Policy performance monitoring for complex systems and wicked problems

Claire Mortimer, MBIE

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I want to reflect on **how** the complexity of freshwater systems shapes the nature of freshwater policy, which in turn shapes the core purpose of policy performance monitoring.

So I want to talk about the core purpose of policy performance monitoring.

When we attempt to manage fresh water we are attempting to manage a dynamic socio-ecological system. That system has emergent not mechanical qualities; the people using the waterways don't always behave as we expect them to – they are not always utility-maximising rational decision-makers. At the same time external forces – like the climate or commodity prices – create unpredictable change to the water system.

So what does this complexity mean for the nature of freshwater policy?

Richard Dawkins first used the metaphor of throwing a rock and a bird to describe the difference between classical science and the science of complex dynamic systems. This metaphor has been used to describe the difference between solving simple policy problems and complex ones.

When we throw a rock, we have a pretty good idea where that rock will land – we can predict the impact of our policy. But when we throw a bird – or when we intervene in a complex system – it's a lot less predictable because when we throw a bird, it takes flight.

We might know a lot about bird behaviour and about the terrain we are throwing it into – we might have laid out great policy incentives (the bird's favourite seed) to encourage it to land where we want. But many things can happen during that bird's flight: it might find food it likes better, it might not notice the bird food, strong winds might blow it off course, or while eating bird food it might get eaten by a cat.

Like birds, the policy impacts of complex systems are not predictive. It is not like throwing rocks – it's about understanding as much as we can about the system but recognising we can't know everything. It's about the adaptive management of throwing birds.

So what does this mean for the core purpose of policy performance monitoring?

It means that it is fundamentally about **learning …** at its heart it is less about asking the question did we get it right? But rather asking what do we need to do next?

There are four overarching questions in this learning process:

First – Was the policy well implemented or are there implementation challenges we have to address? And we of course need to explore that question with the people implementing the policy just as we need to design policy with the people implementing that policy.

Second – Did the policy have its anticipated impact? Did the bird fly where we wanted it to and did it fly there because we threw it or because of something else?

Third – **Did any unanticipated factors influence the results?** Were there violent storms or hungry cats?

And finally taking the answers of the first three questions – **what do we need to change**, improve, backtrack start afresh; in other words, what do we need to do next?

These questions are hard and require forethought and time to answer.

But answering them then leads us to the really hard bit…

If policy performance monitoring is essentially about **learning**, how do we ensure that that learning is then fed back into our decision making? What cultural shifts, what institutional changes are required to enable us, especially those working in political organisations, to routinely report on mistakes as well as successes, to have the time to reflect on our performance in the busyness of government?

The challenge of managing complex freshwater systems is therefore inherently about the challenge of building learning organisations and building a learning local and central government sector. That is a huge challenge, and the VMO project – and the experiences shared today – is an excellent example of meeting that challenge and in learning the complex art of throwing birds.