Using Systems Thinking to Create more Impactful Social Policy.

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Abstract

This article proposes that "systems thinking" offers a way of (a) diagnosing the potential effectiveness of social policy and (b) of creating more impactful social policy. In particular, Donella Meadows' "twelve places to intervene" (Meadows 1999) have been used as the basis of creating a tool to this end. Meadows' 12 places can be broadly grouped into three categories: (1) physical features, (2) information and controls and (3) ideas. Using these three categories, this article analyses a number of examples of social policy related to Indigenous disadvantage in Australia. The actions and goals of different policies are analysed via this tool, with a view to illuminating what could be expected by way of impact from these policy initiatives. The overall aim is to understand if systems thinking in particular, and foresight approaches in general, can be useful in contributing to more impactful, or at least more honest, social policy in the face of ever growing complexity.

Keywords: Systems thinking, social policy, meadows, indigenous, wicked problems, places to intervene, leverage points

The Paradox of Social Policy

At its most simplistic, policy creation is a problem solving endeavour. Dye (1976) offered a timeless definition via the title of his book 'Policy analysis: what governments[1] do, why they do it, and what difference it makes'.

Evidence based policy currently claims a high profile and status in the development of contemporary Australian social policy. It seems to be a self-evident truth that social policy should be based on evidence and not ideology, intuition or conventional wisdom (Banks, 2009, p.3). Yet 'evidence .... never speaks for itself' (Pawson, 2002, p.340) and it always sits within a social construction as do the social problems it addresses. Over-reliance on evidence based policy is risky because:

- Evidence is based on the past and policy is future focused (Stilgoe, 2006, p.23) and the problems of the future are different to those of the past.

- Evidence always sits in a context of its production and contemporary knowledge consumption practices and this is becoming increasingly contested for many reasons. These reasons include the access to evidence

by the media and general public, and also the scrutiny the government experiences in the digital age (Pawson, 2002, p.340).

• The nature of wicked problems means there is a lack of authority of evidence and experts for wicked problems. For some problems, there is no evidence of 'what works' to inform policy.

(Australian Public Service Commission, 2007, p.27)

One criticism of contemporary policy development is that structures for government policy creation are too lineal for the modern complexity of issues requiring policy responses (Ahmed, 2010, p.2; Leigh, 2003, p.5). Policy, by definition, produces a static end-product, despite the dynamic and often volatile context in which they are needed and shaped (Ferris, 2010, p.2).

Many contemporary social policy domains are in fact "wicked" problems (Rittel and Webber, 1973, p.160; Conklin, 2006, pp.2-3; Weber and Khademian, 2008; Australian Public Service Commission, 2007). A wicked problem is one that is highly resistant to resolutions, and that challenge governance structures and organisational capacity. However, evidence based approaches seem to be incompatible with the messy nature of wicked problems; a contention that the Australian government verifies (Australian Public Service Commission, 2007, p.11) but cannot seem to alter, despite its efforts to do so. Wicked problems present a paradoxical situation: the problem must be defined in order for experts to be identified and wicked problems resist this apparently simple starting point, as experts are required to define them.

Regardless of its limitations, evidence based policy continues to be heavily promoted by government (and other bodies) as if it is a talisman to criticism and error. However, the Australian government's simultaneous dependence on evidence based policy paradoxically results in their becoming more risk averse internally, through their systems, cultures and behaviours, and through their products: government policies and services (Schultz, 2006, p.5). Government is a type of wicked problem itself, both reflecting and constituting the problems they face, with responsibility to remedy or address them in the present and for the future.

Foresight and Systems Thinking

Governments need new approaches which offer a level of comfort and direction in the face of the uncertainty of the many inter-related wicked problems they are tasked to address. If evidence based policy is not the talisman it is advertised to be, any alternative approach must be just as rigorous and systematic enough to be credible to gain traction and influence change. It is proposed that foresight in general, and systems thinking in particular, meet these criteria.

Donella Meadows is one of the most illustrious alumni of systems thinkers, and while her name is intimately linked with "Limits to Growth" (Meadows, Randers and Meadows, 2004), some of her most profound and developmental work is grounded in the ideas that increase understanding about systems at a conceptual level. As part of this work, Meadows identified twelve *places to intervene* in a system or "leverage points".

Leverage points are instances where change is possible, where "a small shift

in one thing can produce a big change in everything" (Meadows, 1999, p.1). The concept of leverage points is a familiar one; it is embedded in our discourse, imaginations and "tipping points", "magic cures" and "silver bullets" all allude to leverage points (Meadows, 1999, p.1). Each of Meadows' *places to intervene* identifies points of power—but they are not all equal. Different leverage points have different abilities to influence change and the twelve points of intervention which Meadows developed represents a hierarchy of change from least impactful to strongest impact. Table 1 describes this hierarchy.

Table 1. *Meadows' Twelve Places to Intervene in a System (Meadows, 2008, p.3)*

Influence (least to greatest)	Meadows' Leverage Points	Descriptor
12	Numbers	Key performance indicators, subsidies, taxes, standards, inputs and outputs.
11	Buffers	The sizes of stabilising stocks relative to their flow. While buffers have potential for huge influence, they are low down on the list of influence because they are usually represented as physical entities (and therefore they themselves find it difficult to change).
10	Structures (of stocks & flows)	Physical systems and their points of intersection. For example, a bottleneck may be easier to fix than the causes of the bottleneck.
9	Delays	The amount of time passed, relative to the rate of change in the system. Delays have great influence, but are not 'higher' in the hierarchy because they often 'take as long as they take' and are (also) hard to change.
8	Balancing (negative) feedback loops	These are (self-correcting) feedback mechanisms intended to keep the system within safe parameters. For example, thermostats are balancing feedback loops whether they measure temperature in our bodies or our houses.
7	Reinforcing (positive) feedback loops	A reinforcing feedback loop becomes more powerful the more it works. For example, an increase in the birth rate means there are more people to have babies. A system with an unchecked reinforcing loop will ultimately collapse—as in the case of erosion and extinction. Meadows argues that reducing the power of the reinforcing loop (slowing the growth) is more effective than speeding up a negative loop.
6	Information flows	Who does and does not have access to information is a huge influencer and missing information is a common cause of system malfunction. It is cheaper and easier to change information flows than it is to change structure.
5	Rules of the system	These are the incentives, punishments and constraints of a system. They define its scope, boundaries and degree of freedom. Constitutions are examples of social rules. Physical laws are absolute rules.
4	Self-organisation	The power to add, change or evolve system structure is the strongest form of resilience and is of course evolution. This is often an unpopular leverage point as variability and experimentation are frequently accompanied by those in power losing control.

3	Goals	Goals are the purpose of the system and are stronger than leverage points 12 to 4, as goals encourage control, order and shared vision. Goals bring about change in all other elements: parameters, feedback loops, information and self-organisation.
2	Paradigms	This is the mind-set out of which the system arises. These are the sources of systems. While paradigms are hard to change, there is nothing physical, expensive or (necessarily) slow when they do change.
1	Transcending paradigms	Transcending paradigms is about the realisation that no paradigm is 'true'. It goes beyond challenging fundamental assumptions into the realm of changing the values and priorities that led to the assumptions, and being able to choose among value sets at will.

In addition to listing these twelve *places to intervene* (or leverage points) in a hierarchy, Meadows also conceptualises them as distinct groups. These are (Meadows, 1999, p.9, pp.16-18):

- physical elements: indicators, buffers, structures, delays
  (Leverage points 9-12)
- information and controls: balancing/reinforcing loops, information exchange, rules
  (Leverage points 4-8)
- ideas behind the system: goals, paradigms, ability to transcend such paradigm
  (Leverage points 1-3).

Table 2 represents the 12 *places to intervene* according to the three categories described above.

Although Meadows rarely returns to these groupings in her work, these three categories are what is utilised here to form the basis of a tool. Within the context of reducing over-reliance on evidence based policy, systems thinking offers a disciplined methodology with a strong pedigree.

Table 2. *Meadows 12 places to intervene categorised*

Influence (least to greatest)	Meadows' Leverage Points	Category
12	Numbers	**Physical leverage points**
11	Buffers	
10	Structures (of stocks and flows)	
9	Delays	**(Weakest leverage)**
8	Balancing (negative) feedback loops	**Information and controls as leverage**
7	Reinforcing (positive) feedback loops	
6	Information flows	
5	Rules of the system	**(Medium leverage)**
4	Self-organisation	
3	Goals	**Ideas as leverage**
2	Paradigms	
1	Transcending paradigms	**(Strongest leverage)**

Applying Systems Thinking To Indigenous Disadvantage in Australia

It is taken as given that the area of Indigenous disadvantage is a severely wicked problem for Australia, and one which is heavily populated by a plethora of government and non-government activity. The volume and complexity of the activity—as well as the challenges of establishing baseline information—can make it difficult to navigate let alone assess the impact of these activities. These activities, fairly consistently, take the form of social policy. The assessment of the impact of the activities is usually via the evaluations, reports and legislative changes which are accompanied by policies.

It is in light of this complexity, Meadows' *places to intervene* have been used to explore the potential impact of a sample of social policies. To do this Meadows' twelve *places to intervene* will be referred to by the three groupings:

Weakest leverage	Physical attributes	Leverage Points 9-12
Medium leverage	Information and Controls	Leverage Points 4-8
Strongest leverage	Ideas	Leverage points 1-3

(Meadows, 2008)

A limited number of documents have been selected that are examples of pivotal social policy—or influential inputs into social policy—and that relates to efforts to reduce Indigenous disadvantage in different ways. These documents all include recommendations or action plans, which will be the focus of the analysis. Each of the policy recommendations in these documents have been coded according to Meadows':
- Weakest leverage (physical attributes)
- Medium leverage (information and controls).

The documents chosen are:
- 'Little Children are Sacred' report (Wild, 2007)
- 'Northern Territory Emergency Response' (FAHCSIA, 2009)
- Report from the Coordinator General for Remote Indigenous Services (Australian Government, 2011)
- Cape York Partnerships Welfare Reform Initiative (Cape York Partnerships, 2008)

It is important to note that these documents will be analysed (at least initially) for their **intended** activities, as opposed to a retrospective analysis of their **actual** activity. The first example, "Little Children are Sacred", will be analysed in greatest detail in order to provide an example of how the "weak" and "medium" categories have been applied across all documents.

The final Meadows category, the "ideas" behind these documents and the strongest leverage points, will be discussed later.

Example 1: Little Children are Sacred report

This is a report by independent reviewers, Rex Wild and Pat Anderson, who led a board of inquiry funded by the Australian and Northern Territory (NT) governments in 2006. This board was convened by the NT government to research

and report on levels of sexual abuse of children in aboriginal communities (Wild, 2007, p.4).

The report included 97 recommendations and was 320 pages long. The full report was subsequently summarised into a more manageable shorter document, which reduced the 97 recommendations into six key areas (NT Government, 2007):

• Education
• Alcohol
• Commissioner for Children and Young People
• Family and Community Services (FACS) and the Police
• Family Support Services
• Empowerment of Aboriginal communities.

This report has been chosen as it draws a line in the sand of Australian Indigenous social policy, in that it provoked the Australian Government into taking radical and controversial legislative actions under the *Northern Territory Emergency Response* (Yu, 2008, p.62).

Education		
What the report says	**Systems discussion**	**Systems "category"**
Education the key to helping children and communities foster safe, well adjusted families.	The area of education in general is a leverage point with long delays. Delays are difficult to change and as such are in the lowest group of leverage influence (Leverage point #9).	Weak
	Improving local language development creates a reinforcing/ positive loop. The more local language is used, the more valuable it becomes (Leverage point #7).	Medium
	Making education more "effective" is clearly explained in the full report (Wild 2007, p27-28). This explanation includes ensuring access to pre-school and school for aboriginal children and lower class sizes. These activities, by and large, fall under the physical category as they relate to buffers and stocks and numbers and strongly link to how many schools, pre-schools and teachers exist (Leverage points #12 and 11).	Weak

Alcohol		
What the report says	**Systems discussion**	**Systems "category"**
Alcohol remains the gravest and fastest growing threat to the safety of Aboriginal children. The report recommended urgent action be taken to reduce alcohol consumption in Aboriginal communities.	"Urgent" action in this area implies only short delays exist between the intention and the action. However, alcohol consumption is associated with physical health, alcoholism, family violence, acquired brain injuries and—most specifically in this context—sexual abuse of children. All of these issues are linked to behaviour and health changes and are accompanied by significant delays between the intention and the action. Therefore, while the actions may be fast, the impact is likely to experience significant delay before it is effective (Leverage point #9).	Weak
	The actions in this area overwhelmingly focus on prohibition or reducing the flows which are physical elements (Leverage point #12-10)[2].	Weak
Commissioner for Children and Young People		
What the report says	**Systems discussion**	**Systems "category"**
The report recommended the appointment of a senior and independent person who can focus on the interests and wellbeing of children and young people and report to Parliament.	Seniority: the seniority here refers to someone with authority in the eyes of the Australian government. It firmly places this role in the path of significant information flow (Leverage point #6).	Medium
	Independence: again, this relates to information flow and opens up information, which would otherwise sit only with government, to a wider audience and this potentially can increase accountability of government (Leverage point #6).	Medium
	Focus: strategies to target young people and children are always associated with significant delays for obvious reasons. Delays are related to weakest leverage points. Linking the combination of elements, that is a senior and independent person (assuming the previously discussed information flows exist) to its intended impact puts in place a thermostat of sorts—a balancing feedback loop that could mitigate the usual delays (Leverage point #8).	Medium

Family and Community Services (Child Protection) and the Police		
What the report says	**Systems discussion**	**Systems "category"**
Both of these arms of government need to work together more and with local communities. The report proposed an Advice Hotline so anyone concerned about possible child sexual abuse can call someone for confidential information and advice.	How government departments will work together: the recommendations refer to co-working between these arms of government as well as others. This touches multiple leverage points: • Relates to structures and flows—and focuses on points of intersection (Leverage point #10). • Information flows—who does and does not have information (Leverage point #6).	Weak Medium
	The hotline ostensibly relates to information flows (leverage point #6). While this is therefore categorised as a medium leverage point, notice should be paid to the flow of information beyond into the Hotline. In particular, if in practice, the Hotline is a "dead end", then this **could** be reassessed as an input only and as such a weak lever (Leverage point #12).	Medium
	How government departments will work with community: the emphasis here is on different government departments communicating and collaborating with aboriginal elders (Leverage point #6 and potentially Leverage point #4—self organisation). This partly depends upon how much autonomy is transferred to local communities.	Medium
	Increase number of child protection workers: this is essentially increasing the physical elements of the system, i.e. the stock of the workers (Leverage point #12).	Weak
Family Support Services		
What the report says	**Systems discussion**	**Systems "category"**
Family services need to be improved to help strengthen families and keep children safe and healthy.	To achieve this, a number of increases in services, workers and access points will occur, which are physical leverage points (Leverage points #12-11).	Weak
	The focus is heavily on linking to communities through existing and new aboriginal-run structures. If this is successful, it will create a positive feedback loop (Leverage point #7) as well as encourage self-organisation and increase information flows within communities (leverage point #6).	Medium

Empowerment of Aboriginal Communities		
What the report says	**Systems discussion**	**Systems "category"**
Communities can take more control and make decisions about the future. The report recommends ways in which this can happen, including: the role that men and women can play the introduction of community justice groups better dialogue between mainstream and aboriginal society	At the most simple level, this goal involves an increase in inputs to resource the activities (Leverage point #12).	Weak
	Dialogue between mainstream and aboriginal society, particularly the law makers within each, including community justice groups. A large focus of these activities is to create a set of locally agreed sanctions and pass information into courts. At one level this could be interpreted as increasing information flows and shaping rules of the system—which relates to rules of the system. However, these two groups of stakeholders are not of equal standing as history shows Australian government "rules/ laws" over-ride any/all local customs and cultural traditions. Therefore this has been allocated as changing structures of systems and increases points of intersection (leverage point #10).	Weak
	Role of men and women: including establishing men's and women's night patrols and groups. These are attempts at creating negative balancing loops to contain negative or destructive behaviours such as violence or abuse of alcohol (leverage point #8).	Medium

In summary, the recommendations arising from the authors of the "Little Children are Sacred" report are evenly balanced across weak and medium leverage points as seen in Figure 3.
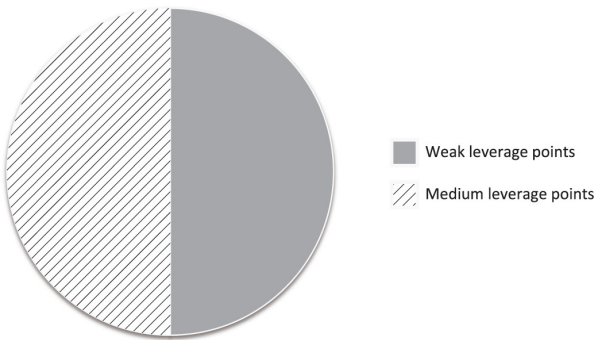

Figure 1. "Little Children are Sacred" report (summary) recommendations categorized according to Meadows' places to intervene

A question regarding the impact of this work is the lack of authority of the authors, beyond this "point in time" report. The recommendations in the report are outside of the control and influence of the authors (as they had a reporting role, not a service delivery or policy development role). Nevertheless, this document was and still is considered to be an influential input, or source of "evidence" that informed subsequent policy.

This flags, in the first analysis, that leverage points alone are not enough to fully illuminate the issues and potential impact of a policy—context is part of the equation.

Example 2: Northern Territory Emergency Response (NTER)

On 25 June 2007, the Australian Government established the Northern Territory Emergency Response (NTER), with in-principal bipartisan support, in the wake of the 'Little Children are Sacred' report (see previous section). While the NTER is now absent from the policy landscape in Australia, the NTER report itself is used here for the insight it offers into wicked problems, dramatic responses and unintended consequences.

The aims of the NTER were "to protect children and make communities safe"within the context of longer term reforms that were designed to create a better future for Aboriginal communities in the Northern Territory in general and some specific communities in particular (Yu, 2008). The measures and sub-measures which comprised the whole of the NTER activities (Yu, 2008) were formed through a mixture of legislative changes and actions.

While coming from a mixture of different sources for the purposes of this discussion and analysis, the NTER measures and activities are being considered as a single "social policy" document. **Note: this is how they have been reported against by the NTER Taskforce and Reviews** (Gordon, 2008; Yu, 2008).

Table 3. *NTER Measures and sub-measures (FAHCSIA 2009) categorised against Meadows' places to intervene*[3]

Area of Activity	Activity (summarised)	Systems category
Measure 1: **Welfare reform and employment**	• Income management of half of people's welfare payments to ensure children's needs are met	Medium (Balancing loop # 9)
	• Licensing of community stores	Medium (Rules, #5)
	• Creating jobs in communities outside Community Development Employment Projects (CDEP)	Weak (Numbers, #12)
	• Increased participation in remote areas including Work for the Dole activities	Weak (Numbers, #12 and Buffers #11)
	• Community employment brokers in communities	Weak (Structures, #10)

Measure 2: **Law and Order**	• More police in remote communities	Weak (Numbers, #12)
	• Bans on alcohol and pornography in prescribed areas	Medium (Rules, #5)
	• Expanded night patrol services	Weak (Numbers, #12)
	• Additional legal services and interpreter services	Medium (Information flows #6 and rules #5)
	• Child abuse intelligence desk	Medium (Information flow #6)
Measure 3: **Enhancing education**	• Extra teachers	Weak (Numbers, #12)
	• Extra classrooms	Weak (Numbers, #12)
	• Expansion of literacy programs	Medium (Information flows, #6)
	• Quality teaching package	Weak (Buffer, #11)
	• School breakfast and lunch programs	Weak (Numbers, #12)
	• School boarding facilities	Weak (Numbers, #12 and structures #10)
Measure 4: **Supporting families**	• New and improved safe houses for families experiencing family violence	Weak (Numbers, #12)
	• Additional child-protection workers and aboriginal family and community workers	Weak (Numbers, #12)
	• More children's services and family support services	Weak (Numbers, #12)
	• Increased diversionary activities for young people (capital program)	Weak (Numbers, #12 and Structures #10)
Measure 5: **Improving child and family health**	• Health checks and follow-up treatment for children	Medium (Positive loops, #7)
	• Specialist support for children who have been abused	Weak (Numbers, #12 and Structures #10)
	• Extra drug and alcohol rehabilitation and treatment services	Weak (Numbers, #12 and Structures #10)
Measure 6: **Housing and land reform**	• Five-year lease on Aboriginal townships	Medium (Rules, #5)
	• Community clean-ups	Medium (Positive loops, #7)
	• Building new houses	Weak (Numbers, #12)

	• Government business managers to live and work in communities	Medium (Information flows, #6)
	• Increase community engagement, including the employment of Indigenous Engagement Officers	Medium (Positive loops, #7)
	• Ombudsman support provided to NTER	Medium (Information flows, #6)
	• NTER Taskforce established	Medium (Information flows, #6)
	• Logistical support from Defence (Army)— for initial implementation	Weak (Numbers #12 and Structures #10)

<div align="right">(FAHCSIA, 2009)</div>

Figure 4 shows that most actions from the NTER measures are directed towards weak leverage points. Whereas the "Little Children are Sacred" recommendations did not have the status of government mandate, the NTER certainly did and this has formed the basis of subsequent government policies spending, as at 2010, over $3.5 billion dollars annually around the country (i.e. beyond NT) (Australian Government, 2010, p.11). This raises questions about cost-benefit and how effective a policy can be when majority of actions (according to this analysis) are actually pushing on the weak group of leverage points.
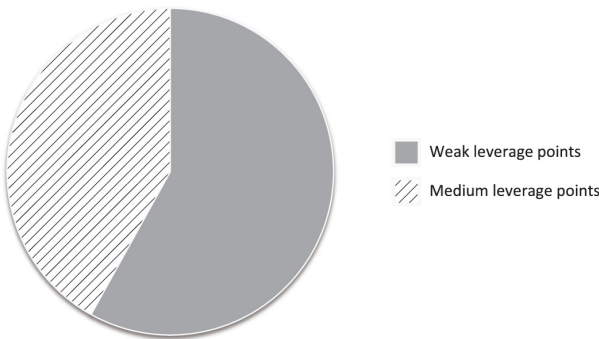

Weak leverage points

Medium leverage points

Figure 2. NTER measures categorised as per Meadows' places to intervene

Example 3: Report from Coordinator General for Remote Indigenous Services

The Office of the Coordinator General for Remote Indigenous Services (CGRIS) was created in 2009 through the *s15 of the Coordinator-General for Remote Indigenous Services Act 2009* (ComLaw, 2009). It was established to:
- "Oversee implementation of the National Partnership Agreement on Remote Service Delivery
- Report to government and ensure government services are accountable
- Have authority to work across agencies and reduce government bureaucracy or red tape which reduce efficiency of services and
- Have a direct link to the government structures and services and single

government contact points in communities."

<div align="right">(Australian Government, 2011, p.112)</div>

The creation of this office is closely linked to the twelve month anniversary of the signing of the COAG National Partnership Agreement on Remote Service Delivery (one of the post-NTER artefacts). While this office is very definitely a government department, the Act aims for a high degree of independence for the Coordinator General as the person who reviews and reports against achievements of the government.

Part of the initial work of the CGRIS was to create a reliable baseline of information from which to assess any changes or improvements. Through the process of developing the baseline report, the CGRIS incorporated a range of recommendations into the first report, recognising the potential influence of the reports and the office as "there are a number of forums, processes and reviews which this report may also inform" (Gleeson, 2009, p.6). For these reasons, the first CGRIS report is being used here as an example of a form of "social policy", because its mandate goes beyond mere reporting. These recommendations are seen in Table 5, and coded as per Meadows' categories.

Table 4. *Recommendations from the first CGRIS report (Gleeson 2009, p99-110) against Meadows' places to intervene*

Recommendation topic	Recommendation	Systems Category
Recommendation 1: **Recognising the role of Local Government**	By mid-2009, COAG should ensure the National Partnership Agreement on Remote Service Delivery clearly states the role of local government.	Medium (Rules)
	Local Implementation Plans developed under the National Partnership Agreement on Remote Service Delivery should be multilateral agreements between all three levels of government and communities.	Medium (Information flows)
	Local government in each of the priority locations should, by the end of February 2010, nominate a liaison officer to streamline coordination with Regional Operations Centre and assist in the development of Local Implementation Plans.	Medium (Information flows)
Recommendation 2: **Government presence in communities**	Local Implementation Plans should reflect Australian, State and Territory Governments and agencies with community service obligations to remote locations plan to increase their footprint over time to ensure that the National Partnership Agreement on Remote Service Delivery communities have access to adequate financial transactional capacity, postal service, licensing and bill paying facilities to support the objective of increasing economic and social participation.*[sic]*	Weak and Medium (Physical elements is goal achieved via Rules)

	State and Territory governments should commit to providing more visible and responsive policing in National Partnership Agreement on Remote Service Delivery communities including regular publicly available reporting to communities of: • Minimum local policing levels; • The number and nature of daily community patrols; and average response times.	Weak (Physical)
	The Department of Human Services should by early 2010, examine ways to improve Centrelink transactional and case management services in National Partnership Agreement on Remote Service Delivery communities.	Weak (Structures)
Recommendation 3: **Implementation of Remote Service Delivery**	By mid 2010, the Australian, State and Territory governments should each examine the use of more flexible funding approaches which aggregate departmental funding into a master contract with each National Partnership Agreement on Remote Service Delivery community to: • Align service delivery and provide some flexibility to modify inputs to help achieve the Closing the Gap outcomes; and • Streamline reporting and reduce red tape.	Medium (Rules, information, feedback)
	In conjunction with Local Implementation Planning and by no later than mid 2010, Australian, State and Territory governments should ensure that funding arrangements under the National Partnership Agreement on Remote Service Delivery provide each community with adequate support for ongoing governance and leadership training. These arrangements should recognise the different circumstances of individual communities and provide for flexibility in prioritising funding for governance and training across the Remote Service Delivery communities.	Medium (Positive loops – more local governance begets more local governance)
	The arrangements should also include providing Regional Operations Centres and Government Business Managers with specialist support in developing tailored governance and leadership training packages for communities.	Weak (Physical)
	Local Implementation Plans should include agreement of all parties to community governance and leadership improvements, and the ongoing funding and support that will be required to meet these outcomes.	Medium (Rules) Weak (Funding)
	That COAG restate its commitment that priority should be given to the locations identified in the National Partnership Agreement on Remote Service Delivery when implementing all relevant COAG National Partnerships.	Weak (Structures and intersections of parts of system)

	Australian, State and Territory government education departments should consider creating liaison officer positions, establishing surge teams or out-posting officers to Regional Operation Centres to assist Government Business Managers to assist with Local Implementation Planning and coordinator investments to develop successful education pathways from early childhood through to post school training and employment tailored to the needs of individual communities.[4] *[sic]*	Weak (Pysical – increasing numbers)
Recommendation 4: **Construction of Infrastructure**	That the Australian Government Departments of Infrastructure, Transport, Regional Development and Local Government; and Families, Housing, Community Services and Indigenous Affairs, in consultation with relevant State and Territory departments, investigate the feasibility of a single whole of government contracting entity to plan and manage construction of community facilities in remote locations, with a scoping paper to be presented for consideration by COAG in the second half of 2010.	Medium (Self-organising potential, information flows, rules)
Recommendation 5: **The APY Lands**	That the South Australian Government leads immediate action to develop an effective platform, including certainty of access to government-funded service providers to ensure the delivery of services to Anangu.	Weak (Measures, plans)
Recommendation 6: **Land tenure in Western Australia**	That the Western Australian Government recommits to the resolution of tenure issues as a priority and provides a timeframe for action to ensure new housing is delivered to communities in greatest need.	Weak (Measures, plans)
Recommendation 7: **Education in Queensland**	That the Queensland and Commonwealth Governments commit to urgently examine the Cape York Institute's Academy proposal and what elements of the proposal might be adopted immediately to build on existing efforts to lift educational outcomes in Queensland priority locations.	Weak (Plans, structures)
Recommendation 8: **Governance in the Northern Territory and New South Wales**	That the Northern Territory and New South Wales Governments ensure that in implementing recommendations 3.2 – 3.4, care is taken to align these activities with jurisdictional activity: • In the Northern Territory, this should include the government working with local shires to accelerate the roll out of Local Area Boards in the priority communities and ensuring they are properly resourced, informed and effective in advising on decisions associated with local government matters in these communities. • In New South Wales, that assistance is consistent with its own Partnership Community Governance Framework and the Regional Partnership Agreement for the Murdi Paaki region.	Weak (reducing delays) Medium (Information flows) Weak (Plans aligning/ structures)

Figure 5 indicates that the CGRIS report recommendations appears to focus on the more weak leverage points than medium leverage points.
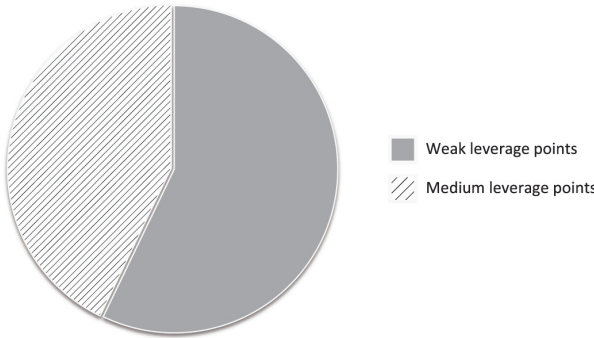
Figure 3. CGRIS recommendations categorised as per Meadows places to intervene

This is somewhat surprising, as the Coordinator General's status is as both a relatively independent and an authorised arm of government. Under these conditions, a more influential set of recommendations might have been expected. To explore this further, the Terms of Reference or purpose of the Coordinator-General have also been analysed as per Meadows' leverage points in Table 6.

Table 5. *CGRIS Purpose analysed as per Meadows' places to intervene*

CGRIS Purpose (Australian Government 2011, p112)	Leverage point
Oversee implementation of the National partnership Agreement on Remote Service Delivery (where a report can be seen as an output = Physical/Weak leverage point).	While this activity in itself may not be a weak leverage point, it does involve great **delays** to look for the reduction of generational disadvantage in multiple forms. As such this is a **WEAK** leverage point.
Report to government and ensure government services are accountable.	A report is an **input** and therefore is a **WEAK** leverage point.
Have authority to work across agencies and reduce government bureaucracy or red tape which reduces efficiency of services.	This places activities at the **structure** points of the system. This is a **WEAK** leverage point.
Have a direct link to the government structures and services and single government contact points in communities.	Links the CG to information flows. Allows it to influence, to a degree, the **self-organisation** of a system. This is a **MEDIUM** leverage point.

This simple assessment of the CGRIS' purpose in Table 6 shows that three out of the four goals are actually focused on weak leverage points. Under these conditions, it is not surprising that most activities are prone to focus on weak leverage points. The observation here is about the relationship between how effective interventions can be if the purpose is focused mostly on weak leverage points.

Example 4: Cape York welfare reform

Cape York Partnerships is a development organisation focused on innovative partnerships which maximise Indigenous people's ability to "choose lives they have reason to value" (Cape York Partnerships, 2008). It was formed in 1999 and focuses

on specific parts of Northern Queensland, in particular the Cape York Peninsula. The partnership approach includes Indigenous organisations and communities, corporate and private sector partners, educational institutions, non-government organisations, state and federal government and philanthropy.

"Cape York Welfare Reform is premised on the view that in order to engage individuals in the real economy and for there to be social development in communities, four things must occur:
- rebuilding of norms
- reform of incentives
- normalisation of housing
- a retreat of government from the domain of individual responsibility."

(Cape York Partnerships, 2008)

While the NTER was seen as a divisive and destructive tool of reform by some (Altman, 2007, p.2; Law Council of Australia, 2007), to a degree, the Cape York Welfare Reform plan imitates some elements of it. High level similarities between the two plans include:
- placing encumbrances on government incomes to disadvantaged households
- mainstreaming tenancy agreements (i.e. imposing public housing standards)
- increasing employment strategies.
- However, the Cape York Welfare Reform plan has a different approach and process to achieving its goals. For example, Cape York Welfare Reform imposes blanket expectations on the community but case by case encumbrances and penalties. The NTER approach took the opposite approach, imposing blanket encumbrances and no exceptions.

The Cape York Institute is an independent policy and leadership organisation championing Indigenous social and economic reform. While the Institute offered some qualified support for NTER, it heavily criticised it as a "blunt instrument" approach because "responsible people shouldn't just be lumped in with irresponsible people" (Pearson, 2007).

Through a combination of foundational reports produced by Cape York Institute (Cape York Institute, 2007) and the agreement of a range of stakeholders to partner together, the Cape York Welfare Reform project was commenced and initially formed four areas of focus. Table 7 codes the action areas of this policy against Meadows' *places to intervene*.

Table 6. *Cape York Welfare Reform Plan (FAHCSIA 2008) categorised as per Meadows places to intervene*

Area of Focus	Action	Systems Category
Education	Attendance case management framework Expectation of 100% school attendance. Case managers work with stakeholders to set and meet the expectations.	Medium (Feedback loop)
	Making up for lost time in literacy (MULTILIT) Project to embed sustainable high quality literacy, specifically designed for low-progress readers.	Medium (Feedback loop)
	Student Education Trusts (SETs) Money management service to support families to manage income through child's education—like a savings account. It works through making clear expectations of parents and schools and putting in place a system to support those expectations being achieved.	Weak (Delays and buffers)
	Aboriginal and Torres Strait Islander Study Assistance Scheme (ABSTUDY) Financial support to eligible students to attend a school outside their community.	Weak (Numbers) Medium (Positive loop – the more it works, the more it works)
Housing	Home Ownership The need to increase the very low rates of Indigenous home ownership is premised on the majority of housing available being social housing and as such is a form of passive welfare. This strategy is focused on enabling families to purchase the social housing in which they live.	Medium (Rules change)
	Mainstream tenancies Normalising tenancy arrangements to increase a sense of rights and responsibilities, creating a more empowered tenant who can expect more from their landlord and making choices in their housing.	Medium (Positive loop)
	Pride of Place Initiative financial aid (to eligible households) provided to improve presentation of houses and gardens which in turn has a positive effect on social norms. Also includes skill building elements and improved confidence and family co-working and affects both public and private properties.	Medium (Positive loop)

Social responsibility	Family income management Voluntary and confidential money management education and support service.	Medium (Information flows)
	Families Responsibilities Commission (FRC) Independent statutory body of commissioners to help rebuild social norms by appointing elders, articulating values, sending consistent messages about expectations, determining appropriate actions when expectations not met, referring families and people to support and directing income to be managed by government when assessed as necessary.	Medium (Rules and information flows)
	Income management for Cape York Welfare Reform This relates to the FRC's authority to direct income to be managed by government.	Medium (Balancing loop)
	Supported self-help services The FRC can refer individuals and families to current and new support services to meet expectations by helping them address underlying causes of issues that have brought them to the attention of the FRC. People can also choose to self-refer.	Medium (Rules)
Economic opportunity	Business development Business precincts will be developed in specific locations to create community opportunities to develop business by providing business spaces. Mentoring, loans and skill development activities will be offered.	Weak (physical) Medium (self-organisation)
	Employment Projects that provide work-readiness training, targeted pre-employment assistance work placement and mentoring.	Weak (numbers)

The activities of the Cape York Welfare Reform action plan are most weighted towards medium leverage points, as can be seen in Figure 6. This is possibly influenced because of the history and origins in a non-government body, which was heavily informed by "From Hand Out to Hand Up" report (Cape York Institute, 2007) that seeded the Cape York Welfare reform. Naturally, the Cape York Institute did not experience the same restrictions facing government in conceptualising and developing their social policy, and it is interesting to consider this point of difference, particularly in light of the results of the analysis. This strongly speaks to self-organisation and creating their own rules for the system, which are both medium leverage points.
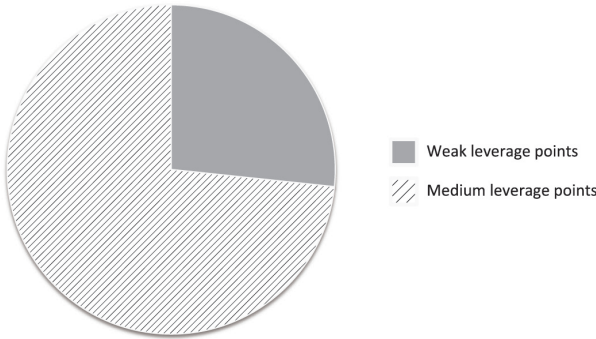
Figure 4. Cape York Welfare Reform plan categorised as per Meadows places to intervene

Discussion

As with any "evidence", the information in the previous sections requires further scrutiny and an analysis of more depth in order to fully understand any value it might present. It also does not sit within a vacuum and "does not speak for itself" (Pawson, 2002, p.340). While only a brief discussion was possible here, it has offered some interesting insights for further exploration. Figure 7 compares the analyses from all four documents and tells four quite different stories, despite their linkages and common topic.
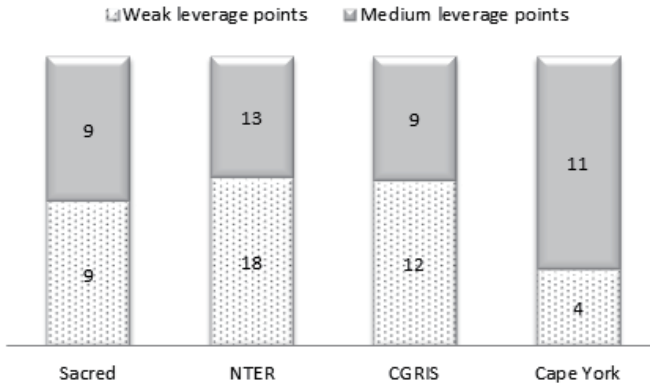

Figure 5. All four policy documents compared after analysis

In an attempt to try and uncover what else is occurring here, Figure 8 presents the policies in a different order to the one which was initially presented. Instead it has been repositioned starting with their links to government, as a spectrum of sorts.

Figure 8 presents the same data in a new order, from heaviest control of government to least control o f government, defined as follows:
- NTER   Government controlled policy
- CGRIS   Government body—albeit with independence
- Sacred   Independent evaluators, contracted by government, report published by government
- Cape York   Originally driven by non-government organisation, collaboration between community, service organisations and government

The data has also been changed to percentages to show proportionate differences and assist with a comparison. While this is a simple analysis, it begs the question: do leverage points increase in influence, the further the government control diminishes or are they balanced by other forces?
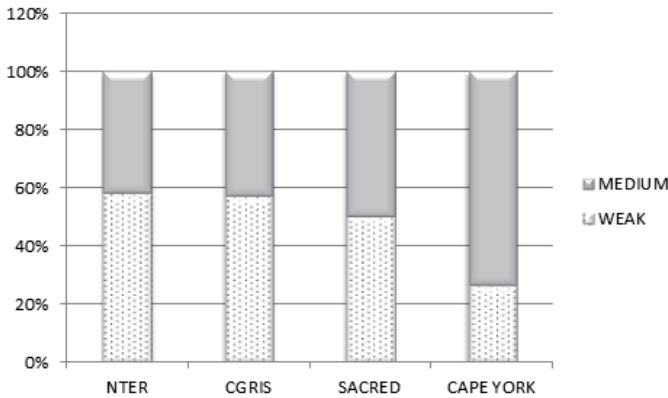

Figure 6. Reports compared as percentages in order of most government control to least government control

The "Ideas" Behind the Policies

As mentioned, the discussion of the strongest leverage point, the "ideas" (encompassing the goals, paradigms or transcending paradigms) behind these examples, has been left to last to discuss.

The reason for leaving this group of leverage points to last is partly because every policy purports to have an idea linked to it or behind it. If we accept that every policy has some idea behind it, then each policy initiative would possibly score equally in this category if we were to weight the presence of a goal or paradigm as a "strong" leverage point. In this way, all the reports are equal. However, scoring them as such adds nothing of value to the analysis, and an alternative method is to consider how well the goals of the plan align with the actions within the plan. To do this, the following scale is proposed:

0 = Poor/no alignment
(where activities do not seem linked to the stated goal and majority actions are "weak")

1 = Good alignment
(where activities seem to align with goal and leverage points are closely balanced between "weak" and "medium")

2 = Strong alignment
(where activities seem to align with goal and majority of leverage points are in "medium" category)

In Table 8 the "ideas" or goals behind the four policy documents are discussed and scored according to this scale.

Table 7. *Ideas/goals scored of all four reports*

Report	What the report says	Score
Little Children are Sacred	The overall conclusion behind the full report was that "the sexual abuse of Aboriginal children is happening largely because of the breakdown of Aboriginal culture and society" (NT Government 2007, p3). The subsequent basis of recommendations from the report is the idea that supporting and empowering communities is key to preventing child sexual abuse now and in the future (NT Government 2007, p4).	Scored "1" Actions do not necessarily address the breakdown of Aboriginal culture and society. Actions evenly distributed between weak and medium leverage points.
NTER	The aims of the NTER were "to protect children and make communities safe" within the context of longer term reforms that were designed to create a better future for Aboriginal communities in the Northern Territory in general and some specific communities in particular (Yu, 2008).	Scored "0" Actions not aligned with stated intent[5] and majority of actions "weak".
CGRIS	Facilitating a positive change for Indigenous Australians in the Remote Service Delivery National Partnership priority communities by changing the way government works with them.	Scored "1" Actions aligned, but majority weak.
Cape York Welfare Reform	Cape York Welfare Reform is premised on the view that in order to engage individuals in the real economy, and for there to be social development in communities, four things must occur: • Rebuilding of norms • Reform of incentives • Normalisation of housing • A retreat of government from the domain of individual responsibility	Scored "2" Actions aligned, majority are medium leverage points.

Figure 9 combines the scoring of the "idea" behind the plan or policy in Table 8, with the coding of the policy/plan's activities itself (as a percentage) from Figure 8.
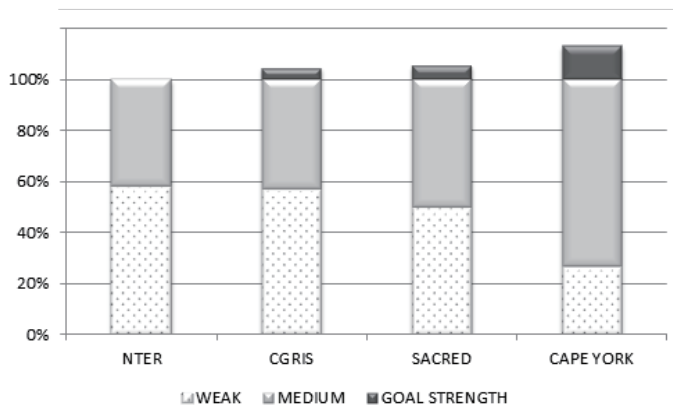

Figure 7. Reports compared, as percentages, including scored "idea/goal" in order of most government control to least government control

This second layer analysis is offered as a simple way of showing increased layers and methods of analysis. By thoughtfully adding layers of analysis, an increasingly nuanced picture of a policy emerges. This helps us ask better questions that assist in developing social policy. A primary question being: what are the conditions under which an effective social policy could be developed?

Part of a bigger picture

Leverage points in of themselves do not tell the whole story behind complexities and context of the social policy creation and there is much more going on in these policy documents, than what is revealed through any mere analysis of measures, actions, recommendations and goals. For the purpose of this discussion, the premise of Meadows' work has been accepted and used as the foundation for further application. However, beyond the exploration of weak and medium leverage points, there are layers of other factors which create and interact with social policy, such as the tacit knowledge which sits within a system, the rhythm of a system and the interdependencies between systems, just to name a few.

A challenge for foresight practitioners is to find ways that foresight methods can become operationally relevant and useful for creators of social policy. Into this space, a systems tool was developed and utilised, as a vehicle to understand the issue and interpret the potential impact of social policy focus. It may also be a 'safe' way for government to segue into other foresight approaches in acceptably rigorous ways. Through that, this analysis highlighted how much effort is directed towards what are in actual fact 'weak' leverage points—the physical elements—under certain conditions.

Meadows' work in general and any usefulness arising from this tool in particular, should be considered in the context of the existing rich knowledge base of complementary works which also explores ways of transcending paradigms, which Meadows does through "leverage points". These include: Inayatullah's causal layered analysis approach (Inayatullah, 1998); Hayward's work on viable systems (Hayward, 2003); and Slaughter's work that attempts to reconcile 'problems' with agency through foresight (Slaughter, 2010), just to name a few. Additionally, work exists which specifically combines the issue of social policy (wicked problems) with foresight (Fobe and Brans, 2011; Foster-Fishman et al., 2007; Schultz, 2006; van der Duin et al., 2009; Fuerth, 2009; Fuerth, 2011; Habegger, 2010; De Smedt, 2006), confirming the relevance of foresight approaches in this space.

Where in the past, ideology may have shaped social policy, now evidence based policy is the crutch upon which governments heavily rely. This is despite some inconvenient truths about the limitations of contemporary knowledge generation and knowledge consumption, and problems so modern no evidence yet exists. The challenge following this analysis is to continue to identify systematic and rigorous methods of answering the question "what else is going on" (Voros, 2003) in ways which offer useful insight into social policy. Foresight approaches offer many options in this regard. Clearly, there is no silver bullet for creating wiser and more impactful social policy. It is a wicked space and must be approached through a range of strategies.

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Notes

1 Social policy is of course not just the domain of government.
2 Note– some might argue that changing the rules/laws is part of information flows. However since the existing "rules" are not currently effective, it was considered to be misleading to link this prohibition approach to the medium leverage point of #6.
3 With over 30 activity areas, the headline activity is all that is listed here in the middle column. However, the systems category is informed by referring to the detail within the measure description.
4 Note: Taken at face value, this activity could be interpreted as an information flow, which is a "medium" leverage point. However, further scrutiny of core documents suggests that this is less about feeding information back into the system, than it is about increasing positions on the ground to meet need.
5 This is based on extensive critiques of the NTER (Altman, 2007).

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