated New Zealand homes (Howden-Chapman, Matheson et al., 2007; Howden-Chapman, Pierse et al., 2008). The HEEP study found that post-1978 homes had on average 1°C warmer living room temperatures in the evening compared to pre-1978 homes (Isaacs et al., 2010). With

respect to house age, the HEEP study also found that on average temperature fell 0.20±0.05°C per decade (French et al., 2006).

Given that Arlington is obviously considerably colder than desired, it is positive that Wellington City Council is trying to remedy the situation for its vulnerable tenants. It is recommended that all new council housing has a targeted minimum temperature of 18°C to meet WHO recommendations.

When the Labour Party's Healthy Homes Guarantee Bill (No 2) was put forward, the then building and housing minister, Nick Smith, claimed that a minimum temperature requirement for rental homes was 'impractical and stupid', as landlords cannot control tenants' heating behaviour (Hansard, 2016a, p.1). John Key, then prime minister, added that the bill only attempted to regulate indoor temperatures, as regulation could only be enforced after 'walking around other people's living rooms and bedrooms with a thermometer', which is impractical (Hansard, 2016b, p.1). Our research shows that temperature measurements can be taken in an unobtrusive manner. Work by He Kainga Oranga, the Housing and Health Research Programme has also identified structural means to address the issue of cold housing.

Late in 2016 the Residential Tenancies Amendment Bill came into effect, requiring rental properties to be insulated to at least 1978 standards. The debate continues, though, as the initial proposer of the bill, Andrew Little, claimed erroneously that there was no point in insulating homes if they are not heated properly (Sachdeva, 2016). It is noted that insulation by itself is insufficient to meet WHO indoor temperature recommendations, but it is a necessary precondition for effective heating.

In other temperate climates, such as the United Kingdom, average indoor temperatures have been increasing and are above WHO recommended levels. In national household surveys there, average winter living room temperatures were recorded as 18.3°C in 1978 and 19.1°C in 1996, an increase of 0.4°C per decade (Mavrogianni et al., 2013). Average bedroom temperatures increased to a greater extent by 1.8°C per decade, from 15.2°C in 1978 to 18.5°C in 1996. Policies should be enacted to ensure that New Zealand indoor temperatures are also improving.

Limitations

This study focused on low-income council housing tenants. However, out of necessity we compared our findings with nationally representative studies.

Average temperature changes demonstrate the overall trend, but hide a wide variation between individual dwellings, as demonstrated by the range of temperatures recorded. Minimum temperatures ranged from 6.0–14.5°C, with maximum temperatures ranging from 15.0–28.5°C.

Participants had varying definitions of what they perceived as cold. Homes where temperatures ranged from 6.0–15.0°C in one dwelling and 17.0–27.0°C in another were both rated by occupants as 'always' cold. Occupants in the same household also rated the warmth of their home differently.

An individual's exposure to different temperatures and therefore the health impact based on indoor temperature is unknown, as it is uncertain how much, when, and in what rooms individuals spend time at home. The notion that on average vulnerable New Zealanders spend 90% of their time at home indoors, when 87% of readings do not meet WHO recommendations, implies that residents are exposed to less than ideal temperatures for a substantial portion of time.

Policy implications

The council dwellings studied are thought to be colder than the average New Zealand houses. This aligns with expectations that owner-occupied houses are in better condition than rental housing. However,

on average social housing is in better condition than private rentals (Buckett, Jones and Marston, 2011; Howden-Chapman, Baker and Bierre, 2013). With home ownership rates falling in New Zealand, more active government policies are needed to address housing conditions of rental properties. To be most effective a range of interventions to improve indoor temperature are required.

As a first step, information should be provided to those in high-risk dwellings about how to reduce damp and cold. Housing New Zealand's graphic, 'Keeping your home warm and dry', is a good resource (Housing New Zealand Corporation, 2017). Such information can be particularly useful to people unfamiliar with New Zealand's climate and housing.

A free home energy assessment is available for Wellington and Upper Hutt city ratepayers. This educates people on the energy performance of their home and how they can adjust their behaviour to be more energy efficient, and provides a small subsidy for products such as draught stoppers and window insulation kits. Such an initiative could be rolled out across the country.

The government should provide adequate subsidies for insulating housing. Instead of wrapping up the Warm Up New Zealand: Healthy Homes insulation grants programme in June 2018 as planned by the previous government, this should be extended and the eligibility criteria expanded so that all housing is properly insulated. Insulation has been shown to have a positive benefit–cost ratio of five to one, with health benefits for occupants (Grimes et al., 2012).

The government should also support a national roll-out of the rental warrant of fitness scheme to ensure that all rental properties meet acceptable health and living standards. The scheme is currently voluntary in Wellington, supported by the Wellington City Council. With respect to temperature-related interventions in dwellings, it looks at insulation as well as double glazing, effective curtains or blinds and weathertightness. Components need to meet adequate standards to pass (Telfar-Barnard et al., 2017).

Labour should implement its Healthy Homes Guarantee Bill (No 2), make changes to the building code, and adopt the winter energy payment it proposed (New Zealand Labour Party, n.d.), underpinned by research (Viggers et al., 2013), so that tenants are able to maintain their dwelling at 18°C at reasonable cost. Wellington City Council and Housing New Zealand already build housing to a higher standard than the current building code, indicating it is insufficient.

The winter energy payment is intended for superannuitants and beneficiaries to spend on improving the warmth of their housing through heating and investing in draught-stopping and insulation. This is similar to the UK's winter fuel payments introduced in 1997, which provide household grants to improve energy efficiency, non-means-tested winter fuel payments for those over 60, and warm home discounts and cold weather payments for those on low incomes. The payments for older people have been criticised as unfocused and poorly targeted at those suffering from fuel poverty (Thurley and Kennedy, 2017). However, research has attributed a reduction in deaths of 12,000 annually to the payments (Age UK, 2015; Iparraguirre, 2014).

With respect to other related UK initiatives, the Home Energy Conservation Act 1995 requires local councils to have an action plan to improve the energy efficiency of housing in their area and report back to the government on progress (Test Valley Borough Council, 2017; UK Government, 2017). A first report was to be completed by councils by 31 March 2017 and biennially after this. It will be interesting to see the impact on housing temperature and whether it should be adopted in New Zealand.

The temperature of New Zealand housing should be monitored on a systematic and ongoing basis, in order to determine whether the issue of cold housing is improving and in response to what initiatives. Temperature measures are currently being planned in conjunction with the next New Zealand General Social Survey in 2018.

Conclusion
New Zealand still has a way to go to meet minimum temperature recommendations. With New Zealand's high rate of excess winter mortality and 42,000 children hospitalised every year for diseases associated with unhealthy homes, this is something that should be addressed sooner rather than later.

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1 This has been derived from Isaacs et al.'s (2006) finding that the bottom 20% of households use 4,860 kWh/yr of electricity. On average this equates to 93.46kWh per week. However, Isaacs et al. also state that household energy consumption varies seasonally and often rises by a factor of nearly three from summer to winter.

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UNFAIR AND DISCRIMINATORY

which regions does New Zealand take refugees from and why?

Abstract

This article considers changes to the regional composition of New Zealand's annual refugee resettlement quota under the fifth National government. The method is based on an analysis of material collected across four years of Official Information Act requests and further research conducted in the course of the Doing Our Bit campaign to double New Zealand's refugee resettlement quota. The article outlines changes to the regional composition, the stated rationale behind them, and the effect of these changes. It concludes with an argument that these changes be reversed by the new Labour-led government.

Keywords refugees, racism, New Zealand, religion, Africa, Middle East

In this article I consider changes to the regional composition of New Zealand's annual refugee resettlement quota under the fifth National government. The article draws from research conducted in the course of the successful Doing Our Bit campaign to double New Zealand's refugee resettlement quota. I outline these changes, the stated rationale behind them

and the effect of the changes, and provide an argument for them to be reversed.

Approach

I draw primary material from a range of Ministry of Business, Innovation and Employment (MBIE), Ministry of Foreign Affairs and Trade and Office of Ethnic Affairs documents released under the

Official Information Act. I have analysed this approach in Stephens (2014), which gives some insights into changes in the refugee quota under the fifth National government. The present article forms the most in-depth analysis of the regional changes yet. It adds to already published Twitter threads, press releases, interviews and editorials discussing these policies. Whereas previous discussion had aimed at highlighting concerns with the policy in an attempt to embarrass the government into a change, the current article takes a different approach. Here I seek to bolster the arguments against the policy which have already been made by a range of government departments.

What is the refugee quota and why is it important?

The refugee quota is an annual intake of refugees, the number and regional make-up of which is decided by New Zealand, which then works with the United Nations High Commissioner for Refugees (UNHCR) to fill those places. The people who become quota refugees are assessed, interviewed and ultimately selected in their first country of protection. For example, Syrian refugees from our

Murdoch Stephens leads the Doing Our Bit campaign to double New Zealand's refugee quota and recently received a PhD from Massey University for his research into critical theory and climate change.

most recent intakes have been assessed in Lebanon, their first county of protection, before being flown to New Zealand as part of our annual quota.

The refugee quota is one of three main ways that a refugee can gain protection in New Zealand, alongside making a successful claim for asylum, which requires them to be in New Zealand, or being welcomed as part of a family reunification programme. Internationally, the vast majority of refugees who gain a new residency receive protection as asylum seekers: this was the case for the refugees who sought protection in Europe during the peak of the refugee crisis of 2015. Whereas asylum seekers are assessed, and either accepted or rejected, once they're in the country from which they seek protection, quota refugees have already gone through that process before they arrive. To think of it another way: some people use the term onshore to describe asylum seekers, as they are granted protection only once they have already arrived; *offshore* is used to describe quota refugees and those coming under the family reunification programme, as they are recognised as refugees before arriving.

The refugee quota is important as it provides a vehicle for the most vulnerable, as selected by the UNHCR, to receive protection. While asylum is more often claimed by those with the skills, resources or will to get to a country that may accept them, the refugee quota protects those who are least likely to survive prolonged displacement and who have the least prospects for either voluntary repatriation or local integration (UNHCR, 2017a). The quota tends to be used most by countries that are a long way from conflict zones where large numbers of refugees originate (UNHCR, 2017b). Resettlement through the refugee quota is particularly strong in North America and Australasia, with some nascent programmes in Europe.

We might think of the quota as the way for countries who don't receive a large number of refugees applying for asylum to do their bit for refugee protection. In that sense, while the quota is technically a limit on the number of people who can come, it places no limit on the number of asylum seeker places. A better way of thinking of the quota is as an artificial minimum – like a minimum wage – which ensures that a

certain number of people gain protection. The Doing Our Bit campaign was occasionally confronted with people who wanted to abolish the refugee quota, thinking this was the equivalent of opening our borders to all people seeking protection. By way of comparison, that would be like hoping the abolition of a minimum wage would lead to higher wages.

What is New Zealand's regional refugee ban and what is its effect?
In 2009 the incoming National-led government worked with MBIE's predecessor, the Department of Labour, to streamline the assessment of refugees in Immigration New Zealand offshore

journey by boat to Australia from Indonesia. By resettling people from South East Asia, the government hoped that this would create hope that the refugee quota system might be the best avenue for registered refugees to find protection in a resettlement country like New Zealand.

The final reason behind a restructure was described as 'broad security concerns'. I will give attention here to this reason as it is the one that focuses on the characteristics of those not from the Asia–Pacific rather than the characteristics of those who are. One might also be inclined to devote more attention to this reason because it is the most sensitive of the three, as indicated by the persistent redaction of

Legal advice suggested … that only taking refugees from the Asia–Pacific region may result in a breach of the New Zealand Bill of Rights, as it may restrict the ability of already resettled refugees to use the quota as one avenue for family reunification.

interviews. This led a year later to a three-year planning and implementation stage for selecting who would arrive under the refugee quota. In the first analysis of what that three-year quota would look like the new government sought to refocus New Zealand's refugee quota on the Asia–Pacific region.[1] The initial proposal suggested moving the entirety of New Zealand's refugee intake to this region as a response to 'regional pressures'.[2]

Three core reasons emerged for this refocus. The first reason was cost: it was both cheaper to fly people in from South East Asia, where the majority of these people would arrive from, and to focus just on this area would allow economies of scale in the process where New Zealand immigration officials interview potential quota refugees referred to us by the UNHCR. The second reason expands on the notion of regional pressures: specifically, the aim was to stem the number of people who might attempt to make the dangerous

discussion of it in OIA responses. Similarly, scholars have devoted considerable attention to the 'securitisation' of forced migration, which focuses on the threat of refugees to the country accepting them, rather than on the risk to refugees (for example, see Hammerstadt, 2014 for a critical reading). Those risks are twofold: those posed by the circumstances of forced migration, such as the original war and persecution, and then the dangers associated with displacement, such as smuggling, disappearances and the lure of dangerous journeys to claim asylum.

From the texts available, it appears 'broad security concerns' are threefold. First, there may be a 'risk to New Zealand's international reputation'. This concern focuses on the potential for New Zealand to accept refugees whom we may one day find were not eligible to be refugees. This concern also speaks to a broad description of people who may pose a risk to New Zealand. The second concern is over

credibility issues with the statements and claims made by prospective refugees. The final concern is based on the difficulties potential refugees might have resettling in New Zealand, which one document describes as 'insurmountable'. Of the three, the final two are elaborated upon in the documents – with no specific mention of African and Middle Eastern refugees. Almost all of the elaboration on security concerns has been redacted, which, despite some persistence, was not overturned in a lengthy appeals process with the ombudsman.

Legal advice suggested, however, that only taking refugees from the Asia–Pacific region may result in a breach of the New Zealand Bill of Rights, as it may restrict the ability of already resettled refugees to use the quota as one avenue for family reunification. An alternative to the 100% Asia–Pacific intake was suggested, agreed to and put into practice: 50% of quota refugees were to come from the Asia–Pacific, 15% from the Middle East, 17% from Africa and 18% from the Americas.[3] This alternative, it was argued, would also help assuage 'likely concerns' from the UNHCR, which, it was noted, has a global objective to focus resettlement on those refugees in the greatest need, 'the majority of which are in Africa and the Middle East'. Prior to the Asia–Pacific focus, the regional intake was split at around 30% each for Africa, the Middle East and the Asia–Pacific.[4]

The family link criterion as restriction
If the new regional quotas were the extent of the rearrangement of New Zealand's refugee quota they might escape scrutiny. However, a proviso was also placed on refugees from the Middle East and Africa that they would only be accepted if they already had family in New Zealand. This proviso was not extended to refugees from the Americas, so we might deduce that what became known as the 'family link criterion' is less a function of cost or helping with pressures in the Asia–Pacific and more about the broad security concerns identified earlier. A rosier interpretation might be that as it was only in 2007 that the Americas was introduced as a resettlement region, the exemption from the 'family link criterion' for the Americas might be intended to build a sustainable community among this recent intake.

Regardless of the reason for placing a family link criterion on refugees from Africa and the Middle East and not the Americas, the agreement on the composition of the refugee quota explicitly stated that the ministers of immigration and foreign affairs would decide on the new allocations. Without fail they redirected the percentage of refugees originally allocated to Africa and the Middle East to the Asia–Pacific region when insufficient family-linked places were found. Over the years, a lack of people qualifying for the family link criterion became the norm, with intakes from both Africa and the Middle East dwindling to single figures. This was not due to a lack of possible family to bring to New Zealand, but because these potential quota refugees needed to be outside their country of origin and registered with the UNHCR, which did not have the facilities or resources to specifically seek out these cases.
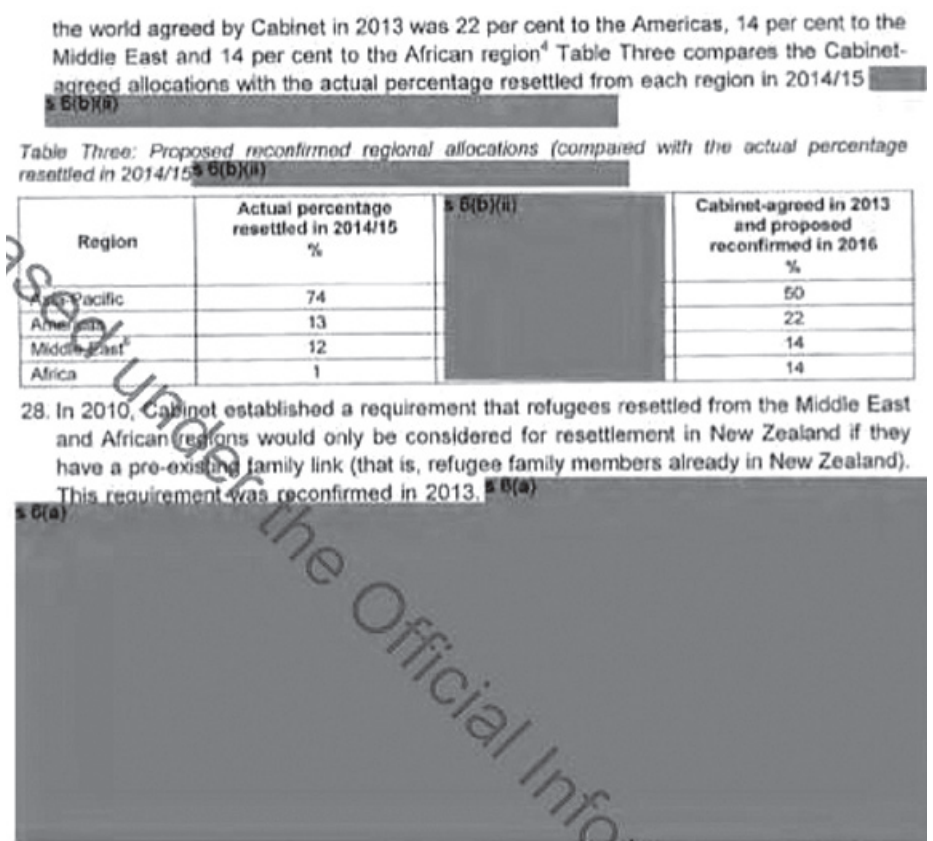
One way around these restrictions was found when 100 Syrian refugees were welcomed in 2014–16 in an emergency category from within the quota. This intake preceded the 600 extra places granted at the height of the refugee crisis. These Syrians bolstered the numbers coming from the Middle East; without it, the number of refugees from the Middle East would be almost as low as of those from Africa.

So, while we have proposed intakes from the Middle East and Africa in the double digits, our actual intakes are much smaller. Consider the 2014/15 intake[5] in Figure 1, which shows both the actual, in contrast to the proposed, intake.[6]

Thanks to the enthusiasm for blocking out large amounts of text in OIA releases, researchers are forced to speculate as to what the middle column in this table might represent. Given that the reason cited is to do with information having been entrusted to the government by an international organisation, and that the UNHCR in Canberra was the only group asked about our quota composition, it is fair to guess that the missing column is a recommended intake from them. From my dealings with the UNHCR in Canberra I would expect these recommendations to have a much more even split between regions.

While New Zealand has not explicitly banned refugees from the Middle East and Africa, the policies implemented by the National-led government have effectively led to that outcome for refugees from

Figure 1: 2014/15 agreed and actual intake

the world agreed by Cabinet in 2013 was 22 per cent to the Americas, 14 per cent to the Middle East and 14 per cent to the African region[4] Table Three compares the Cabinet-agreed allocations with the actual percentage resettled from each region in 2014/15

s 6(b)(ii)

Table Three: Proposed reconfirmed regional allocations (compared with the actual percentage resettled in 2014/15 s 6(b)(ii)

Region	Actual percentage resettled in 2014/15 %	s 6(b)(ii)	Cabinet-agreed in 2013 and proposed reconfirmed in 2016 %
Asia-Pacific	74		50
Americas	13		22
Middle East	12		14
Africa	1		14

28. In 2010, Cabinet established a requirement that refugees resettled from the Middle East and African regions would only be considered for resettlement in New Zealand if they have a pre-existing family link (that is, refugee family members already in New Zealand). This requirement was reconfirmed in 2013. s 6(a)

s 6(a)

Africa, and to a significant decrease for Middle Eastern refugees, augmented by the emergency places for Syrians. If American president Donald Trump's rejection of Middle Eastern and African refugees has been evidenced by a series of smoking gun tweets, New Zealand's move away from the same regions is a purposeful, but difficult-to-prove death by a thousand cuts.

Resistance to the ban from government departments and political opposition
This policy has not gone without comment from the relevant government departments. From 2013, MBIE has noted their inability to fill the African percentage of the quota and suggested that the minister of immigration approach Cabinet about removing the family link criterion so that the full percentage of the quota from Africa might be welcomed. Ignoring the advice from MBIE, as well as advice that the current situation means New Zealand will not meet its proposed regional goals, Cabinet has retained the family link criteria.

The only successful challenge to the restrictions was made in 2013 when the Ministry of Foreign Affairs and Trade and MBIE, contrary to earlier claims of pressure in the Asia–Pacific region, noted that they were likely to struggle to find enough refugees in the Asia–Pacific to fill a regional intake that had become more than two thirds of the quota. They successfully argued for allowing Afghan refugees who were living in Pakistan to be classified as part of the Asia–Pacific region. The Afghan refugees are predominantly from the Hazara group, a minority group in Afghanistan persecuted for their Shia faith. Hazara have had a long connection with New Zealand, with a large number of the *Tampa* refugees being Hazara. They also have connections forged with the New Zealand Defence Force's provisional reconstruction team in Bamiyan, the heartland of the Hazara people.

During the 2016 triennial review of the refugee quota, the Office of Ethnic Affairs responded to a request for comment by noting that 'some of our community stakeholders from former refugee backgrounds perceive the current family link criterion is unfair and discriminatory'. Despite these concerns, the family link criterion – the effective ban on new

refugees from the Middle East and Africa, with a few small exceptions – was retained. Even though the minister was by now fully aware that the proposed percentages would not be met, no suggestion was made to remove the family link criterion or make the proposed percentage more reflective of the difficulty of filling these family-linked places. If the community concerns about the unfair and discriminatory aspect of the family link criterion were included in the final aide-memoire that went to Cabinet, they are in the redacted portion of the document.

At the 2017 election, the restrictions became the subject of parliamentary discussion when the Greens took a stand against the family link criterion, campaigning to remove it (Green Party of Aotearoa New Zealand, 2017). When James Shaw questioned the then prime minister, Bill English, about the criterion, English referred to the Syrian emergency intake as a way to suggest that the restrictions do not exist:

James Shaw: Can he confirm that his Government cut the number of refugees New Zealand takes from Africa and the Middle East when it is precisely those people who are in the most precarious and needy situation?

Rt Hon BILL ENGLISH: There will be a range of opinions about the relative need among refugees, but the Government did respond to the very large number of refugees from Syria by opting to take several hundred more of them over the next few years. (Hansard, 2017)

This denial was indicative of what I speculate to be embarrassment felt by the government about the policy, as evidenced by their OIA redactions, obfuscation in the House of Representatives, and inflated proposals for regional intakes that they had repeatedly been told would not be met.

What is the problem with the ban?
There are four significant problems with the family link criterion that has banned new refugees from Africa and the Middle East from being settled in New Zealand, with the three exceptions of an emergency intake,

> There are four significant problems with the family link criterion that has banned new refugees from Africa and the Middle East from being settled in New Zealand, with the three exceptions of an emergency intake, family link or if they have been able to escape the region.

family link or if they have been able to escape the region. These problems have all been touched on already, but I want to focus on each one in more depth. The problems are how the changes (1) undermine the UNHCR focus on the most vulnerable; (2) compromise the universalism of human rights that underwrites accepting refugees; (3) discriminate against existing communities; and (4) represent a debasement of the political process.

First, the ban on these new refugees undermines the UNHCR's focus on using the scant resettlement places for those most at risk. While New Zealand has maintained a commitment to resettling women at risk, one of these core categories, it is clear that the greatest regional need has been in Africa and the Middle East, where conflicts – including but not limited to those is Syria, Iraq and South Sudan – have created substantial crises. While the recent escalation of displacement of Rohingya from Myanmar has created a new need for resettlement from the Asia–Pacific region, it would still be difficult to justify taking more than 50%

of our quota from this region. Similarly, the level of need in the Asia–Pacific has no relation to the policy of only taking family-linked refugees from Africa and the Middle East, while accepting those from the Americas regardless of a family link.

The second problem with the ban is more philosophical, but is no less important. By placing caveats on who we will or won't take based on generalised concerns about potential security risks, the universalism of human rights is undermined. If human rights only apply to people outside the regions where the

struggle to maintain members in the face of larger communities in Australia and elsewhere abroad. The message from the government that these refugees are not seen as capable of resettlement success creates a self-fulfilling prophecy for those communities already resettled.

Finally, there is something fundamentally dishonest in the descriptions and reasons employed by the previous government in their restrictions of refugees from these two regions. Where Trump was very direct about banning people from certain countries from entering the United

Commentators who take positions opposed to the refugee quota tend to either focus on opposition to certain kinds of refugees and on their likelihood of integrating into New Zealand society, or erroneously assume that New Zealand's refugee resettlement programme is the same as the asylum seeker movements across Europe that they have seen on the six o'clock news. See, for example, Cameron Slater on his blog *Whale Oil*, who says, 'I have no problem with the concept of refugees, or even the doubling of a quota' (Slater, 2016). Similarly, Karl Du Fresne focuses on Islamic asylum seekers, the inclination of liberals to welcome them, and the need to avoid giving asylum in case this leads to an 'ugly Far Right' resistance in New Zealand (Du Fresne, 2016).

Pro-refugee advocates tend to focus their attention on the latest conflict that has received media attention, from Syria through to the more recent focus on Rohingya refugees. While this focus on those most in danger is important, it also fuels a short-term focus on emergency intakes that struggles to lead to long-term or systemic solutions. This approach also rarely discusses systemic racism (or even mention race at all, except to denounce those like Slater and Du Fresne), accepting the premises by which particular refugee situations lead to media coverage, while others do not.

The kind of plain talking about race and refugees that would offer truly liberal outcomes – that is, outcomes not determined by race, religion or anything other than immediate need – is rare. Ann Beaglehole, in both *Refuge New Zealand* (2013) and in interviews, provides a striking example of acknowledging the role of race in refugee resettlement. In a discussion with myself and Wallace Chapman on RNZ's Sunday Morning programme, she noted the ease of her own experience as a refugee arriving in New Zealand in the 1950s: 'Hungarians on the whole had a very good reception because we were white and I had blue eyes'. Speaking of newer refugees, she notes, plainly 'there would have been some prejudice against them because they didn't have white skin' (RNZ, 2016).

While contemporary mutations of racism may be more sophisticated than

> Commentators who take positions opposed to the refugee quota tend to either focus on opposition to certain kinds of refugees and on their likelihood of integrating into New Zealand society, or erroneously assume that New Zealand's refugee resettlement programme is the same as the asylum seeker movements across Europe that they have seen on the six o'clock news.

greatest needs and challenges are, a state of exception is created that undermines the very basis of human rights.[7] Persecuted groups are rarely made refugees in a one-off act; first, their status as deserving of human rights is undermined and their very being debased.[8] When New Zealand buys into this generalised debasement and penalises all potential refugees from both Africa and the Middle East under the rubric of security concerns, then we are buying into the process of persecution.

The third problem is that raised by the criticism made by the Office of Ethnic Affairs, and is an extension of that originally used as a justification against taking the full quota from the Asia–Pacific region: discrimination against potential refugees based on their region discriminates against existing resettled communities. The small size of New Zealand's refugee quota has meant that resettled communities already

States, giving the rationale for it as religion, our government was not so clear. The tendency to describe this policy as providing 'opportunities' for family reunification might strike the uninitiated reader as positive. But these opportunities are merely the reuniting of families from previous intakes while slamming the door on any new resettlement from those regions. This kind of doublespeak does nothing to endear politicians or the democratic process to the general public, leading to cynicism and disengagement from the political process.

Speaking of race, refugees and migration
Assumptions and stereotypes based on race and religion contribute to how people view New Zealand's refugee resettlement programme. Opposition to refugees as a whole has not been coherently expressed in the mainstream media in New Zealand.

overt talk of skin colour, this does not mean that racism has gone away. Commentators like Slater generalise terrorism to all 1.3 billion of the world's Muslims; Du Fresne expresses specific concern about Muslims from North Africa and the Middle East. At the softer end of the spectrum, a spokesperson for New Zealand Customs explains why returning Syrian New Zealanders are being regularly submitted to extensive post-travel screening: 'A range of indicators are considered when deciding to interact with passengers – from nationality (to determine if a passenger has originated travel in, or passed through, a region of risk), through to body language and general demeanour. Customs does not profile passengers based on religion or belief' (Vance, 2017). Where Slater and Du Fresne are clear and precise about who they are opposed to coming to New Zealand, New Zealand Customs and the National-led government have obscured the basis of the securitisation which has taken precedence over humanitarian concerns and universal human rights in their work.

Conclusions and recommendation
While a surface reading of the official documents might not show the kind

of profiling based on religion or belief that the world has come to expect in an age of Trump, which has rarely been the New Zealand way, a close reading of the multiple documents, across nine years of the previous government, shows that this government systematically used the logic and language of risk and security to minimise the number of African and Middle Eastern refugees accorded protection in New Zealand. It ignored the advice of its departments and turned the protection of refugees into a question of *our* security, with little consideration for *theirs*.

But this is not the whole story. Given the overwhelming opposition to the family link criterion in advice on the refugee quota from MBIE and other government departments, there is reason to hope the new government will reject the regional allocations and restrictions of its predecessors. Just as Nicky Hager concluded his *Other People's Wars* (2011) with praise for the New Zealand Defence Force soldiers who confiscated a rifle from an Afghan farmer rather than simply shooting him, I am heartened by the commitment to the universalism of human rights underwriting their consistent advice to reject the family link criterion. I hope

that, even prior to the 2019 refugee quota review, the new government will accept the advice of MBIE (or whatever new ministry it becomes) and remove the family link criterion. Doing so is the only way for our refugee quota to truly play our little part in meeting the world's humanitarian needs.

1   While the quota is planned to cover a three-year block (e.g. July 2010–June 2013), it is also planned and implemented on a year by year basis, hence the annual quota is the block of time most commonly referred to.
2   As the documents referred to here are spread across many OIA responses, each consisting of multiple papers and working papers, I won't reference specific papers. Instead I would point interested parties to two ways of seeing the original documents: first, all of the OIA responses have been collected at https://fyi.org.nz/user/m_stephens; second, a Twitter thread shows the original selections of documents here: https://twitter.com/DoingOurBitNZ/status/825554122938081281.
3   Note that these regional allocations were not for the regions refugees originated from, but where they had applied for protection. For example, a Somalian making a claim in Malaysia would be considered under the Asia–Pacific quota.
4   The last ten years of refugee quota arrivals are recorded by Immigration New Zealand at https://www.immigration.govt.nz/documents/statistics/rqbarrivalsstatpak.pdf. However, for a longer term view see the useful archive at http://www.refugee.org.nz/stats.htm.
5   Intakes run from 1 July–30 June, so overlap two calendar years.
6   I have left in the sections redacted from this OIA release to give some sense of the difficulty knowing the exact reasons for these restrictions on African and Middle Eastern refugees.
7   Giorgio Agamben has offered a rich critique of this circumvention of rights in his *State of Exception* (2005).
8   For an excellent contemporary documentation and analysis of this process see Steffen Krüger's 'Barbarous hordes, brutal elites' (Kruger, 2017).

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Catherine Cotter[1]

ICTs as an Antidote to Hardship and Inequality implications for New Zealand

Abstract

Contemporary ICTs such as mobile phones and the internet, are increasingly viewed as potential solutions to some of humanity's most complex and pressing problems, including poverty and inequality. But in New Zealand the evidence shows there are large gaps in the ICT-related resources and support available to New Zealand's digitally poor. Among the shortcomings are a profound lack of integration of ICT needs into social policy design and implementation, the absence of a programme of ongoing policy review and update, and insufficient research.

Keywords digital divide, digital inclusion, ICTs, social policy, poverty, inequality

Modern information and communication technologies (ICTs) are credited with improving the lives of people everywhere.[2] They are also increasingly a part of everyday life for a growing proportion of the world's population. Among the consequences of this pervasiveness is heightened debate about so-called digital divides: New Zealand's 'digital first' national census in March 2018 was a case in point (see Statistics New Zealand, 2018; Wilson, 2018). Yet discussion about ICTs as a form of government assistance to improve the lives of the digitally disadvantaged in developed countries is largely absent. This article focuses on the government's role in creating and providing new kinds of ICT-related safety nets and services for New Zealand's poor. It begins by introducing a model from the development literature that enables analysis of the rationale and achievements of ICT investment aimed at public goals (Heeks, 2010, 2014). The model's domains are applied to arrangements in New Zealand today, guided by the objective of using ICTs to achieve greater social and economic equality and less hardship. The ensuing discussion examines who is doing what to support the digitally excluded, with a focus on the role of the government. Public policy consequences and options for New Zealand conclude the article. Because some data were initially collated in early 2016, brief comment is also able to be made on relevant changes since then. First, however, is the need to define key terms and describe the nature and magnitude of digital divides in New Zealand today.

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Key terms

Key terms

The rapid pace at which digital technologies, such as laptops, the internet, apps and mobile phones, are evolving and converging means there are advantages to referring to them collectively. Here the ICTs under discussion are the broad assortment of 'tools to collect, store, analyse, and share information digitally' (World Bank, 2016, p.2). Poverty is taken to mean a lack of money or other resources 'to participate fully in life's opportunities' (Boston and Chapple, 2014, p.21). Inequality is used in the dictionary sense to mean unevenness or lack of equality. Among the many kinds of inequalities (see Boston, 2013, for an overview), this article has a focus on social and material ICT inequalities.

Digital divides

A definition of New Zealand's digital divides is more elusive. Many explanations resort to lists of 'digitally excluded' population cohorts, circumscribed by their physical location, socio-economic circumstances, age, ethnicity, lack of uptake or use of specific ICTs or digital ICTs in general, and so on. Others rely on descriptions of 'digitally engaged' or 'included' cohorts or individuals, the corollary being that whoever does not fall within these categories constitutes the information or digitally poor.

In practice, however, any purported digital divide is a complex, multi-layered and evolving phenomenon (see Sylvester, Toland and Parore, 2017, for a recent and comprehensive review of the literature and analysis of the issues in marginalised communities in New Zealand). Further, not all aspects of the divide are cause for current societal concern. Nearly three quarters of New Zealand children aged 11 years and over own a mobile phone, for example, but for the bulk of children who do not, the reason is other than cost (Perry, 2017, p.97).

But concern about divides is justified when the absence of access to, and ability to use, ICTs hinders everyday activities that create social and economic value for the clear majority of New Zealanders, such as finding information and communicating with others. Smith et al. (2016) find that these divisions, as far as use of the internet goes, occur in New Zealand along household income, geographic and ethnic

Box 1: Features of the ICT for development value chain

Domain	Features
Readiness	• **Precursors** are the systemic prerequisites to any initiative. They are predominately national-level and can be technological (eg, electricity, telecommunications infrastructure), data systems, human capabilities (eg, skills), institutional (eg, organisations or policies), vision, or drivers (eg, demand) • **Strategies** turn precursors into inputs • **Inputs** feed into individual initiatives, and can be technology, data, labour and knowledge, motivations, goals and objectives, money, incentives, leadership and political support
Availability	• **Implementation** can occur via projects, programmes or policies • **Intermediates** and deliverables are tangible products arising from implementation of an initiative, and can be locations (eg, public libraries), ICTs (eg, computers, phones) or software applications
	Enablers (accelerators) and **constraints** (brakes) occur outside, and act on, the availability and uptake domains. They usually signify the presence or absence of necessary precursors and inputs from the readiness domain[3]
Uptake	• **Adoption** is the rate at which a target audience takes on a deliverable, eg, by purchasing an initiative or going to or connecting to it. Adoption may depend on the audience finding the deliverable acceptable (Figuères & Eugelink, 2014, p. 216) or a degree of enforcement (Heeks & Molla, 2009) • **Use** relates to a deliverable's actual usage by a target population (Heeks, 2010) • **Sustainability** is to do with mechanisms that ensure a deliverable continues to be used over time. It may depend on the continued supply and reliability of precursors and inputs (Figuères & Eugelink, 2014, p. 202) • **Scalability** to large numbers of people is required for the adoption and use of a deliverable to be sustained
Impact	• **Outputs** are behavioural changes associated with use, eg, new communication patterns, new information and decisions, or new actions or transactions • **Outcomes** are wider costs and benefits associated with ICTs, and can be financial and other quantitative or qualitative benefits, or disbenefits • **Development impacts** are the contribution of ICTs to public goals and other impacts, whether intended or unintended, and may be positive or negative

Source: based on Heeks, 2018, pp.38–9, with other sources as indicated

lines, and compound when these factors overlap. Those who are older, live more rurally, have a lower household income, and who are not New Zealand European or Asian use the internet less widely and less frequently.

Briefly, to give a sense of the numbers involved, 9% of New Zealanders surveyed in 2015 aged 16 years and over do not use the internet (Crothers et al., 2016). Using Statistics New Zealand population estimates with data from the first quarter of 2016, this equates to approximately 319,250 people. An additional 11% very rarely use the internet (ibid.). Separately,

Perry (2017, p.95) reports that 12% of children do not have good access at home to a computer and the internet for homework; for children living in New Zealand's materially poorest households, the figure is 57%.

ICTs for development

New Zealand's new Labour–New Zealand First government announced the goal of closing the country's digital divides by 2020 in November 2017 (Curran, 2017a). And, as the minister for government digital services, Clare Curran, stated a month later, international examples can be

Figure 1: ICT for development value chain
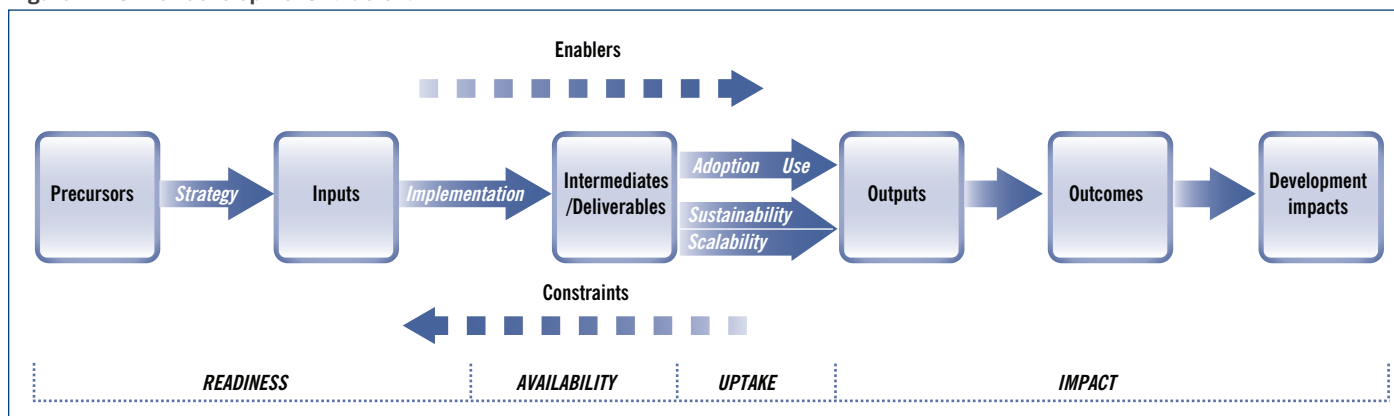
Adapted from Heeks, 2018, p. 38

instructive in achieving such an objective (Curran, 2017b). Usually ideas are sourced from richer countries (see, for example, recent analyses by Zwimpfer et al., 2017, and Innovation Partnership, 2017). But another overlooked resource are the lessons from decades-long experimentation by international aid agencies and donor and developing countries with emerging ICTs and the alleviation of poverty and inequalities (see Figuères and Eugelink, 2014; Heeks, 2018, ch.5; May, Waema and Bjåstad, 2014).

Heeks (2010) charts the evolution of huge annual expenditure on ICT-related development in poor countries over the previous 15 years. He finds that, broadly speaking, focus shifted from technical aspects of ICTs (including infrastructure) to their availability, to ICTs' uptake by targeted communities, and, most recently, to their developmental impact. Heeks has also developed an 'ICT for development' value chain. Figure 1 shows a simplified version of the chain; Box 1 defines its features (Heeks, 2018, p.38).

Applying the framework
Choice of framework
In what follows, Heeks' model is applied to New Zealand. But first a note on the choice of framework. Heeks designed it to show how ICTs can deliver development outcomes, illustrate the requirements for the creation of deliverables that enable development, and help identify which ICT elements and relations to focus on, given a desired outcome (Heeks, 2018, p.42). The chain is sufficiently generic that any public goal can be 'plugged' into it and provides the chance to analyse simultaneous initiatives. It also accommodates data from

multiple sources obtained using different methodologies (Heeks and Molla, 2009) and data at different levels, from national to households and individuals.

But there are weaknesses in the chain itself or its application here. These include a suggestion of linearity ascribed to what could be characterised as complex adaptive systems, even in the instance of apparently simple ICT initiatives (see, for example, Eppel and Lips, 2016). Further, measuring and evaluating poverty, inequality, outcomes and achievement of broad public goals is not straightforward. Also at issue can be variability in the quality, specificity and availability of secondary data, and problems with aggregating and comparing data from different sources (van Thiel, 2014, p.112). Finally, the novelty of the analysis, especially for developed countries, means there are few comparators.

Use of the framework
Use of Heeks' chain requires a goal or impact to be defined. To address the increasing problem of ICT-induced inequalities and exclusion, McKinsey and Company has suggested more ICTs for the poor (Manyika et al., 2016, p.100). The World Bank recommends upskilling employees into non-routine occupations in the 'race' against evolving digital technologies' disruption of labour markets (World Bank, 2016, pp.20–1). The solution here is taken to be McKinsey's one of more ICTs, and the desired outcome to be less hardship.

During the original research, the framework's definitions were employed as prompts for sourcing documents and websites for analysis. Relevant ICT investments, activities and programmes

were split across the chain's domains, according to whether the lead actor was central or local government, non-government organisations or individual citizens, or the private sector, including businesses' philanthropic activities.[4] A two-year cut-off date was used, and the search confined to New Zealand initiatives aimed at reducing poverty or social or material inequality, with at least one ICT as a central enabler or driver of change, that were underway rather than concluded or planned. The analysis did not attempt to take in all initiatives aimed at all divides, nor all New Zealand research.

Only a fraction of the data can be presented here, although where possible it has been updated. Samples have been selected that enable discussion of central government's role, what more it could or should do, and on what grounds, and possible policy mechanisms to extend more ICTs to digitally disadvantaged New Zealanders living in hardship. But the development and examination of alternative scenarios, such as market-based solutions, and discussion about the relativity of digital poverty in New Zealand is largely precluded. Box 2 shows the data according to Heeks' four readiness, availability, uptake and impact domains.

Who is doing what?
The government's role
The government has a large and active role in Heeks' readiness domain. It establishes systemic precursors, devises strategy, and sources and allocates inputs to policies and programmes. Since the previous, National-led government's election in 2008, focus has been on faster and better network infrastructure, primarily for

Box 2: ICTs for social development in New Zealand

Readiness domain - precursors, strategies and inputs

- The Labour-led government's ICT goals include closing New Zealand's digital divide by 2020, strengthening social inclusion and cohesion, and protecting New Zealanders' digital rights (Curran 2018a)
- In August 2017, contracts were signed for the second phase of the Rural Broadband Initiative, which will extend improved broadband to over 70,000 rural households and businesses (Ministry for Business, Innovation & Employment [MBIE], 2017)
- From term 1 2018, schools and kura began teaching from curricula updated with new digital technologies content, with two years provided for full implementation of the changes (Ministry of Education, n.d.)
- In 2016/17, the Ministry of Education funded delivery of digital inclusion programmes by the 20/20 Trust (2017, p. 3) to 1,805 families with children in low-decile schools and refugee families
- Some libraries offer free internet access
- The 20/20 Trust (2017, p. 86) has a vision of "New Zealanders fully participating in the digital world"
- In 2015, SeniorNet (2016, p. 6) introduced 29,202 enrolees, 96% of whom were aged 60 years and over, to computers, portable touchscreen devices and emerging technologies
- Of people surveyed by Crothers et al. (2016) who did not use the internet, the main reason was 33% were not interested or did not think it was useful, 20% did not know how to use or were confused by technology, 18% did not own a device capable of accessing the web, 13% had no connection, 11% found it too expensive and 5% did not have the time

Availability domain - implementation, intermediates and deliverables

- The remit of Minister Curran's ministerial advisory group includes providing advice on a "blueprint for digital inclusion and digital enablement" (MBIE, n.d.)
- As at 31 December 2017, 304,574 rural households and businesses had the choice to connect to upgraded broadband internet (MBIE, 2018)
- Work and Income pays household ICT costs in some circumstances for some allowances, eg, Sole Parent Study Assistance guidelines designate internet or landline telephone expenses as allowable costs, provided a connection is necessary for course participation and not already in place[5]
- The Ministry for Social Development (MSD) made its MyMSD app available in September (2017a, p. 34) See http://www.scoop.co.nz/stories/PO1604/S00369/mymsd-puts-clients-in-the-driving-seat.htm. The costs to clients of data to use some of the app's services[6] are negligible due to a deal with telecommunications companies
- The overall ratio of students per school-provided digital device for learning remains the same as 2011 levels (Johnson, Macguire & Wood, 2017, p. 28)
- Decile 1 to 3 schools are significantly more likely to report participating in the upgrade of network infrastructure and NGO-led digital inclusion programmes (Johnson et al., 2017, p. 106)
- The 20/20 Trust (2017, pp. 4, 5) has several programmes, eg, Family Connect, a pilot digital literacy programme for adults with few or no qualifications funded by the Tertiary Education Commission
- The Spark Foundation's Jump programme supplies free pre-pay wifi modems to families with school-aged children, each preloaded with 30GB and which cost from $10 per month to top up[7]

Uptake domain - adoption, use, sustainability and scalability

- As at 31 December 2017, 112,805 rural households and businesses had adopted upgraded broadband internet (ie, 40.3% of the 304,574 who had the option to connect) (MBIE, 2018)
- In 2016/17, 375,000 registrations for MyMSD had been made (MSD, 2017a, p. 5)
- Over 98% of students apply online for financial support and assistance (MSD, 2017b, p. 23)
- 80% of families graduating from the Computers in Homes digital inclusion programme took up the offer of a subsidised internet connection in their home (20/20 Trust, 2017, p. 27)
- One third of principals report their school accesses philanthropic support for learning with digital technologies, one third's schools are considering it, and one third's schools do not and are no considering it (Johnson et al., 2017, p. 26)
- The 2020 do not and are not Trust's (n.d.) digital inclusion map plots the availability of community wireless networks, computer access and training, digital champions, and digital initiatives across the country; InternetNZ's (n.d.) Trust's digital divide map adds correlations between social well-being and digital inclusion

Impact domain – outputs, outcomes and development impacts

- In 2016/17, 66% of applications for financial assistance from MSD (2017a, p. 2) were completed online, up 10% from the previous year
- MSD (2017a, p. 17) saw the greatest online uptake increase in 2016/17 in the Sole Parent Support category, followed by supplementary benefits and Jobseeker Support
- 60% of MSD's (2017a, p. 34) clients who work part-time use MyMSD to advise their weekly income
- Nearly one third of participants in Computers in Homes reported 12 months after course completion that it had helped them find paid work (20/20 Trust, 2017, p. 19)
- Half of surveyed principals rate the impact of digital technologies on student learning outcomes as moderate; another third rate it as significant (Johnson et al., 2017, p. 75)
- Decile 1 to 3 schools are significantly less likely to publish website information, use email between teachers and parents, email newsletters and use parent portals (Johnson et al., 2017, p. 101)

economic reasons. These programmes are set to continue under the Labour-led coalition, but with an additional focus on digital inclusion and rights. Schools are the main vehicle through which the state is modernising the nation's ICT skills.

Central government inputs are near-universal (for example, appropriations to build infrastructure) or highly targeted (for example, the few instances of payment of household ICT costs). Local government inputs tend towards the universal (for instance, public library resources), while non-government organisations' and businesses' philanthropic inputs are targeted, by focusing on children and their families or older New Zealanders, for example.

Table 1: Policy options

POLICY MECHANISM	TARGET POPULATION TARGET ICT(s)	STRENGTHS	WEAKNESSES
1. Community Services Card subsidy-type arrangements (ie, vouchers), sufficient to offset some costs but not unlimited	• Low income households • Hardware, such as laptops, computers or smartphones • ICT-related services, such as setup and maintenance costs	• Sufficiently flexible to apply to sole parents, the elderly, urban and rural dwellers, low-income wage earners, and a range of ICTs • Well established in other sectors (eg, health) • Less expensive than universal assistance (Boston & Chapple, 2014, p. 100)	• Blunt cut-off point • Higher administration and compliance costs, relative to overall assistance provided (Boston & Chapple, 2014, p. 101)
2. Subsidies for access to ICTs, allocated from telecommunications development levies	• Low income households, via discounts on monthly bills and/or higher data caps from designated providers • Household broadband internet access and/or mobile voice, text or data services	• International examples to learn from (eg, United States, South Korea) • No overall increase in social assistance costs • Levies and telecommunications service obligations are already in place in New Zealand	• The levies are already being used for fast internet infrastructure, a new emergency caller location system, and services for the deaf (MBIE, 2017)
3. Higher families tax credits	• Low income families • Any ICT • Also housing, electricity and data access	• Sound evidence of a link between income and ICT adoption and uptake (Crothers et al., 2016; Statistics New Zealand, 2015) • Families can determine their own needs • Highly targeted	• No guarantee funds will be spent on ICTs (Boston & Chapple, 2014, p. 100) • Less effective in the event of information asymmetry or uncertainty (Boston & Chapple, 2014, p. 99)
4. Substantial subsidies to targeted schools, based on decile ratings or other defined need	• School children and schools • Computers, software and broadband • Also data access and electricity	• Highly targeted and highly meritorious • Helps ameliorate schools' concerns about hardware, software and online services costs (Johnson, et al., 2017, p. 83)	• If devices cannot be transported home, or there is no internet at home, wider educative benefits may be foregone • Staff ICT professional development is also needed (Johnson et al., 2017, p. 83)
5. Higher student loan thresholds for course-related costs and living costs	• Tertiary education students • Any ICT • Also data access	• Students can determine their own ICT needs • Well established in the education, social services and tax systems	• Higher indebtedness at graduation has risks and consequences (Shaw & Eichbaum, 2011, p. 261) that the disadvantaged may be least capable of bearing

Having made ICT deliverables available, central government activity largely concludes, and in the uptake and impact domains the market takes over (see Commerce Commission, 2017; InternetNZ, 2017). But the work of public libraries, schools and non-government organisations continues to support New Zealanders' adoption and use of ICTs. The government re-emerges in the impact domain in the form of many organisations that, like the Ministry of Social Development, want to transact digitally with New Zealanders. Also active in the impact domain are a handful of government agencies, non-government organisations, and researchers collecting and examining evidence of the use and influence of ICTs on social and educational policy outputs and outcomes.

Many gaps, few overlaps
Looking across Heeks' domains in Box 2, and still concentrating on the government, the biggest gap is between the delivery of intermediates (such as internet fibre) and ensuring that there is effective non-market support for their equitable and wide adoption and use in the uptake domain. A second large gap in the data relates to government agencies' activities in and between the uptake and impact domains.

The ultrafast broadband programme illustrates both points. Curran's expectation in February 2018 was that by 2022, 87% of New Zealanders would have the option of connecting to higher-speed internet (Curran, 2018b). By the end of 2017, 40% of those with access had chosen to connect (Ministry of Business, Innovation and Employment, 2018). But current policy settings preclude the Ministry of Social Development's one million-plus clients receiving direct support, above their present eligibility, to act on this choice. Online interactions are wanted by its clients, and arrangements have been made so that the cost of data for some interactions is negligible. The benefits for its clients who transact in this way are said by the ministry to include savings of time and money, as well as it being more convenient (Ministry of Social Development, 2017b, p.27). First,

however, the precursors suggested by Heeks' framework, such as possession of a smartphone, tablet or desktop computer, must be satisfied. As discussed shortly, for many New Zealanders this is non-trivial. Then support must be extended to others, so they can experience the same benefits and new divides are not created.

Public policy implications

Heeks' framework is designed to provide guidance on decisions and actions in the pursuit of ICT-enabled goals, including those with social, economic or educational aims (Heeks, 2018, p.38). Three major observations about past and current government ICT policy decisions and disadvantaged New Zealanders arise. First, by concentrating most of a decade's public ICT investment on infrastructure, the previous government in effect took New Zealand 'back' to the beginning of the value chain. This, of course, has happened in many other countries, and perhaps must occur periodically when new technologies – railway, electricity – fundamentally change the order of things. The commensurate evolution of social policy, however, has been neglected by successive governments to the extent that it is profoundly unfit for the digital age. ICT-related allowances and benefits that predominantly focus on access to landline telephones,[8] for example, require radical overhaul and ongoing review.

Second, education features as a continuous thread throughout the chain. Actors are at work in all four domains, from readiness to impact. There are, however, still major gaps. The issue of school children's universal access to devices and the internet at school and at home has not been resolved, for example. Until it is, ICT-induced inequities and inequalities in New Zealand's education system are expected to persist and compound (Starkey, Sylvester and Johnstone, 2017). More striking still is the apparent absence of the direct provision of public services at scale that support digitally-disadvantaged New Zealanders, in the same way that youth, families, working-age people, students, those with disabilities and seniors are helped into secure housing and employment (Ministry of Social Development, 2017a, p.6). For these population cohorts, and to these core

functions, it is arguably time New Zealand added at least some basic ICTs and the support to ensure their effective use.

Third, the available evidence is silent about many major questions to do with life in New Zealand today. What of disadvantaged young people and adults searching for work or enrolled in tertiary education, for example? Is it any longer possible, practically speaking, to undertake tertiary study without access to a computer or the internet at home? Can work be found without access to a mobile phone or the internet? And what are the additional costs incurred by the absence of these technologies and, in an era of social investment, who bears them?[9] For these, and numerous other, questions there are sinsufficien answers.

Minimum ICT thresholds

New Zealand's contemporaries are responding to digital divide issues in a variety of ways. In some instances, countries are adding new ICTs to their regulatory universal service obligations. Until recently, for many governments, including those of New Zealand, Australia, the United Kingdom and Japan, that generally meant providing citizens with reasonable access to a connection for a landline telephone, payphones and the like (Calvo, 2012). Achieving agreement on changes to universal services is not easy. The European Commission's current reforms, for example, focus on updating affordability safety nets. But even as these changes, a decade in the making, were being finalised before the European Parliament's involvement, they were judged outdated and lacking relevance in the context of an evolving internet (Renda, 2017).

Other challenges range from the ideological to the technical, and include at-times irreconcilable views on the relationships between ICTs and human progress, an unstable policy environment as new ICTs and research findings emerge, and large gaps in current data. The United Kingdom, however, declared in December 2017 an intention to make citizens' ability to choose to connect to fast broadband a legal right by 2020 (Department for Digital, Culture, Media and Sport, 2017). But viewed using Heeks' framework as applied here, this merely shores up broadband

availability, and does nothing new to safeguard its equitable uptake.

ICTs, target groups and options for New Zealand

One immediate place New Zealand could start is with existing institutions and policy mechanisms. Table 1 presents five options for meeting the basic ICT needs of school-aged children from low-income families, disadvantaged adults enrolled in tertiary education, and low-income adults more generally. Each row contains a policy mechanism, a target population and suitable ICTs (and sometimes enablers, such as data access), and its strengths and weaknesses. The table does not estimate the potential costs or cost-effectiveness for each option, but these can be calculated, preferably using the most up-to-date ICT data possible.

The options, which are not mutually exclusive, are intended to illustrate how some ideas in this article might be put into action. None alone nor all of them would eliminate the incidence of digital poverty in New Zealand, even if that was a realistic, workable or desirable goal. The domestic and international evidence shows, for instance, that the targeting of families, children and individuals living in hardship, and encouraging their take-up of newly available ICTs, can be challenging. Reasons include the lived realities of some poor, such as a high degree of transience (20/20 Trust, 2017, p.12), competition at home towards children or young people's access to devices (Hartnett, 2016; Lips et al., 2017, p.33), lack of awareness about ICTs' benefits or the motivation to adopt them (Sylvester, Toland and Parore, 2017), vulnerabilities of some kinds of policies to abuse by recipients and fraud (Davies, 2016), and ongoing concerns about the real and perceived costs of accessing and using ICTs. Also no doubt at play would be the influence of broader societal views, such as ideas that anyone who wants an ICT should pay for it, or that the poor are differently and especially ill-equipped to deal with the downsides of ICT's (see Britz, 2004, for a survey). Objections from anti-poverty campaigners that money and other resources are being diverted from food and housing to ICTs could be rivalled by welfare opponents' concerns about increases to

social assistance. But some or all of these may prove spurious arguments for withholding from the poor ICTs that benefit many other people, and few are insurmountable. The evidence shows increasing demand for more ICTs from New Zealanders who receive social services, and, when all elements of Heeks' framework are tended to, their sustained and successful take-up of ICTs is possible.

Conclusion

New Zealand needs a full and complete ICT policy framework that reflects social, economic and educational goals for all New Zealanders. An explicit aim of the framework must be the creation of modern, complementary and cost-effective ICT social policies. Among the first target populations for these initiatives should be children and young people from poor families and low-income adults, including students. The entirety of the framework must be revisited often, more frequently than many others are, and not solely for economic development motives. Further, new core social development functions and public services should be considered that enable digitally-excluded New Zealanders' sustained adoption and use of modern ICTs at scale. To support these changes, investment in ongoing research to expose, explain and address gaps in current knowledge is also required.

1 This article is based on research undertaken by the author as part of a Master of e-Government at the School of Government at Victoria University of Wellington. The research was awarded the 2017 Holmes Prize in Public Policy.
2 This article is necessarily based on assumptions that remain unexplored here about the relationships between society, ICTs and the role of democratically-elected governments in welfare states. In fact, many aspects of these relationships are unfolding rapidly and highly contested. See Gluckman, 2018, for recent commentary on some of the issues.
3 For example, some would have it that the issues are wider,

more systemic and solved not by focusing on technologies but on adequate minimum levels of income, equality of and achieving equity in education, and so on. See Dutton and Graham, 2014, pp.5–8 for a survey of different possible perspectives. Where this is especially relevant to New Zealand is the effects that higher minimum wages, fee-free tertiary education, and other enablers planned by the Labour-led coalition will have on otherwise unassisted ICT take-up by the poor.
4 In practice, of course, this split quickly breaks down.
5 At https://www.workandincome.govt.nz/map/employment-and-training/specific-employment-related-assistance/sole-parent-study-assistance/internet-01.html on 18 March 2018.
6 For exclusions, see https://www.workandincome.govt.nz/about-work-and-income/our-services/cheap-as-data/what-services-can-be-used-with-cheap-as-data.html.
7 See https://www.sparknz.co.nz/what-matters/spark-jump/.
8 See, for example, the guide to telephone costs for the disability allowance at https://www.workandincome.govt.nz/map/income-support/extra-help/disability-allowance/telephone-01.html on 18 March 2018.
9 By one account, being online can benefit individuals by nearly $1,000 annually (see Zwimpfer et al., 2017, p.2).

Acknowledgements

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