

Contemporary
Government

Challenges



Australian Government

Australian Public Service Commission

Tackling Wicked Problems

A Public Policy Perspective



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Commissioner's Foreword

The Australian Public Service (APS) is increasingly being tasked with solving very complex policy problems. Some of these policy issues are so complex they have been called 'wicked' problems. The term 'wicked' in this context is used, not in the sense of evil, but rather as an issue highly resistant to resolution.

Successfully solving or at least managing these wicked policy problems requires a reassessment of some of the traditional ways of working and solving problems in the APS. They challenge our governance structures, our skills base and our organisational capacity.

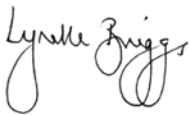
It is important, as a first step, that wicked problems be recognised as such. Successfully tackling wicked problems requires a broad recognition and understanding, including from governments and Ministers, that there are no quick fixes and simple solutions.

Tackling wicked problems is an evolving art. They require thinking that is capable of grasping the big picture, including the interrelationships among the full range of causal factors underlying them. They often require broader, more collaborative and innovative approaches. This may result in the occasional failure or need for policy change or adjustment.

Wicked problems highlight the fundamental importance of the APS building on the progress that has been made with working across organisational boundaries both within and outside the APS. The APS needs to continue to focus on effectively engaging stakeholders and citizens in understanding the relevant issues and in involving them in identifying possible solutions.

The purpose of this publication is more to stimulate debate around what is needed for the successful tackling of wicked problems than to provide all the answers. Such a debate is a necessary precursor to reassessing our current systems, frameworks and ways of working to ensure they are capable of responding to the complex issues facing the APS.

I hope that this publication will encourage public service managers to reflect on these issues, and to look for ways to improve the capacity of the APS to deal effectively with the complex policy problems confronting us.



Lynelle Briggs
Australian Public Service Commissioner

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1. Introduction

Many of the most pressing policy challenges for the APS involve dealing with very complex problems. These problems share a range of characteristics—they go beyond the capacity of any one organisation to understand and respond to, and there is often disagreement about the causes of the problems and the best way to tackle them. These complex policy problems are sometimes called ‘wicked’ problems.

Usually, part of the solution to wicked problems involves changing the behaviour of groups of citizens or all citizens. Other key ingredients in solving or at least managing complex policy problems include successfully working across both internal and external organisational boundaries and engaging citizens and stakeholders in policy making and implementation. Wicked problems require innovative, comprehensive solutions that can be modified in the light of experience and on-the-ground feedback. All of the above can pose challenges to traditional approaches to policy making and programme implementation.

There are numerous examples of wicked policy problems, including:

- *Climate change* is a pressing and highly complex policy issue involving multiple causal factors and high levels of disagreement about the nature of the problem and the best way to tackle it. The motivation and behaviour of individuals is a key part of the solution as is the involvement of all levels of government and a wide range of non-government organisations (NGOs).
- *Obesity* is a complex and serious health problem with multiple factors contributing to its rapid growth over recent decades. How to successfully address obesity is subject to debate but depends significantly on the motivation and behaviour of individuals and, to a lesser degree, on the quality of secondary health care. Successful interventions will require coordinated efforts at the federal, state and local government levels and the involvement of a range of NGOs.

- *Indigenous disadvantage* is an ongoing, seemingly intractable issue but it is clear that the motivation and behaviour of individuals and communities lies at the heart of successful approaches. The need for coordination and an overarching strategy among the services and programmes supported by the various levels of government and NGOs is also a key ingredient.
- *Land degradation* is a serious national problem. Given that around 60% of Australia's land is managed by private landholders, it is clear that assisting and motivating primary producers to adopt sustainable production systems is central to preventing further degradation, achieving rehabilitation and assisting in sustainable resource use. All levels of government are involved in land use as is a range of NGOs.

This discussion paper explores the characteristics of wicked problems and the challenges they pose for the traditional approaches and skills sets of policy makers. Although developing effective ways to tackle wicked problems is an evolving art, this paper identifies some of the main ingredients that seem to be required.



2. Characteristics of Wicked Problems

The term ‘wicked’ in this context is used, not in the sense of evil, but as a crossword puzzle addict or mathematician would use it—an issue highly resistant to resolution. The terminology was originally proposed by H. W. J. Rittel and M. M. Webber, both urban planners at the University of California, Berkeley, USA in 1973.¹ In a landmark article, the authors observed that there is a whole realm of social planning problems that cannot be successfully treated with traditional linear, analytical approaches. They called these issues wicked problems and contrasted them with ‘tame’ problems. Tame problems are not necessarily simple—they can be very technically complex—but the problem can be tightly defined and a solution fairly readily identified or worked through. The original focus of the wicked problem literature was on systems design at a more ‘micro’ level, but the concept has gradually been applied to broader social and economic policy problems.

Wicked problems are difficult to clearly define. The nature and extent of the problem depends on who has been asked, that is, different stakeholders have different versions of what the problem is. Often, each version of the policy problem has an element of truth—no one version is complete or verifiably right or wrong. The debate concerning the causes, the extent and the solutions to climate change is a good example.

Wicked problems have many interdependencies and are often multi-causal. There are also often internally conflicting goals or objectives within the broader wicked problem. In dealing with the use and effects of illicit drugs, for example, there is tension between the goal of minimising harm to existing drug users via measures such as the provision of safe injecting rooms and clean needles, and the goal of sending a clear message that illicit drug use is illegal. It is the interdependencies, multiple causes and internally conflicting goals of wicked problems that make them hard to clearly define. The disagreement among stakeholders often reflects the different emphasis they place on the various causal factors. Successfully addressing wicked policy problems usually involves a range of coordinated and interrelated

¹ H. W. J. Rittel and M. M. Webber, ‘Dilemmas in a General Theory of Planning’, *Policy Sciences*, Vol. 4, No. 2, June 1973, pp. 155–69.

responses, given their multi-causal nature; it also often involves trade-offs between conflicting goals.

Attempts to address wicked problems often lead to unforeseen consequences. Because wicked policy problems are multi-causal with many interconnections to other issues, it is often the case that measures introduced to address the problem lead to unforeseen consequences elsewhere. Some of these consequences may well be deleterious. It has been asserted, for example, that the success of policies designed to reduce atmospheric pollution in the USA and Western Europe may be partly responsible for an apparent increase in global warming due to the impact of a reduction in sulphur particles in the atmosphere on the formation of clouds that trap heat in the atmosphere.²

Wicked problems are often not stable. Frequently, a wicked problem and the constraints or evidence involved in understanding the problem (e.g. legislation, scientific evidence, resources, political alliances), are evolving at the same time that policy makers are trying to address the policy problem. Policy makers have to focus on a moving target.

Wicked problems usually have no clear solution. Since there is no definitive, stable problem there is often no definitive solution to wicked problems. Problem-solving often ends when deadlines are met, or as dictated by other resource constraints rather than when the 'correct' solution is identified. Solutions to wicked problems are not verifiably right or wrong but rather better or worse or good enough. In some cases, such as the challenge of illicit drug use, the problem may never be completely solved. To pursue approaches based on 'solving' or 'fixing' may cause policy makers to act on unwarranted and unsafe assumptions and create unrealistic expectations. In such cases, it may be more useful to consider how such problems can be managed best.

Wicked problems are socially complex. It is a key conclusion of the literature around wicked problems that the social complexity of wicked problems, rather than their technical complexity, overwhelms most current problem-solving and project management approaches. Solutions to wicked problems usually involve coordinated action by a range of stakeholders, including organisations (government agencies at the federal, state and local levels), non-profit organisations, private businesses and individuals.

Wicked problems hardly ever sit conveniently within the responsibility of any one organisation. Even if the solution to achieving safer communities is opaque, it is clear that it involves many organisations beyond the police. It is also clear, for example, that environmental issues cannot be dealt with at any one level of government. They require action at every level—from the international to the local—as well as action by the private and community sectors and individuals.

Wicked problems involve changing behaviour. The solutions to many wicked problems involve changing the behaviour and/or gaining the commitment of individual citizens. The range of traditional levers used to influence citizen behaviour—legislation, fines, taxes, other sanctions—is often part of the solution but these may not be sufficient. More innovative, personalised approaches are likely to be necessary to motivate individuals to actively cooperate in achieving sustained behavioural change.

2 Discussed in L. Briggs and R. Fisher, 'Fashions and Fads in Public Sector Reform' (Paper prepared for the CAPAM Conference, Sydney, October 2006), p. 18.

Some wicked problems are characterised by chronic policy failure. Some longstanding wicked problems seem intractable. Indigenous disadvantage is a clear example—‘Its persistence has not been for want of policy action. Yet it has to be admitted that decades of policy action have failed.’³

Climate Change—A Wicked Problem

One issue that illustrates many of the characteristics of wicked problems is the current debate about the causes of and solutions to climate change. The debate has been simplified into three competing ‘stories’ which emphasise different aspects of the climate change issue.⁴ Each ‘story’ tends to define itself in contradistinction to the other two policy stories and proposes different policy solutions.

- **Profligacy.** This is the story that sees prevailing structural inequalities, particularly between countries, as having led to increasingly unsustainable patterns of consumption and production. In this story, urgent fundamental reform of political institutions and unsustainable lifestyles is required. Decision-making needs to be decentralised down to the grass roots level and citizens need to dramatically simplify their lifestyles to conserve the earth’s resources. The onus is on advanced capitalist states to take action.
- **Lack of global planning.** This story sees the underlying problem as the lack of global governance and planning that would rein in global markets and factor into prices the costs to the environment. It makes no sense for any household, firm or country to unilaterally reduce its emissions, as each individual contribution is too small to make a difference. Remedying climate change would require all governments and parliaments to formally agree on the extent to which future emissions should be cut, and how and when. States would then impose these formal intergovernmental agreements on the multitude of undiscerning consumers and producers within their borders.
- **Much ado about nothing.** This story sees much of the debate as scaremongering by naïve idealists who erroneously believe the world can be made a better place (profligacy story), or by international bureaucrats looking to expand their budgets and influence (lack of global planning). Some with this view are sceptical about the diagnosis of climate change itself, while others are convinced that, even if correct, the consequences will be neither catastrophic nor uniformly negative. Technological progress, adaptation and dynamic markets are the solution to the negative effects of climate change.

The three stories tell plausible but conflicting tales of climate change. None of the stories are completely wrong, yet at the same time none are completely right—each story focuses on some partial aspect of the debate. The stories’ proponents are unlikely to agree on the fundamental causes of and solutions to the global climate change issue. And since these stories contain normative beliefs (either in egalitarian structures, in hierarchical bureaucracies, or in markets) they tend to be immune to enlightenment by scientific facts. This leaves the policy maker with a dynamic, plural and argumentative system of policy definition—typical of many wicked policy problems.

³ K. Henry, ‘Managing Prosperity’ (Address to the Economic and Social Outlook Conference, Melbourne, 2 November 2006), p. 5.

⁴ The three different stories of climate change are identified in M. Thompson and M. Verweij 2004, ‘The Case for Clumsiness’ (Singapore Management University, Humanities and Social Sciences Working Paper Series, No. 5), pp. 12–23.

In reality, many policy problems lie somewhere on a continuum between tame and wicked. They may display some but not all of the characteristics of wicked problems. Some policy problems move along the continuum over time. Tobacco control is a good example. In Australia, there is broad agreement among all levels of government and NGOs on the scope of the problem of tobacco use and the shape of the comprehensive strategy that needs to be implemented to successfully control it. The National Tobacco Strategy includes regulation to control promotion, place of sale and place of use, taxation, warnings on packaging, as well as cessation services, pharmacotherapies and information campaigns. There is broad acceptance among a large majority of the general population that tobacco smoking is harmful, and that even though tobacco is a legal product for those aged over 18 years, it is legitimate for governments to aim to influence and regulate the behaviour of citizens in regard to tobacco use.

However, this broad agreement among governments, NGOs and the majority of citizens on the nature of and solutions to tobacco control has developed and strengthened over time. When tobacco control was first conceived of in Australia 30 years ago, smoking was entrenched in the social fabric of Australian society. The evidence base concerning health effects was just developing, the tobacco industry was in denial about the safety and addictive nature of its product, and many scientists and some governments were ambivalent about the issue. Tobacco use in some form or another is centuries old and the concept that it could be implicated in the development of disease was received with scepticism by many in the Australian community. Strengthening of the medical evidence on the harmful effects of tobacco, increased public awareness of the harmful effects of smoking (in part due to the educational and mass media activities undertaken by governments and NGOs), the denormalisation of smoking, and the sharing of tobacco control measures between nations have been the major factors in the current high levels of agreement around this complex issue.

Even today, there are aspects of tobacco control that remain wicked, including tackling the persistent high smoking rates for particular groups such as Indigenous people, pregnant teenagers and people with a mental illness. Debate remains around the most effective balance among the policy objectives of prevention, cessation and protection. There are those within the tobacco control community, for example, who advocate the use of reduced harm nicotine products and others who advocate phasing out or banning the retail of combustible tobacco products. There is also disagreement on whether the focus of government spending should remain on cessation or whether an increased focus on prevention and/or harm reduction should occur.

We can only speculate about the reasons behind the rise and recognition of wicked policy problems at this point in time. It is a complex subject in itself and the following ideas merely scratch the surface of the debate. The expansion of democracy, market economies, globalisation, travel and social exchanges may have highlighted value differences, weakened traditional authority and control mechanisms, and promoted dissensus rather than consensus in the problem-solving process. Perhaps the technological and information revolutions we have experienced enable more people to become active participants in problem-solving and, in so doing, increase the complexity of the process. Perhaps the same technological

and information revolutions also increase the expectations of citizens in many countries for higher standards of living and that governments should take responsibility for managing a greater range of complex problems. In any case, since Rittel and Webber first coined the term in the 1970s, there has been a steady increase in the literature and research around wicked problems.



3. Possible Strategies for Tackling Wicked Problems

There is no quick fix for wicked policy problems, no glib formula about ‘Seven Steps to Crush Social Complexity’ or ‘Tame Your Way to the Top’.⁵ Most of the literature advocates a collaborative approach to wicked problems, but some research acknowledges that other approaches are possible.

Professor Nancy Roberts suggests that the key consideration is how power is dispersed among the stakeholders. She identifies three possible strategies:⁶

- *authoritative strategies*. These give the problem to some group (or an individual), who take on the problem-solving process while others agree to abide by its decisions. Identification of this small set of stakeholders may rest on their knowledge and expertise, organisational position in the hierarchy, information or coercive power. An essential ingredient is that other stakeholders acquiesce in the transfer of power to the anointed few and agree or are forced to abide by their decisions. Examples include the High Court decision around native title and Reserve Bank decisions around interest rates. Such authoritative strategies can also be useful in emergency situations.
 - Key advantages include efficiency and timeliness.
 - Key disadvantages include the potential disregard for important issues and considerations, as authorities and experts tend to search for solutions within their narrow bandwidth of experience, and the lost opportunity for learning. If problem-solving is left to experts, especially in a democratic society, then citizens can become further distanced or alienated from the important issues of their time.

5 J. Conklin 2006, *Dialogue Mapping: Building Shared Understanding of Wicked Problems*, John Wiley & Sons, Chichester, West Sussex, p. 34.

6 N. Roberts 2000, ‘Coping With Wicked Problems’ (Naval Postgraduate School, Monterey, California, Department of Strategic Management Working Paper).

Their commitment to the proposed solution may be weak which may or may not matter depending on the issue (the issue of citizen engagement is discussed further in section 8 below).

- *competitive strategies*. Central to the pursuit of such strategies is the search for power, influence and market share—stakeholders following this strategy generally assume a win-lose outcome. The competitive federalism of the Australian system can result in this approach, for example, when the States compete for foreign and local investment.
 - Key advantages include the creation of new ideas and innovation and the provision of choice, for example, competition between Job Network providers.
 - Key disadvantages include conflict and stalemates that occur when stakeholders have enough power to block one another but not enough power to achieve their agenda. Competition can also consume resources that could be spent on problem-solving.
- *collaborative strategies*. These are supported by the bulk of the literature (including by Professor Roberts) as being the most effective in dealing with wicked problems that have many stakeholders amongst whom power is dispersed. It is particularly relevant where part of the solution to the problem involves sustained behavioural change by many stakeholders and/or citizens. At the core of collaboration is a win-win view of problem-solving. Partnerships, joint ventures, whole of (or joined up) government, international treaties and information campaigns to influence lifestyle choices are all variations on this strategy.
 - Key advantages include higher stakeholder commitment, more comprehensive and effective solutions, and fewer resources having to be used by any one stakeholder.
 - Key disadvantages include increased transaction costs (these costs can be significant) and the fact that the skills of collaboration are in limited supply. In worst cases collaboration can end poorly—dialogue can turn into conflict, hardened positions and stalemate.

The remainder of this section is essentially premised on the assumption that collaborative strategies are the best approach to tackling wicked problems which require behavioural change as part of their solution. Nevertheless, it should be acknowledged that in some circumstances the use of authoritative or competitive strategies may be useful to agencies tasked with tackling a wicked problem. Authoritative and competitive strategies could be combined with collaborative approaches, for example, an expert advisory group could identify the preferred package of measures after an initial collaborative strategy has been used to identify the full range of views, interconnections, causes and possible solutions.

One example of a successful competitive strategy used in combination with a generally collaborative approach can be found in the area of tobacco control. State governments have responsibility for regulating smokefree environments and a dynamic tendency has been observed where States and Territories competitively leapfrog each other's regulation in the area of smokefree places and other regulations. Many stakeholders believe that this has achieved quicker incremental toughening of such regulations than would have occurred through a cooperative policy of adopting a more uniform nationwide approach.



4. Avoiding a Narrow Approach

Wicked policy problems are difficult to tackle effectively using the techniques traditionally used by the public sector. Traditional policy thinking suggests that the best way to work through a policy problem is to follow an orderly and linear process, working from problem to solution. The process would usually start by understanding and defining the problem. This involves gathering and analysing data and other evidence and consulting with stakeholders. Once the problem is specified, and the evidence and stakeholder views are analysed, options and a preferred option can be determined. Outcomes and outputs are identified, implementation plans are designed and performance targets specified. It is often thought that the more complex the problem is, the more important it is to follow this orderly flow.

The consensus in the literature, however, is that such a linear, traditional approach to policy formulation is an inadequate way to work with wicked policy problems. This is because part of the wickedness of an issue lies in the interactions between causal factors, conflicting policy objectives and disagreement over the appropriate solution. Linear thinking is inadequate to encompass such interactivity and uncertainty. The shortcomings of a linear approach are also due to the social complexity of wicked problems. The fact is that a true understanding of the problem generally requires the perspective of multiple organisations and stakeholders, and that any package of measures identified as a possible solution usually requires the involvement, commitment and coordination of multiple organisations and stakeholders to be delivered effectively.

The handling of wicked problems requires holistic rather than linear thinking. This is thinking capable of grasping the big picture, including the interrelationships between the full range of causal factors and policy objectives. By their nature, the wicked issues are imperfectly understood, and so initial planning boundaries that are drawn too narrowly may lead to a neglect of what is important in handling the wicked issues. It is in this unforeseen

interconnection that policy problems grow and policy failures arise. “There is an ever-present danger in handling wicked issues that they are handled too narrowly.”⁷

There is a variety of ways that organisations try to tame wicked problems by handling them too narrowly. The most common way is *locking down the problem definition*. This often involves addressing a sub-problem that can be solved. If the problem is how to reduce violence in schools, for example, policy makers may focus on the more tractable, narrow problem of how to install metal detectors in school entrances. Or, if the problem is obesity in children, the more tractable but narrow problem could be removing unhealthy food from school canteens.

If policy and performance measures are limited to the sub-problem rather than the wicked problem, the problem can appear solved at least in the short-term. If the performance measure is that school canteens no longer offer unhealthy foods, for example, this may be achievable. An unintended consequence and a reassertion of the wicked problem may be that more children no longer buy their lunch at school canteens but instead miss lunch, save their lunch money, and buy junk food at the shops on the way home from school. This is also a good example of how a tame solution can exacerbate the problem—some children may now eat more unhealthy food than they did previously, and they miss their lunch!⁸ It is also another illustration of the unintended consequences that can result from interventions to address wicked problems. Unintended consequences tend to occur even more frequently if the problem has been artificially tamed, that is, it has been too narrowly addressed and the multiple causes and interconnections not fully explored prior to measures being introduced.

This does not mean that at some stage in the policy formulation process it will not be necessary to identify the components of the wicked problem and possible practical solutions as part of a comprehensive and coordinated set of measures to address the problem. Obviously, the type of food offered in school canteens is part of the solution to childhood obesity. But this fragmentation of the wicked problem would ideally occur after all the interconnections and social complexities have been identified, discussed and addressed as part of a coordinated strategy.

7 M. Clarke and J. Stewart 1997, ‘Handling the Wicked Issues—A Challenge for Government’ (University of Birmingham, School of Public Policy Discussion Paper), University of Birmingham, 1997, p. 4.

8 According to the ABC TV programme ‘Difference of Opinion’ (‘Beating the Bulge’, 8 April 2007), this has occurred in some NSW schools as a result of adopting healthy eating options in school canteens.



5. The Need for Innovative and Flexible Approaches

A traditional bureaucracy, divided into vertical silos, in which most of the authority for resolving problems rests at the top of the organisation, is not well-adapted to support the kinds of process necessary for addressing the complexity and ambiguity of wicked problems. Bureaucracies tend to be risk averse, and are intolerant of messy processes. They excel at managing issues with clear boundaries rather than ambiguous, complex issues that may require experimental and innovative approaches. How can we stimulate and nurture the innovation and experimentation in the public sector that is needed to address wicked problems?

It has been argued that the public sector needs to adopt more systematic approaches to social innovation as opposed to the current rather ad hoc approach:

How many departments or agencies have a board level director responsible for innovation—for models that may be mainstream in 2020 or 2030? How many have significant budgets for innovation—or anything remotely comparable to the 2–4% of GDP that is generally seen as the right level for nations to spend on R&D? How many can point to the flow of new models in their service that are being cultivated, developed, improved, tested?⁹

Innovation in public services does raise additional issues compared to innovation in private sector services, particularly around managing risk—‘... the only way to have good ideas [is] to have lots of ideas and discard the bad ones, but you cannot afford too much creativity with benefit payments or traffic lights, school curriculums or court procedures. Risks have to be carefully managed.’¹⁰ Nevertheless, while the primary responsibility of public sector managers is to deliver an excellent service and achieve continuous improvement, a secondary

⁹ G. Mulgan, ‘360 Degree Improvement and the Imperative of Social Innovation’ (Address to the National School of Government, UK Public Services Reform Conference, London, June 2006), p. 3 <<http://www.youngfoundation.org/node/297>>

¹⁰ G. Mulgan, ‘360 Degree Improvement and the Imperative of Social Innovation’, p. 4.

responsibility is to ensure that part of the organisation is focused on the models and services of the future, cultivating the innovators both inside and outside and helping them to evolve their ideas.

Some of the literature stresses the need for public service organisations to become more adaptive and flexible in dealing with wicked problems:

In these complex circumstances, people and organisations have to become adaptive ... public services should be understood as complex adaptive systems and not according to the mechanistic models that have traditionally dominated government thinking. Paul Plsek likens this difference to that between throwing a stone and throwing a live bird. The trajectory of the stone can be calculated precisely using the laws of physics. The trajectory of the bird is far less predictable. The question is whether policy-makers can embrace this shift in perspective, and redefine their role as supporters of adaptive processes of change. They need to stop pretending they are throwing stones, and acknowledge that the management of public services is far more akin to throwing birds.¹¹

One way of increasing adaptability in the public sector is to blur the traditional distinction between policy development and programme implementation when dealing with complex programmes. Policy development and evolution needs to be informed with on-the-ground intelligence about operational issues and the views of service users or recipients, and be modified in the light of feedback about what works and what doesn't. Programme evaluations play an important role in this regard. In a recent UK study of 'Better Policy Delivery and Design' prepared by the Cabinet Office's Performance and Innovation Unit, it is argued that system design should be iterative:

Past experience shows that delivery is rarely a one-off task. It is best understood not as a linear process—leading from policy ideas through implementation to change on the ground—but rather as a more circular process involving continuous learning, adaptation and improvement, with policy changing in response to implementation as well as vice versa.¹²

Another way of increasing adaptability and flexibility is to focus on sharing the learnings and experiences from dealing with wicked problems within and among public sector organisations. Kay refers to the need to develop 'an ability to read across experiences from one area of public service to another'.¹³ Objective, well-researched and well-presented reviews of government activity in the area of complex policy problems, and the dissemination of that information across networks of relevant people, will be an important resource for the future. Of equal importance is that organisational culture supports the importance of sharing learning, and adapting policy and programmes in light of new learning. The objective is to encourage a new style of managing for learning organisations—a style that encourages initiative but recognises the need for learning. Action to deal with problems is required, but there needs to be recognition that change may be required in actions taken:

11 T. Bentley and J. Wilsdon 2003, 'Introduction: The Adaptive State', in T. Bentley and J. Wilsdon (eds), *The Adaptive State—Strategies for Personalising the Public Realm*, Demos, London, p. 26.

12 G. Mulgan and A. Lee 2001, *Better Policy Delivery and Design: A Discussion Paper* (UK Cabinet Office, Performance and Innovation Unit), p. 4 <<http://www.cabinetoffice.gov.uk/strategy/downloads/files/betterpolicy2.pdf>>

13 J. Kay, 'A New Public Sector', *Prospect*, No. 64, June 2001, p. 12.

The style is not so much of a traveller who knows the route, but more of an explorer who has a sense of direction but no clear route. Search and exploration, watching out for possibilities and inter-relationships, however unlikely they may seem, are part of the approach. There are ideas as to the way ahead, but some may prove abortive. What is required is a readiness to see and accept this, rather than to proceed regardless on a path which is found to be leading nowhere or in the wrong direction.¹⁴

This style displays a willingness to think and work in new and innovative ways, and requires flexible and creative thinking (e.g. using trials, prototypes or multiple iterations). A concomitant condition to increasing adaptability is a broad acceptance and understanding, including from governments and Ministers, that there are no quick fixes and that levels of uncertainty around the solutions to wicked problems need to be tolerated. Successfully addressing such problems takes time and resources and adopting innovative approaches may result in the occasional failure or need for policy change or adjustment. Policy makers also need the capacity to be able to adapt to inevitable swings and changes in the environment, including the public sector environment.

14 M. Clarke and J. Stewart, 'Handling the Wicked Issues—A Challenge for Government', p. 15.



6. The Importance of Working Across Organisational Boundaries

As mentioned above, it is their social complexity that is often the hardest part of tackling wicked problems and that overwhelms most current problem-solving and project management techniques. It is the need to work across APS agencies, the need to work with other jurisdictions and organisations, and the need to engage with many dispersed stakeholders that makes tackling wicked problems such a socially complex exercise. The challenges posed by the social complexity of wicked problems have been recognised by the Secretary of the Department of the Prime Minister and Cabinet:

In terrain which is politically contested, in which the resources to address difficult human issues are necessarily finite, there are rarely clear questions, let alone easy answers. Progress is nearly always marked by consultation, discussion, negotiation and iteration.¹⁵

It is clear that existing public sector institutions and structures were, by and large, not designed with a primary goal of supporting collaborative inter-organisational work. It can be challenging enough to implement governance arrangements and foster cultures that facilitate collaboration across *internal* organisational boundaries within hierarchical, vertically structured organisations.

6.1 WHOLE OF GOVERNMENT WORKING

The Management Advisory Committee (MAC) report, *Connecting Government* (2004), recognised that tackling complex policy challenges is one of the key imperatives that makes being successful at whole of government work increasingly important. The report focuses on working across organisational boundaries at the Australian Government level, but it also, albeit more briefly, looks at making connections outside the APS with community

¹⁵ P. Shergold, “‘Lackies, Careerists, Political Stooges’? Personal Reflections on the Current State of Public Service Leadership” (Sir Roland Wilson Lecture), *Australian Journal of Public Administration*, Vol. 63, No. 4, December 2004, p. 9.

organisations, businesses and other jurisdictions. The report notes that, although whole of government working is costly and time consuming, it can be particularly suitable for complex and longstanding policy issues—the essential characteristics of wicked problems.

The Secretary of the Department of the Prime Minister and Cabinet has commented that whole of government is the public administration of the future:

It offers links and connections to the global community of ideas, knowledge and understanding essential for the APS to face the governance challenges of the 21st century. It extols team-based approaches to solving the wicked problems that are endemic to public policy.¹⁶

It is worthwhile briefly reiterating the key messages from the MAC report on working across agency boundaries within the APS because they are so relevant to tackling wicked problems. The key messages include the importance of APS agencies developing:

- *supportive structures and processes.* There is a need for careful choice of the appropriate structures to support whole of government work. Structures and processes must be matched to the task—no ‘one-size-fits-all’. If there is deep contention between portfolios, or in the community, for example, and tight time frames are involved, a dedicated Taskforce under strong leadership and working directly to the Prime Minister, a senior Minister or a Cabinet committee may produce better outcomes than a more standard interdepartmental committee.
- *a supportive culture and skills base.* Portfolio secretaries and higher-ranking Senior Executive Service (SES) staff have a key role to play in influencing the behaviour and attitudes of the APS towards collaboration across organisational boundaries. They can model best practice collegiate behaviour and ensure there is practical support for those involved in whole of government activities. These practical supports include developing systems and procedures to support authorisation for appropriate local decision-making and learning opportunities for middle and senior managers in skills relevant to whole of government activities, such as communication and influencing skills and relationship management.
- *facilitative information management and infrastructure.* Working more successfully across organisations relies on better information-sharing and requires structured approaches to the collection and sharing of information and data. On a practical level this includes continuing the progress towards the adoption of common information policies, standards and protocols across APS agencies to improve interoperability, and identifying information management needs early in the planning process around wicked problems.
- *appropriate budget and accountability frameworks.* The Department of Finance and Administration should be consulted at an early stage in the development of major cross-

16 P. Shergold, ‘Preface’ to Management Advisory Committee 2004, *Connecting Government: Whole of Government Responses to Australia’s Priority Challenges*, Commonwealth of Australia, Canberra, p. vi.

portfolio initiatives to ensure that the flexibility that is possible in the existing financial framework is maximised and used to facilitate a cross-portfolio approach. In section 7 below the impact of the accountability framework on inter-organisational collaboration is discussed in more detail.

These messages are illustrated by a range of case studies included as an appendix to the MAC report. These case studies are useful reading for those tasked with tackling wicked problems. While they illustrate that whole of government approaches are usually essential in effectively dealing with wicked problems, they also illustrate that such arrangements can be complicated, expensive and difficult to make work—especially for a sustained period of time.

Since the release of the MAC report in April 2004, experience with the implementation of more effective whole of government approaches has been mixed. Whole of government approaches have been implemented to address a wide range of issues, from crisis management and improving service delivery, to dealing with significant policy challenges, many of which could be described as wicked, for example, addressing Indigenous well-being or welfare dependency. The APS is learning how to work in this environment, and there have been positive results.

At the same time, the implementation of whole of government approaches in these areas has also confirmed how difficult more connected approaches can be to implement. Data collected for the *State of the Service Report 2006–07* confirms a widespread perception among APS employees that barriers to effective whole of government working remain. These barriers are particularly at the systems level, in ensuring that underpinning financial and information and communications technology (ICT) frameworks support collaboration. More work also needs to be done in developing the appropriate agency culture and capability. Senior employees involved in structured whole of government activities continue to pass mixed judgements on how collaborative and well-supported these structures have been in practice.

The *State of the Service Report 2005–06* concluded that whole of government working is not yet natural to public servants and will take many years to embed. Nevertheless, there needs to be a continual focus on improving the ability of the APS to work in a whole of government way if real progress is to be made in tackling Australia's wicked problems.

6.2 WORKING WITH STATE GOVERNMENTS

Most wicked problems will overlap with the traditional jurisdictions of State governments. The MAC report concluded that for the most part, interactions with State governments will continue to be managed through formal processes and structures such as the Council of Australian Governments (COAG), various financial agreements and a large number of councils of Ministers. Other initiatives to facilitate collaboration within and across jurisdictions include the National Service Improvement Framework which provides a tiered approach for government agencies to follow in agreeing the arrangements necessary to enable collaborative service delivery (see <http://www.agimo.gov.au/services>). On a more informal basis, Australian Government employees need to ensure that they understand the State government policies and programmes most likely to interact with their own work to ensure an ongoing capacity to respond to emerging priorities that may cross jurisdictional boundaries. 'One approach to this is to establish ongoing forums and information exchanges [with State government employees] that foster not only understanding by employees of the issues inside their areas of control and influence but also the appreciation of wider issues and activities that may impact on those areas.'¹⁷

6.3 DEVOLVED GOVERNMENT

The need to work across organisational boundaries also encompasses the issue of working with organisations outside government. This is sometimes called devolved government (also distributed or networked government). As in many other developed countries, devolved government (the utilisation by the public sector of the community sector and/or the private sector for the delivery of public goods and services) has increased significantly in scope, scale and complexity over recent decades. While there is a range of drivers behind this increase, one factor is that a devolved approach to service delivery can assist in dealing with complex problems.

Addressing some wicked problems, such as the problems of various Indigenous communities or the causes of criminal activity in particular communities or natural resource management by landowners, needs to be tackled to some degree from a 'bottom-up' perspective (even if there is considerable 'top-down' coordinating control). Such bottom-up, community capability building needs to involve NGOs in distributing goods and services as both a matter of practicality (government can't have that sort of presence and expertise everywhere it's needed) and desirability (it can help if government is not seen to be the only entity tackling problems). NGOs, which have stronger community links than central government, can assist in achieving solutions that can be tailored to particular circumstances and/or communities and that can be owned by those involved, reflecting their beliefs and values. Governments do not usually have the reach or power to direct behaviours that might conflict with local beliefs, values and private interests, even if they are sure of the right policy answer to the problem. It is unlikely that government from the centre can specify how best to provide a complex service at the local level if there is to be scope to boost service satisfaction, improve outcomes and secure local legitimacy.

¹⁷ Management Advisory Committee 2004, *Connecting Government: Whole of Government Responses to Australia's Priority Challenges*, Commonwealth of Australia, Canberra, p. 104.

Improving the public sector's capacity to work in a distributed way can help to enhance an understanding of causes and solutions to a particular wicked problem among the organisations delivering services, even if views on the relative importance of the various causes and/or solutions continue to differ.

6.4 WORKING ACROSS ORGANISATIONAL BOUNDARIES: OTHER ISSUES

One necessary first step in building up inter-organisational working on any specific issue is the identification of the organisations which could be concerned with the issues—an exercise in inter-organisational mapping. Part of the holistic approach required to tackle wicked problems is to think inclusively. A concern with child obesity, for example, could concentrate on those whose contribution is most obvious, that is, federal and state government health and education agencies. But other government organisations dealing with areas such as social services, housing, town planning, transport, sport and recreation facilities will also have a role to play (as will a range of community and commercial organisations).

Other literature around working in a whole of government way stresses the key importance of creating a shared understanding of the wicked problem among the range of organisations that can contribute to a full understanding and comprehensive response to the issue. This needs to be commenced in the pre-project planning stage to avoid the danger of dealing with a wicked problem too narrowly. It requires first ensuring that the relevant organisations understand the government's broad policy objectives in relation to the wicked problem in order to encourage big picture, inclusive thinking. It also requires a degree of organisational understanding so that how the issue is dealt with in each organisation's structure and how it is talked about (the terminology used) are understood. The difficulties of working across organisational boundaries are compounded by the different values, incentives and accountabilities of organisations from the government, commercial and non-profit sectors. Once a shared understanding is achieved organisations can work together to explore, map, frame and re-frame the wicked problem and try to find appropriate measures to take.

New technologies when used strategically can be an important tool to assist in working across organisational boundaries. Govdex, for example, is an Australian Government initiative to facilitate business process collaboration across portfolios, administrative jurisdictions and agencies (see <http://www.agimo.gov.au/services>). It comprises a collaborative workspace, a registry and/or repository and tools and methods. Govdex is now being used by several hundred people at the federal, state and local government levels in Australia and to facilitate collaboration between elements of the Australian, UK and New Zealand Governments. Poorly handled, however, technology can exacerbate wicked problems, for example, when it results in a proliferation of uncoordinated government websites.

Delivering Natural Resource Management Programmes

The delivery of Australia's federal and State government natural resource management programmes is a good example of working across organisational boundaries to tackle a wicked problem. Natural resource management in Australia displays many of the characteristics of a wicked problem, including disagreement among stakeholders and experts on the nature, scope and solutions to natural resource management issues, the need for coordination among all levels of government, the lack of a one-size-fits-all approach—natural resource management issues vary dramatically between regions and localities—and the need to achieve behavioural change amongst a range of land users.

The inter-organisational structure delivering key natural resource management programmes has evolved into a regional delivery model. Under this approach, 56 regional authorities, funded under bilateral agreements between the Australian Government and each State government, have been set up around Australia to determine and manage regional natural resource management priorities, investment strategies, and funding opportunities, under a range of natural resource management programmes. Although there have been teething problems as the new organisational structures have been bedded down, there is widespread support for the regional approach from members of all sections of the community, industry and government, as a mechanism for working across organisational boundaries to address natural resource management issues.¹⁸ The top-down strategic approach of the regional authorities still has scope to accommodate a community driven bottom-up approach to identifying local natural resource management problems at the local level where these local priorities are consistent with the strategic overview. This has proven to be the case in practice in the more well-established and highly performing regional authorities.

18 K. Keogh, D. Chant and B. Frazer 2006, *Review of Arrangements for Regional Delivery of Natural Resource Management Programmes: Final Report* (Prepared by the Ministerial Reference Group for Future Natural Resource Management Programme Delivery) <<http://www.nrm.gov.au/publications/books/pubs/regional-delivery-review.pdf>>



7. Reviewing the Accountability Framework

There is some inevitable tension between the horizontal responsibilities in working across organisational boundaries and the vertical accountabilities embedded in the Westminster system of Cabinet Government, in which the existence of separate portfolio agencies reflects an underlying accountability of individual Ministers to Parliament. Some of the literature argues that the devolution of authority to agency heads and a clearer vertical accountability for agency outcomes may have exacerbated such tensions. The MAC report, *Connecting Government* argued, however, that the flexibility fostered by devolution can facilitate a more innovative approach to wicked problems. ‘The challenge is to find the infrastructure, processes and practices that might promote better connections and remove any obstacles to collaboration that devolution may have raised. These include relevant skills and culture, an information-sharing infrastructure and governance arrangements that focus accountability on the whole of government outcomes the government is seeking.’¹⁹

It is relevant, however, to pose a range of questions about the compatibility of the existing accountability framework and the capacity of APS agencies to effectively tackle wicked problems. Is the requirement to tightly specify programme outputs and outcomes useful in an environment where even defining the problem and solution is difficult? Does the accountability framework within which APS agencies operate have enough flexibility for programmes that are aimed at outcomes that may not be evident for years (for example, experience and research from the COAG trial evaluations confirm that whole of government and partnership approaches aimed at changing the economic, health and social circumstances of disadvantaged communities, in particular Indigenous communities, require long-term commitments of 10 to 20 years in order to be realised)?²⁰ Does the current

¹⁹ Management Advisory Committee, *Connecting Government*, p. 6.

²⁰ Morgan Disney & Associates 2006, *Synopsis Review of the COAG Trial Evaluations: Report to the Office of Indigenous Policy Coordination (OIPC)*, p. 4.

accountability framework pose a barrier to APS agencies becoming more innovative, flexible and adaptable in their policy formulation and programme implementation when tackling wicked problems?

There is no doubt that the use of outcomes and/or performance-based budgeting and reporting has been an important driver of public sector reform and improved efficiency. The requirements are designed to enable a continuum of specificity from shared outcomes to more tightly specified outputs. However, there appears to be a need for a more sophisticated understanding of how to apply this flexibility.

There is increasing evidence that some types of pre-set performance measures, especially lower-level indicators, may undermine the responsiveness of the delivery of complex services and could even distort or constrict the services being delivered by making the indicator (or target) rather than the service the focus of provision.²¹ In the case of devolved services both service providers and service users can find themselves playing second fiddle to programme reporting regimes.²² Programme definitions can also restrict providers' capacity to exploit significant intersections with other services (for example, the role and operations of family relationship centres, the courts and child support services).

There is a range of coordinating mechanisms, within the current accountability framework, that have a focus, inter alia, on whole of government projects. These include the Cabinet Implementation Unit and the Department of Finance and Administration's Gateway Review process. The new Strategic Review process, which was introduced in 2006–07, will also provide scope to review programmes and policies that affect more than one agency. Strategic Reviews are designed to provide information to assist the Government to set its priorities in the Budget process. Reviews will focus on areas where outlays are significant or growing strongly; where fiscal risk is high; where there might be overlap and integration issues across agencies; or where activity has not been subject to recent substantial review. Strategic Reviews will be coordinated by Finance, but will involve full consultation with affected agencies. Reviews may be undertaken by central agencies, eminent persons, or other government bodies. Reviews will be guided by Terms of Reference, with the aim of considering the appropriateness (whether the activity is consistent with the Government's policy objectives), effectiveness (how well the activity delivers on its objectives) and efficiency (what is the economic and fiscal cost of delivering the activity) of Government programmes.²³ Care will also need to be taken to ensure that strategic reviews consider appropriate time frames because, as discussed above, the most complex policy issues usually need longer time frames for results to become apparent.

21 See G. Kelly, G. Mulgan and S. Muers [200?], 'Creating Public Value: An Analytical Framework for Public Service Reform', UK Cabinet Office, Strategy Unit, p. 9 <http://www.cabinetoffice.gov.uk/strategy/downloads/files/public_value2.pdf>

22 See, for example, J. Teicher, Q. Alam and B. Van Gramberg, 'Managing Trust and Relationships in PPPs: Some Australian Experiences', *International Review of Administrative Sciences*, Vol. 72, No. 1, March 2006, p. 90, where a number of reviews by Australian Government agencies are cited; M. Horn *et al* 2004, *A New Approach to Assisting Young Homeless Job Seekers*, Hanover Welfare Services, South Melbourne <<http://www.hanover.org.au>>; L. Kerr, E. Carson and J. Goddard, 'Contractualism, Employment Services and Mature-Age Job Seekers: The Tyranny of Tangible Outcomes', *The Drawing Board: An Australian Review of Public Affairs*, Vol. 3, No. 2, November 2002, p. 89.

23 The scope and type of review and approach to responding to reviews will be agreed by Senior Ministers on recommendations made by the Budget Co-ordination Committee (comprised of Deputy Secretaries of the Departments of the Prime Minister and Cabinet, the Treasury and Finance).

Wicked problems also pose challenges for traditional approaches to accountability and governance within agencies. Ideally, governance structures would encourage collaboration and assist in generating an awareness of and a focus on the complex issues that cut across internal organisational structures. The Australian Public Service Commission's publication, *Building Better Governance*,²⁴ provides practical guidance on the building blocks for effective governance and includes some useful case studies. These case studies, in particular, highlight the potential benefits of a stronger focus on a principles-based approach rather than governance by specific rules. This approach is consistent with a more flexible approach to wicked problems as it can increase senior management's ability to apply a broader, future-oriented strategic approach, including a focus on whole of government issues.

It is beyond the scope of this paper to make a detailed assessment of the compatibility of the Australian Government accountability framework with agencies' ability to tackle wicked problems. However, it does appear that there is a need to consider further how the current accountability framework can meet the goal of maintaining acceptable levels of accountability while minimising as much as possible any barriers to innovation and collaboration.

24 Australian Public Service Commission 2007, *Building Better Governance* <<http://www.apsc.gov.au>>



8. Effectively Engaging Stakeholders and Citizens

A key conclusion of much of the literature about wicked policy problems is that effectively engaging the full range of stakeholders in the search for solutions is crucial. Engagement is most important when the active participation and cooperation of citizens is required as part of the solution. ‘To be successful in addressing whole of government issues, especially where the challenges are complex and longstanding, requires the substantial involvement of the people and communities affected.’²⁵ Because wicked problems are often imperfectly understood it is important that they are widely discussed by all relevant stakeholders in order to ensure a full understanding of their complexity. If a resolution of a wicked issue requires changes in the way people behave, these changes cannot readily be imposed on people. Behaviours are more conducive to change if issues are widely understood, discussed and owned by the people whose behaviour is being targeted for change.

With the social complexity that accompanies nearly all wicked problems, a lack of understanding of the problem can result in different stakeholders being certain that their version of the problem is correct. It can be extremely difficult to make any headway on an acceptable solution to the wicked problem if stakeholders cannot agree on what the problem is. Achieving a shared understanding of the dimensions of the problem and different perspectives among external stakeholders who can contribute to a full understanding and comprehensive response to the issue is crucial because:

... the Holy Grail of effective collaboration—is in *creating shared understanding about the problem, and shared commitment to the possible solutions*. Shared understanding does not mean we necessarily *agree* on the problem ... Shared understanding means that the stakeholders understand each other’s positions well enough to have intelligent dialogue about the different interpretations of the

25 Management Advisory Committee, *Connecting Government*, p. 95.

problem, and to exercise collective intelligence about how to solve it. Because of social complexity, solving a wicked problem is *fundamentally a social process*. Having a few brilliant people or the latest project management technology is no longer sufficient.²⁶

The big question is how to achieve this shared understanding. A starting point is stakeholder and citizen engagement. The OECD identifies three levels of government-citizen relations in this context:²⁷

- *information*. Government disseminates information on policy making or programme design. Information flows from the government to citizens in a one-way relationship. Examples are numerous and include a substantial proportion of the information on agencies' websites.
- *consultation*. Government asks for and receives feedback from citizens on policy-making and programme design. In order to receive feedback, government defines whose views are sought and on what issues. Receiving citizens' feedback also requires government to provide information to citizens beforehand. Consultation thus creates a limited two-way relationship between government and citizens. Examples are comments on draft legislation, submissions to parliamentary committee enquiries, and public opinion surveys.
- *active participation or citizen engagement*. This occurs where citizens actively engage in policy and decision-making processes. Citizens may propose policy options and engage in debate on the relative merits of various options, although the final responsibility for policy formulation and regulation rests with the government. Engaging citizens in policy making and programme design is an advanced two-way relationship between government and citizens based on the principle of partnership. Examples include open working groups, lay peoples' panels and dialogue processes.

It is the last and highest level of government-citizen relations that the bulk of the literature argues is necessary for the effective resolution of wicked problems where achieving sustained behavioural change is part of the solution. The OECD acknowledges that in practice a clear distinction between consultation and citizen engagement may be difficult to draw. Both require full and timely access to relevant, user-friendly information on the issues under discussion and the processes to be used. 'As a general rule, however, the timetable, format and issues for consultation are defined by government while in active participation the same factors are themselves the subject of discussion and joint decision.'²⁸ The OECD also endorses some basic principles (set out by Canada's Institute on Governance in 1998) upon which active participation (or citizen engagement) is based. These include: 'shared agenda-setting for all participants, a relaxed time-frame for deliberation, an emphasis on value-sharing rather than debate, and consultative practices based on inclusiveness, courtesy and respect'.²⁹

26 J. Conklin, *Dialogue Mapping*, p. 29.

27 OECD 2001, *Citizens as Partners: Information, Consultation and Public Participation in Policy-Making*, OECD, Paris, pp. 23, 24, 28.

28 OECD, *Citizens as Partners*, p. 41.

29 Institute on Governance 1998, *A Voice for All: Engaging Canadians for Change* (Report (including Summary of Findings) of the Conference on Citizen Engagement, Ottawa, 27–28 October), p. 25 <<http://www.iog.ca/publications/ccreport.pdf>>

Stakeholder and citizen engagement can take many forms and it is beyond the scope of this paper to discuss these in detail. An example of using information and communications technology to facilitate citizen engagement are the principles for ICT-enabled citizen engagement developed in collaboration with the e-Democracy Community of Practice (see <http://www.agimo.gov.au>). However, it is worth noting that although there are strong arguments for engaging citizens as part of the process of tackling wicked problems, there are also some reservations. Engagement requires, for example, considerable resources and time frames. In many circumstances it will be worth the investment because of the payoffs—better informed public policy, greater trust in government, more shared understanding and greater commitment by citizens to actively cooperate in tackling the wicked problem. However, in some circumstances such active citizen engagement may not be possible for a variety of reasons. In particular, constraints such as time, criticality, security and funding availability need to be balanced against the benefits of stakeholder engagement. The challenge for the APS is to identify those problems where more extensive engagement is likely to add value and where benefits outweigh the costs. Regardless of such analysis, however, it may be the case that Ministers' perceptions of the political climate will prevent a comprehensive engagement process. It must be remembered that the engagement by the APS of citizens and other external stakeholders requires some level of ministerial authorisation.



9. The Importance of Achieving Sustained Behavioural Change

Successfully addressing most wicked problems requires achieving sustained changes in behaviour. However, for many wicked policy problems influencing human behaviour is very complex. For these problems, the effectiveness of traditional approaches to influencing behaviour (e.g. legislation, sanctions, regulations, taxes and subsidies) may be limited, without some additional tools and understanding of how to engage citizens in cooperative behavioural change.

Achieving sustained behavioural change is usually a key component of tackling wicked problems because it has become increasingly clear that government cannot simply ‘deliver’ key policy outcomes to a disengaged and passive public. In the areas of welfare, health, crime, employment, education and the environment it is clear that achieving significant progress requires the active involvement and cooperation of citizens. Agencies may have more impact on key policy outcomes by using their limited resources to engage, involve and change the behaviour of users and other parties, than by concentrating on traditional policy tools and service delivery.

It is not just in Australia that there has been a growing policy interest in engaging citizens to achieve sustained behavioural change to assist in tackling wicked problems. The UK Government, for example, has recently convened a Behaviour Change Forum which is led by the Cabinet Office, the Department for Environment, Food and Rural Affairs, the Department of Health, the Department for Transport, the Treasury, the Home Office, the Prime Minister’s Strategy Unit and the Sustainable Development Commission. Its purpose is to:

- exchange experience of behavioural change policies and their implementation
- pool research and policy evaluation on behavioural change
- disseminate research findings and good practice across government

- advise on and promote common policy tools and support for those engaged in behaviour-focused policies.

The Canadian Government has also been actively interested in the area of behavioural change and has produced a set of guidelines known as the 'Tools of Change' for altering public behaviour around wicked problems in the environmental and health areas. These guidelines can be found at <<http://www.toolsofchange.com>>.

In order to achieve behavioural change to assist in tackling a wicked problem a basic understanding is required of key determinants of behaviour. How people behave is determined by many factors and is deeply embedded in social situations, institutional contexts and cultural norms. Nearly all public policy rests on assumptions about human behaviour; however, these are rarely made explicit or tested against the available evidence. The Australian Public Service Commission has recently published a discussion paper, *Changing Behaviour: A Public Policy Perspective*,³⁰ that outlines the key theories and empirical evidence about behavioural change and draws out the implications for improving policy making and programme implementation in the APS.

30 Australian Public Service Commission 2007, *Changing Behaviour: A Public Policy Perspective* <<http://www.apsc.gov.au>>



10. Skills for APS Employees

Tackling wicked problems raises a range of skills and capability issues for the APS. The need to deal with the social complexity associated with wicked problems (working across organisational boundaries, engaging stakeholders and influencing citizens' behaviour) requires additional skills over and above the more traditional analytical, conceptual, and project management skills required by public servants involved in policy making and planning policy implementation. In 2004, the Management Advisory Committee in its *Connecting Government* report focused on network management and stakeholder management and the capacity to 'facilitate cooperation and partnerships, build commitment to a shared agenda, manage and share information, manage change, engage stakeholders, and resolve conflict.'³¹ People with connecting skills will be increasingly valued—people who can build up relationships across the public, private and non-profit sectors and leverage these relationships to build networks of mutual benefit. There is also a need for policy makers to be aware of and apply behavioural change theory.

Critically, tackling wicked problems also calls for high levels of systems thinking. This big picture thinking helps policy makers to make the connections between the multiple causes and interdependencies of wicked problems that are necessary in order to avoid a narrow approach and the artificial taming of wicked problems. Agencies need to look for ways of developing or obtaining this range of skills, including through recruitment, contracted labour, outsourcing particular analysis, formal learning programmes and encouraging employees to undertake a relevant range of work to broaden their experience. A multi-disciplinary team approach is one practical way to garner all the required skills and knowledge for tackling any particular wicked problem.

31 Management Advisory Committee, *Connecting Government*, p. 53.



11. Conclusions

Many of the most pressing policy challenges for the APS involve tackling wicked problems. Wicked problems are characterised by social complexity—they cross the boundaries of APS agencies, they cross jurisdictional boundaries, stakeholders (and experts) often disagree about the exact nature and causes of the problems and, not surprisingly, they disagree about the best way to tackle them. A key part of the solution to many wicked problems involves achieving sustained behavioural change. It has become increasingly clear that a disengaged and passive public can be a key barrier, and is a factor in the policy failures around some of Australia's longstanding wicked problems. In the areas of welfare, health, crime, employment, education and the environment, significant progress requires the active involvement and cooperation of citizens.

Tackling wicked problems is an evolving art but one which seems to at least require:

- *holistic, not partial or linear thinking.* This is thinking capable of grasping the big picture, including the interrelationships between the full range of causal factors underlying the wicked problem. Traditional linear approaches to policy formulation are an inadequate way to work with wicked policy problems as linear thinking is inadequate in encompassing their complexity, interconnections and uncertainty. There is an ever present danger in handling wicked issues that they are handled too narrowly. The shortcomings of traditional approaches to policy making are also due to the social complexity of wicked problems—the fact that a true understanding of the problem generally requires the perspective of multiple organisations and stakeholders and that any package of measures identified as a possible solution usually requires the involvement, commitment and coordination of multiple organisations and stakeholders to be delivered effectively.
- *innovative and flexible approaches.* It has been argued that the public sector needs more systematic approaches to social innovation and needs to become more adaptive and flexible in dealing with wicked problems. Ways that have been suggested to achieve these ends include investing resources in innovation similar to private sector research and

development (R&D), blurring the traditional distinction between policy development and programme implementation as one way of making it easier to modify policies in the light of experience about what works and what doesn't, and focusing on creating learning organisations.

- *the ability to work across agency boundaries.* Wicked problems go beyond the capacity of any one organisation to understand and respond to, and tackling them is one of the key imperatives that makes being successful at working across agency boundaries increasingly important. This includes working in a devolved way with the community and commercial sectors.
- *increasing understanding and stimulating a debate on the application of the accountability framework.* It is important that pre-set notions of the accountability framework do not constrain resolution of wicked problems. The accountability framework needs to be applied in a way that can meet the goal of maintaining acceptable levels of accountability while minimising as much as possible any barriers to innovation and collaboration. Internal governance arrangements also need to support this goal.
- *effectively engaging stakeholders and citizens in understanding the problem and in identifying possible solutions.* Because wicked problems are often imperfectly understood it is important that they are widely discussed by all relevant stakeholders in order to ensure a full understanding of their complexity and interconnections. If a resolution of a wicked issue requires changes in the way people behave, these changes cannot readily be imposed on people. Behaviours are more conducive to change if issues are widely understood, discussed and owned by the people whose behaviour is being targeted for change.
- *additional core skills.* The need to work across organisational boundaries and engage with stakeholders highlights some of the core skills required by policy and programme managers tackling wicked problems—communication, big picture thinking and influencing skills and the ability to work cooperatively. Traditionally, more weight has been placed on high-level analytical, conceptual and writing skills and traditional project management skills. While these skills are still fundamental parts of the policy toolkit, they are not sufficient. A multi-disciplinary team approach is a practical way to garner all the required skills and knowledge for tackling wicked problems.
- *a better understanding of behavioural change by policy makers.* This needs to be core policy knowledge because behavioural change is at the heart of many wicked problems and influencing human behaviour can be very complex. The traditional policy tools such as legislation, punishments and regulations, taxes and subsidies will generally form a core part of the overall strategy to achieve widespread, sustainable behavioural change. However, their effectiveness can be limited without some additional tools and understanding of how better to engage citizens in cooperative behavioural change.
- *a comprehensive focus and/or strategy.* Successfully addressing wicked policy problems usually involves a range of coordinated and interrelated responses given their multi-causal nature and that they generally require sustained effort and/or resources to make headway.
- *tolerating uncertainty and accepting the need for a long-term focus.* Successfully tackling wicked problems requires a broad acceptance and understanding, including from governments and Ministers, that there are no quick fixes and that levels of uncertainty around the solutions to wicked problems need to be tolerated. Successfully addressing such problems takes time and resources and adopting innovative approaches may result in the occasional failure or need for policy change or adjustment.



12. Possible Next Steps

Some practical ways in which APS agencies can assist their employees to more effectively tackle wicked problems are set out below.

At the whole of government level:

- continue with the current focus and activities aimed at improving whole of government working, working across other organisational boundaries and engaging with citizens and stakeholders, with a particular focus on moving beyond the rhetoric of support for whole of government to embedding whole of government approaches as a fundamental part of APS operations.
- incorporate training and case studies on tackling wicked problems into the Australian Public Service Commission's programmes that focus on the skills needed to deal with social complexity, in order to achieve high levels of systems thinking and a basic understanding of behavioural change.
- increase the understanding of and stimulate debate about options available under the Australian Government accountability framework for agencies to tackle wicked problems and whether there are any barriers that need to be addressed.

At the agency level:

- focus on obtaining the full range of skills necessary to tackle wicked problems, including by recruitment, contracted labour, outsourcing particular analysis, formal learning programmes and encouraging employees to undertake a relevant range of work designed to broaden their experience. This is a particular challenge in the current tight labour market.
- encourage a new style of managing for learning organisations—a style that encourages initiative but recognises the need for learning. It is characterised by a willingness to think

and work in new and innovative ways and requires flexible and creative thinking (e.g. using trials, prototypes or multiple iterations).

- continue to work on fostering a culture that encourages collaboration and engagement, including developing a shared understanding of contentious issues among relevant stakeholders and organisations.
- develop a stronger focus on a more flexible, principles-based approach to internal governance procedures rather than governance by specific rules. This approach is consistent with a more flexible approach to wicked problems as it can increase senior management's ability to apply a broader, future-oriented strategic approach, including to whole of government issues.

