



1 July 2025

Address to International Organisation of Supreme Audit Institutions Working Group on Environment Auditing Assembly:

From assuring compliance to scrutinising impact: shining a light on public environmental expenditure

Introduction

My name is Simon Upton, and I am the Parliamentary Commissioner for the Environment for Aotearoa New Zealand. I am one of three officers of Parliament in New Zealand who provide independent advice to parliamentarians that enables them to hold the Government of the day to account. The other officers of Parliament are the Controller and Auditor General and the Ombudsman. Each of us provides scrutiny of a different aspect of Government, with the other two officers having much broader mandates: the Ombudsman investigates complaints about administrative actions from across all levels of government; and I suspect you know what the Controller and Auditor-General does!

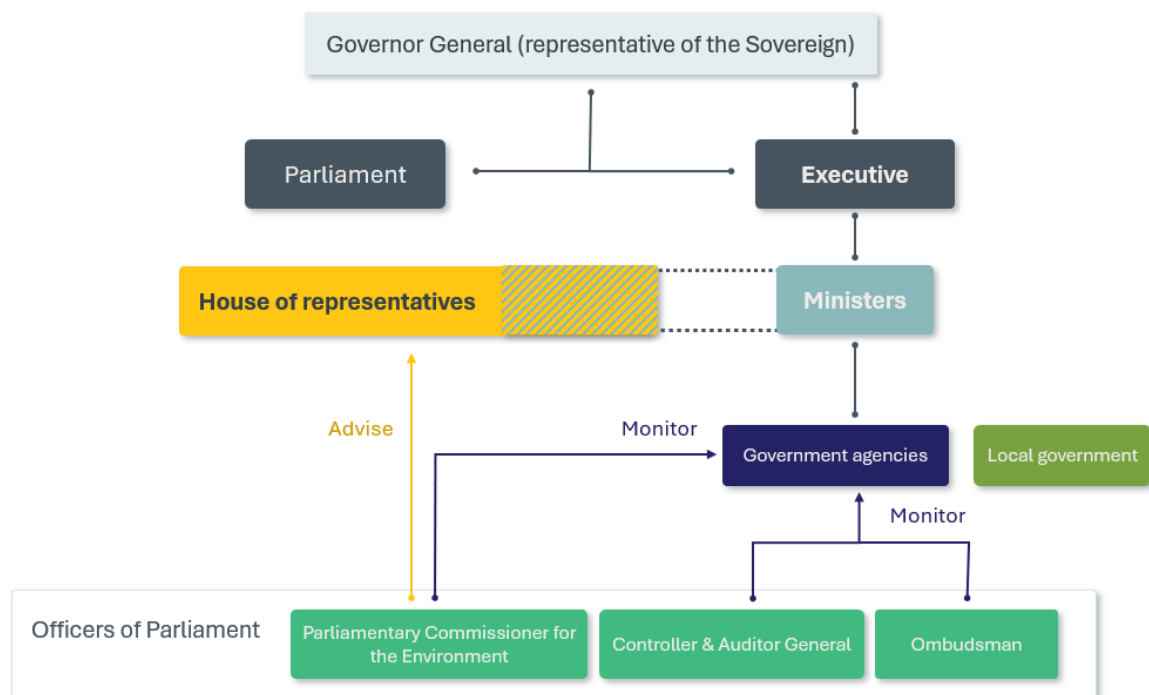


Figure 1: Representation of New Zealand's Parliamentary system.



I am not an auditor. My role is clearly laid out in legislation as being responsible for reviewing New Zealand's environmental management system, with the objective of maintaining and improving the quality of the environment. My mandate covers the environmental management system as a whole – from central government agencies to local government authorities. I can take the big picture view of how parts of the system work, or don't work, individually and together, and provide these insights to parliamentarians.

My work involves three types of activities: reviewing elements of New Zealand's environmental management system, investigating matters of environmental concern and helping Parliament's select committees with their scrutiny of legislation, enquiries, petitions and expenditure. I initiate my own agenda.

As you can probably imagine, when it comes to the investigative side of my work, the possibilities are vast. To ensure that my work is useful and has maximum impact, I generally focus my investigations in two areas – those topics that have been relegated to the 'too hard' basket by decision makers and those issues that are not yet on the public radar. To give an example of the 'too hard' variety, currently my office is midway through a project investigating the demands that economic production and consumption in New Zealand make on the natural world – this is difficult work that has not before been attempted at this level of detail in New Zealand. An example of an issue that I consider to be not sufficiently on the Government's radar, I am also investigating how we could better use technology (including data processing, sensor technology and artificial intelligence) to improve access and coordination of environmental data.

My office was an experiment in 1986 and remains unique, although I understand that Canada has a Commissioner of the Environment and Sustainable Development within its audit office. As I have often remarked, either New Zealand is trailblazing way in advance of the rest of the world, or the office is an evolutionary dead-end.

You may well ask why I am here speaking to you today as a non-auditor.

The answer is that I have spent a great deal of time trying to help legislators determine how much public money is being spent on protecting, maintaining and restoring our natural environment – and whether the money that is being spent is in fact making a difference. I have also looked at whether New Zealand's budgetary, accountability and performance reporting systems allow Parliamentarians and citizens to access this information. I would like to talk you through the work we have done and the conclusions we have drawn, in the hope that the New Zealand experience may provide you with some ideas.

During my first term as Commissioner from 2017 – 2022, I undertook a cycle of investigations into New Zealand's environmental reporting, research, and budgeting. This culminated in a report entitled '[*Environmental reporting, research and investment – Do we know if we're making a difference?*](#)'



To give you the briefest of summaries, I found that New Zealand Members of Parliament, and the public, lack the information necessary to be able to judge:

- the reasonableness of the Government's choice of environmental outcomes
- whether it is spending too little, roughly the right amount or more than it needs to achieve them
- whether whatever is being spent is being spent effectively.

To form a view on these issues, interested parties need to see the broad relationship between environmental issues, environmental outcomes and government spending, as well as precise links between environmental outcomes, key environmental policies and measures and the results of monitoring and evaluation. New Zealand's current budgetary and reporting framework makes it extremely difficult to see these links at either a high or a granular level. My office spent the best part of two years trying to make sense of this information. If we struggled, how can we expect parliamentarians, select committees or members of the public to do this?

Limitations of current approach

To explain these limitations, let's start with a simplified figure (see Figure 2 below) which outlines the interrelated components of how an effective performance and accountability reporting framework should work.

Firstly, we need a set of overarching environmental outcomes that will be able to cover any activities undertaken in the name of the environment. Then, the Government would set *its* priority environmental outcomes, ideally basing these on using a strong evidence base of environmental data. These will reflect political choices and trade-offs.

Plans and strategies can then be designed to implement the stated outcomes. Part of this planning should involve an understanding of how these plans will interact and where potential gaps may lie. Public money is then allocated to these strategies. Ideally granular spending information would be provided which shows how these link to each of the overarching outcomes.

Collected data then provides information on the impact of this spending. This information should also make it possible to look back and see how the outcomes link to spending and impact – allowing Parliamentarians to assess whether government spending has in fact made the difference it intended. This would be an ideal version of public accountability.

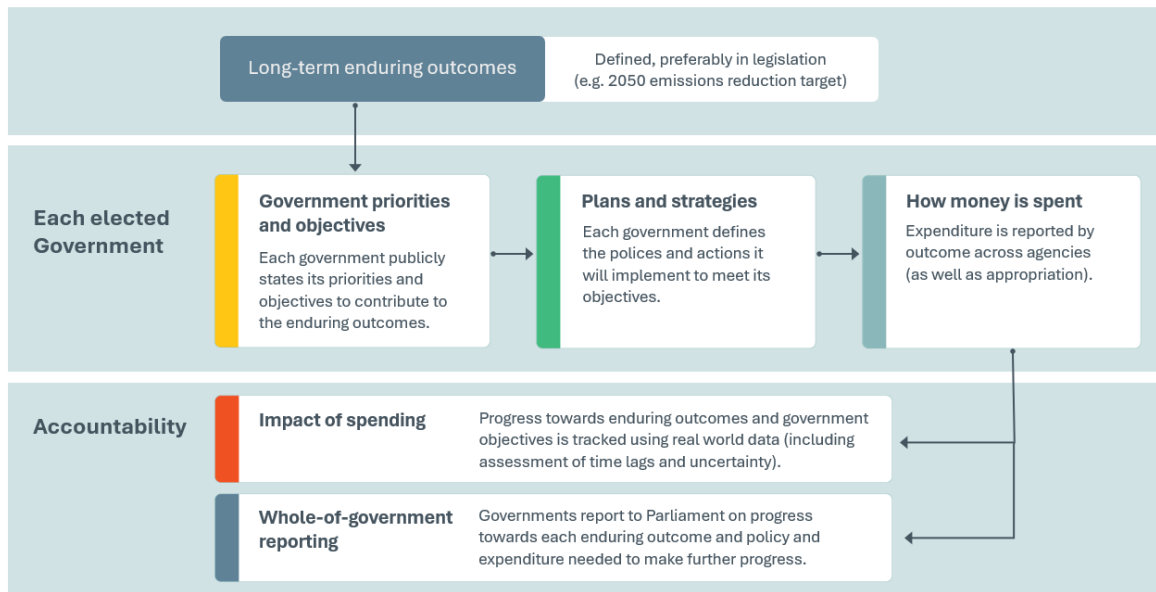


Figure 2: How an effective performance and accountability reporting framework should work

Now to what is currently happening within the New Zealand system. (see Figure 3 below)
The public sector has no agreed and consistent set of environmental outcomes. That makes it harder to identify and classify the elected Government's environmental priorities.

Unsurprisingly, this means there is also a lack of clarity about how plans and strategies link to environmental objectives and how these strategies could interact to determine how money is allocated, Parliamentarians have to look at each agency's strategic documents or appropriations. These are the formal legislative provision by which Parliament authorises Government expenditure. Each appropriation is the responsibility of a Minister and administered by an agency on behalf of that Minister. The strength of this approach is that it provides a transparent chain of accountability. But the information is siloed by agency.

Appropriations generally provide a clear and detailed account of the type of **outputs** (the goods and services) each agency is responsible for, but not of the **outcomes** the spending is being directed towards. The focus on outputs means that the environmental data collected often cannot answer questions relating to the impact the spending has on outcomes. With biodiversity conservation work, for example, performance reporting measures are based around activities and outputs such as the area of land subject to active pest management. This provides an overview of an agency's activity or 'busyness', but it does not reveal what is being achieved in terms of enhancing biodiversity outcomes.

Here it is also worth making the point that there can be a tension between what information agencies provide to meet their reporting obligations and what MPs and citizens want to know. But accountability is meaningless if the information provided doesn't answer their basic questions such as: is government spending on, for example, waste reduction initiatives *actually* reducing waste in New Zealand? Is expenditure designed to protect rare and endangered species *actually* protecting them?

Finally, this agency-level reporting on outputs makes it very difficult to gain a coherent or comprehensive assessment of environmental spending on outcomes at the whole of government level that will frequently span the activities of multiple agencies. There is no way to link outcomes back through the chain of expenditure, strategies and priorities.

These limitations mean that, currently in New Zealand, it is not possible to produce an estimate of what we are spending to protect and restore the environment nor to judge whether this spending is making a difference.

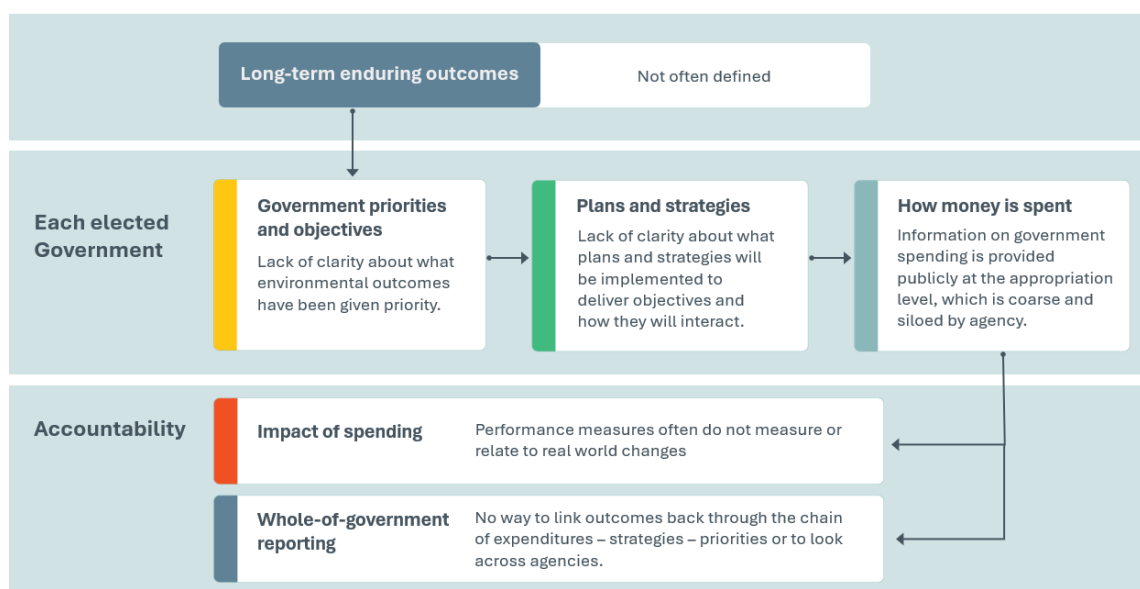


Figure 3: How New Zealand's performance and accountability reporting framework currently works

The same is true across all types of government expenditure. New Zealand's Auditor-General has raised similar concerns about the lack of whole-of-government reporting. He noted, as I have, that the current approach reduces the transparency of government spending and the ability of both Parliament and citizens to hold governments to account. Trust in our public institutions requires this transparency.

As a result of my report [*Do we know if we are making a difference?*](#) I provided a series of recommendations to the Government. Now, as Commissioner I can issue advice, but the Government does not have to take any notice of that advice. For this reason, I am careful to make what I consider to be workable and reasonable recommendations. I



don't expect immediate uptake: but if the recommendations are any good, they will eventually find their way into the thinking of one of the parties in Parliament.

In this case, my recommendations were as follows:

That the Government should clearly state its environmental outcomes and how it will achieve them. These should be framed in the context of enduring, long-term outcomes that all parties in Parliament can subscribe to – these are unlikely to change across governments and should ideally be set in legislation. But we also need to account for the political priorities each government will have so there should also be specific outcomes the Government of the day hopes to pursue within a shorter time horizon.

I also suggested that **agencies should tag expenditure that relates to the enduring, long-term outcomes and report on the contribution they have made.** This will make it much clearer what is being spent on each outcome even if the actions are split across different agencies and across budget appropriations.

Finally, I suggested that the **Government should provide a whole-of-government report to Parliament on the expenditure allocated to environmental outcomes and its progress towards those outcomes.** While some initial experimentation was undertaken by a parliamentary select committee during the term of the last Government, the concept has not to date been formally adopted as a regular part of the budget cycle.

Estimate of environmental expenditure

To address the limitations identified, in 2022 my office undertook a 'proof of concept' exercise to see if whole-of-government reporting on environmental expenditure was possible. Knowing what we spend where is a critical first step if we want to integrate outcomes into performance and accountability reporting. We produced an estimate of environmental expenditure for the 2019/2020 fiscal year by pulling together central government expenditure from publicly available appropriation data to provide a comprehensive and systematic picture of whole-of-government spending that contributed to the long-term enduring outcomes we had identified.

I had hoped that the Government would see the value in this reporting approach and take it up as part of the budget cycle but indicated that if they didn't, my office would produce it each year until they did. To date, the idea hasn't been picked up formally, so my office has gone ahead and produced estimates. We have now published four editions and are working on our fifth.

The estimate was intended as a complement to existing reporting to provide parliamentarians with the information they need to appropriately scrutinise government



spending decisions. It aimed to provide information so they could judge those fundamental issues I highlighted earlier:

- the Government's prioritisation of environmental challenges and outcomes;
- the general adequacy of responses to environmental issues in terms of whether the Government is spending too much or too little to achieve those outcomes; and
- the effectiveness of that expenditure in terms of its impact on environmental outcomes.

I also hoped the estimate could inform budgetary allocation decisions and enhance coordination across agencies with shared outcomes.

Estimate of Environmental Expenditure (EEE) method

The first challenge my office faced when putting together the initial estimate of environmental expenditure was determining appropriate outcomes. We looked to the international System of Environmental-Economic Accounting (SEEA) standards for guidance as to the nature of the environmental expenditure that should be accounted for. This expenditure was then classified using a hierarchical schedule of enduring and specific outcomes based on those used to structure New Zealand's state of the environmental reporting.

These outcomes needed to be uncontentious – high level goals that enjoy a public consensus that is shared across political parties. These outcomes are:

- Improving biodiversity and ecosystem functioning and resilience
- Improving the coastal and marine environment, including sustainable management of resources
- Improving land and freshwater, including sustainable management of resources
- Reducing pollution and waste
- Reducing greenhouse gas emissions and adapting to climate change
- Improving the efficiency and effectiveness of institutions designed to manage human interventions in the environment

Nested underneath these enduring outcomes are a further 18 specific outcomes.

No hierarchy is foolproof, but we tried to optimise ours to make it sufficiently detailed whilst remaining uncomplicated so that items can be categorised consistently between agencies. Ideally, these outcomes would be legislated to give longevity across governments. That's why they need to be uncontentious.

Data were obtained directly from public sector agencies that have significant environmental management functions and responsibilities. In the first year of the estimate this covered 12 agencies. We have now expanded that to cover 22 agencies.



Data was requested for budgeted expenditure, with agencies provided with a guidance document to help identify relevant spending. They were asked to classify expenditure at a more granular level – so below that of appropriations. But agencies were given discretion to report at the appropriation level if they felt it provided an accurate account of their spending. They were also asked to identify only those items of expenditure which they considered had **a material and significant environmental purpose**. This advice aimed to avoid two potential issues: creating an arduous administrative burden by expecting agencies to chase down every dollar of spending and any potential ‘greenwashing’ from agencies reporting on spending that only had tenuous links to environmental issues.

Given this flexibility, the approach adopted by agencies differed. My office undertook a quality assurance process to ensure that datasets provided were consistent with the definition of environmental expenditure and our classification framework. These datasets were then analysed to provide both a total estimate of environmental expenditure and an estimate disaggregated by agency and outcome. Here is a visual representation of [these results for 2024/2025](#).

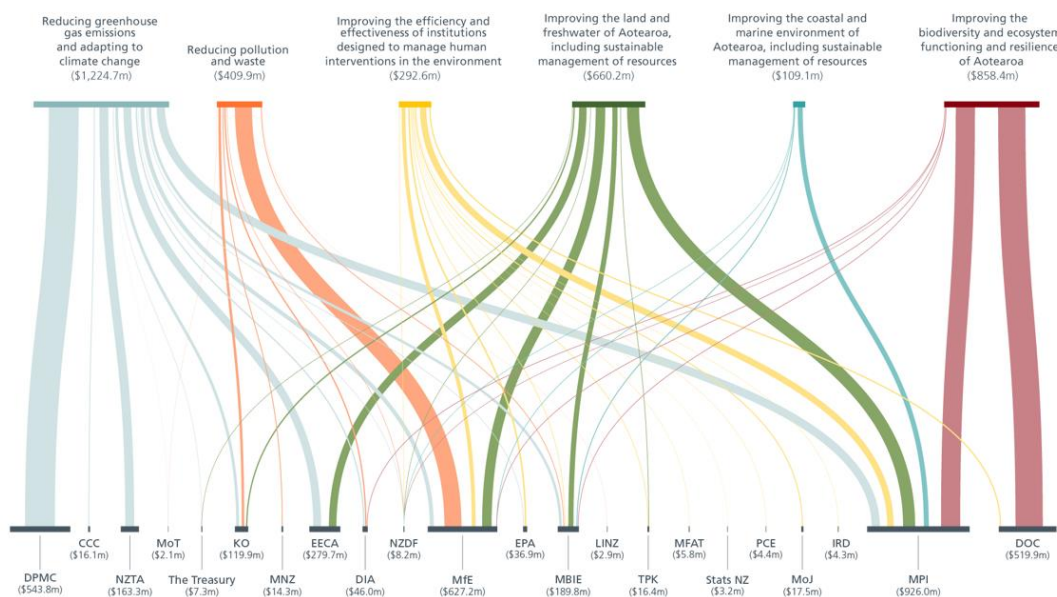


Figure 4: Sankey diagram showing environmental expenditure budgeted for 2024/25 by government agencies attributed to environmental outcomes.

In this figure, the light blue lines relate to climate change spending with the flows linking down to the government agencies at the bottom. You’ll see the bulk of this was spent by the Department of Prime Minister and Cabinet – this was primarily climate adaptation spendings related to disaster responses. Next, the orange lines relate to reducing waste and pollution– with fewer agencies responsible for this outcome. Improving our land and freshwater, represented by the green lines, was primarily the responsibility of our



Ministry for Primary Industries, our Ministry for the Environment and our energy efficiency authority.

Spending on the coastal and marine environment, shown by the darker blue lines, is the lowest across environmental outcomes, and spending relating to biodiversity and ecosystem functioning (red lines) is unsurprisingly related to New Zealand's Department of Conservation and Ministry for Primary Industries. It costs a lot to do all these things. The final outcome, represented by the yellow lines, recognises the costs of the various institutions in managing interventions in the environment, which, as expected, is spread across agencies.

For this year, we found that agencies had budgeted \$3.6 billion for the environment, about 2% of total Government's spending. The greatest spend was allocated to the enduring outcome 'reducing greenhouse gas emissions and adapting to climate change', with \$1.2 billion overall. Of this \$722 million was directed to climate adaptation, while \$471 million was directed towards climate mitigation activities.

This is the first estimate in the series in which climate adaptation expenditure surpassed climate mitigation. For comparison, in the 2023/2024 estimate \$55 million was directed towards climate adaptation with \$840 million budgeted for mitigation. This change was in part a result of the extreme weather events that occurred in 2023/2024 including Cyclone Gabrielle and the subsequent recovery efforts. The estimate helped to clarify an important change in spending that may not otherwise have been easily identified.

Adaptation spending differs from other forms of environmental expenditure in that it is not incurred to protect the environment, but rather to secure protection *from* the environment. New Zealand's current approach to this spending is reactive – responding to disasters as they occur. With climate change increasing the frequency and severity of such events, we can expect to see greater spending on adaptation. A reactive approach is likely to exaggerate those costs.

Issues with the estimate

Our estimate has been welcomed by Parliament's Environment Select Committee, which is responsible for scrutinising government spending on environmental activities. Over the five years we have been working on this project, many refinements have been made to the methodology and agencies have become more familiar with the exercise and providing datasets. However, issues still arise.

A key challenge is that to some extent, the application of environmental expenditure and the classification framework will always be subjective. Individuals working in the accounting teams of data supplying agencies may struggle to apply the framework or to decide on whether a unit of expenditure meets the threshold of serving a 'material and significant environmental purpose'.



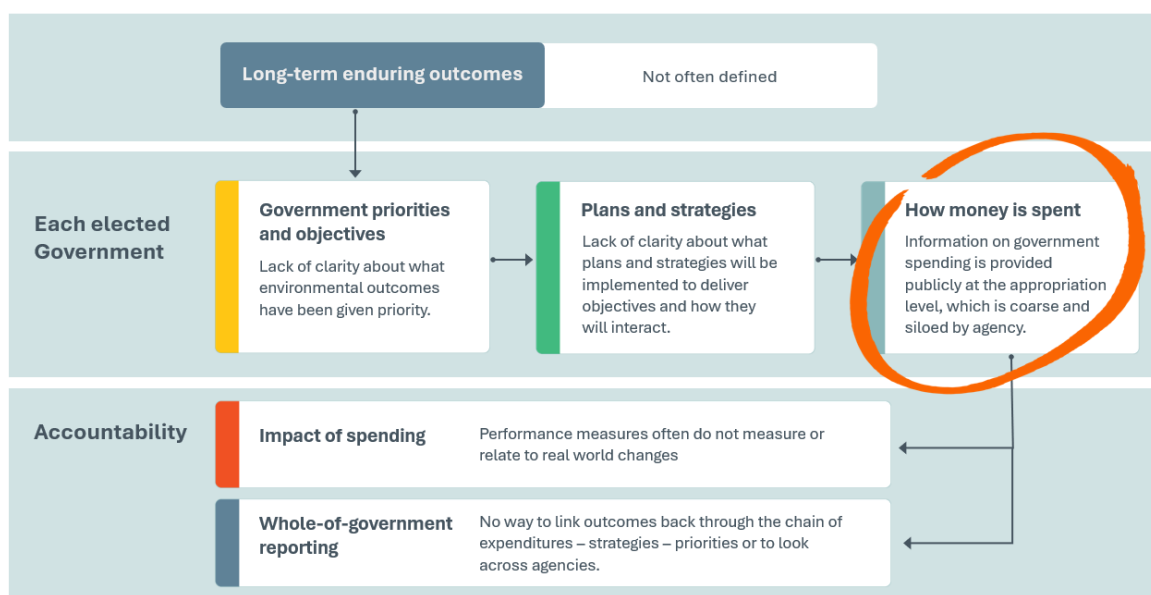
Allowing for agency discretion as to the appropriate financial unit creates inconsistency in the level of granularity between datasets. However, this discretion is important to account for the different level of spending across various agencies (some only have very limited environmental functions) and to avoid making the exercise overly burdensome.

It is also important to note that general deficiencies in environmental information in New Zealand mean that the estimates produced by my office cannot be definitive. It is a coarse assessment and only part of the evidence base required for more informed decision making and parliamentary scrutiny.

Now, a warning. What I am about to say something that might make some of the accountants in the room uncomfortable.

The challenges we face mean that the expenditure information we produce is *not* precise. But it doesn't need to be. It is not an accounting exercise to track every dollar and cent to make sure things aren't misused. Our current budget accountability framework does that very well. But the estimate is good enough for the purpose for which we needed it – obtaining a general sense of what is being spent in pursuit of what outcomes and whether anything is actually being achieved. Exact figures on both sides of that ledger would be hard to get but aren't needed anyway.

As mentioned earlier, the estimate is just one part of the puzzle. If we go back to the accountability framework (see below) – the estimate provides information about where the money is spent. It does not include an assessment of the effectiveness of this spending or its alignment with government objectives. It also does not reveal whether the strategies being implemented by the Government are the most effective ones. Much more could be done to improve the transparency of environmental expenditure – but not without significant improvements in the quality of New Zealand's environmental data.





I would like now to share some brief thoughts on the critical importance of environmental information. I'm sure I am preaching to the converted.

If any one issue will define my tenure as Commissioner, it will most likely be my insistence that New Zealand improves its environmental information. Without adequate data, we will remain constrained in our ability not only to understand, plan and manage environmental issues, but also to manage energy, transport, agriculture, forestry, scientific research and statistics.

In New Zealand, the deficiency of our environmental information is often framed as a lack of data. The solution often proposed is to collect more data in more places. While there are undoubtedly significant gaps in our datasets, there is still a huge amount held disparately across central and local government, research institutions, commercial bodies and community groups. This information is often either unknown in the public arena or relatively inaccessible.

What is needed is the ability to easily and quickly draw together existing information from these disparate sources so that it can be used to support robust decision making. A system that can easily pull together information in this way will also be one that can swiftly identify gaps that can be filled as investment allows.

In New Zealand we have an example of how this could be done in the integrated data infrastructure system set up to support social, health and socio-economic policy. This system has the ability to generate quantitative insights on the effectiveness of policy interventions, both in terms of policy design and monitoring and evaluation. This model is a useful starting point, but it is not a perfect solution. The 'connecting node' of this system is the 'individual' which is logical for social, taxation and health data. For environmental data, the connecting node will most likely be 'geospatial'. Determining the appropriate resolution of spatial data will add complexity to this system.

What I have recommended to Parliament is that it investigates a federated data system to bring together the environmental data held across government, commercial and non-government agencies. Such a system transparently maps multiple autonomous database systems into a single federation (see Figure 5 below). Crucially, each data source remains independent, with control of data remaining with the host organisation. The constituent databases are interconnected by a series of consistent policies to create a uniform network where member networks can share data and services.

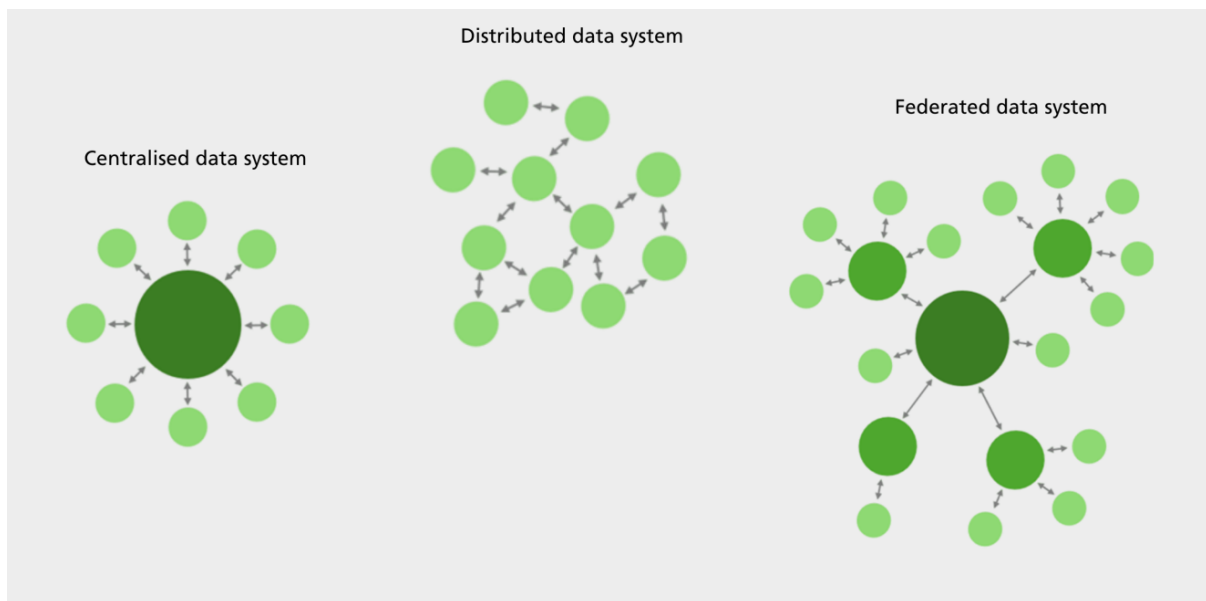


Figure 5: Representation of centralised, distributed and federated database systems.

In recommending this, I acknowledge that such an undertaking will be expensive and take time to implement. However, in my view, environmental data should be treated by governments as fundamental infrastructure necessary for sound environmental and resource management

When an effective performance and accountability reporting framework is informed by robust environmental data, decision makers and the public will have the tools they need to understand if the Government's efforts to address environmental issues are indeed making a difference.

There are many ways to approach the challenge of understanding the outcomes of environmental expenditure – I present only one possibility. I am aware of the efforts of this organisation to provide tools and advice to help members confront these issues. This is valuable and important work – as we can only progress at the speed needed through international cooperation. I commend INTOSAIC for events such as this conference where knowledge and experience can be shared widely. Some of what I have shared today of the New Zealand experience may be useful to your national context, and some not. But I hope at the very least this quick overview has provided some interesting food for thought.