Moving from rhetoric to effective implementation for Australian governments' sustainability policies

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Abstract

The effectiveness of government policies for achieving sustainable development is increasingly the subject of international research. This paper examines coordinated approaches to policy implementation through seven case studies, builds on prior findings regarding coordination, and places the problem in a complex governance setting. Five issues are highlighted: cooperative federalism; the sustainability notion; political considerations; emergent power imbalances between levels of government and/or other stakeholders; and, finally, the size, scale and scope of programs. From these five elements, two critical themes and what they mean for theoretical development are assessed: firstly, the effectiveness of policy is examined within the federal system of government; and secondly, the importance of political and power imbalance considerations in the governance of sustainable development, particularly use of the politics of fear, and bureaucratic processes and party politics.

Keywords

Government policy; sustainability; sustainable development; Australia; effective implementation

1. Introduction and problem identification

Sustainability is a controversial concept (Dryzek 1997; Farrell et al. 2005; Jordan 2008; Adger & Jordan 2009). Sustainability appears straightforward in meaning – economic, environmental and social development that is achievable over long periods (Adger & Jordan 2009) –

the reality is sustainability is very difficult to achieve. Schnitzer and Ulgiati (2007) point out that "sustainability", as it is commonly understood, is more of a vision and does not indicate how one might act. This vagueness is a source of confusion as various tiers of governments establish sustainability agenda and policies in their respective jurisdictions.

There is considerable rhetoric associated with sustainability (Upham 2001), and while some effective sustainability policies are being developed, too many are ineffective or not being implemented at all. Effectiveness is defined here as being usefulness of policy to achieve stated program goals. The problem of ineffective implementation of sustainability policy is evidenced by research reported here. Determining the elements contributing to this problem, how they are inter-related and how they can potentially be managed make up the focus of this paper. Governments are a major governance structure for sustainability: the only institutions with the authority to enable binding global treaties and the legitimacy to set policies within their own jurisdictions (Weale 2009). Thus, the research asks several questions: Why is government implementation of sustainability policy inconsistent in its effectiveness? What are the key elements contributing to this inconsistency in effectiveness? What is the relationship between these elements which could provide a gauge to assist better implementation of Government sustainability policy?

The paper firstly establishes the general significance of the problem of ineffective policy implementation in Australia through a literature review. This review assists with the identification of key elements which influence policy development and implementation. Secondly, the research method is described and a description of the case studies provided. Thirdly, analysis of the case studies is provided with regard to preliminary relationships between the potential key elements identified, as well as any emerging elements in an assessment of government sustainability policy effectiveness. Finally, these relationships are discussed together with their potential usefulness as a tool or guide to assist effective implementation of government sustainability policy in Australia.

2. Effectiveness of sustainability policy in Australia: significance of the problem

Traditionally, sustainability focuses on environmental aspects of development (Upham 2001). The notion of sustainability is based on three core pillars – economic, social and environmental – although O'Connor (2006) extends this notion by including a fourth pillar, politics. O'Connor (2006) emphasises a model of sustainability where each pillar is dependent on the other. Achieving proportionality between the pillars is necessary to create and maintain sustainability. By incorporating politics O'Connor

(2006, p.286) notes that '[t]he political sphere has the role of the "referee" that arbitrates in relation to the different – and often incompatible – claims made by the actors of the social and economic sphere for themselves and with regard to the other spheres (including the environmental sphere)'.

O'Connor (2006) contends that the political pillar regulates the social and economic pillars, and indirectly, the environmental pillar. While governance of sustainability will incorporate a number of mechanisms (Jordan 2008; Adger & Jordan 2009), in the absence of credible alternative governance models, government will drive the implementation of national and sub-national policies that promote sustainability.

Co-ordinated government policy is critical to the successful achievement of sustainability (Russel & Jordan 2009). Australia adopted a national strategy on ecologically sustainable development in 1992 (Ecologically Sustainable Development Steering Committee 1992), which was quickly disseminated through all levels of government via intergovernmental agreements (McKay & Rauscher 2007, p.75). A number of areas were identified as priorities including transport, industrial adjustment and recycling. However, the agenda specified in the national strategy (Ecologically Sustainable Development Steering Committee 1992) has been diluted in public policy (Albrecht 1994; McKay & Rauscher 2007). The principles of sustainability, as specified in this national strategy, have not been completely abandoned, but whole areas identified as actionable are now ignored, compromised or watered down (McKay & Rauscher 2007).

It is in the adoption of a national strategy and the subsequent lack of implementation that key barriers can be identified. McKay and Rauscher (2007, p.78) note that federal and state governments during the 1990s and thereafter focused on building budget surpluses to appease financial markets; they were unwilling to develop policies that threatened the viability of big businesses, particularly mining and energy. Whilst McKay and Rauscher (2007) conclude that the Commonwealth government failed to implement the National Strategy, the States on the other hand converted the strategy into a guiding framework that is, for the most part, implemented by local government.

While governments recognise the need for sustainable development, achieving it remains elusive. Governments and business have tended towards promoting short-term benefits of economic development over long-term environmental and social considerations (Business Council of Australia 2004). Governments continue to choose *between* the economic, social and environmental pillars, in the belief that they are substitutes rather than complements (O'Connor 2006). Furthermore governments – despite the existence of policies, regulations and laws – often succumb to economic threats, putting aside policies, regulations and even laws, to accommodate corporate power to the detriment of society and the environment (Lowe 2005). Australia, being a relatively small country, sees

large multinational corporations as its greatest contributor to economic growth and higher standards of living (Chatterjee et al. 1996; Yang, Groenewold & Moonjoong 2000).

The obsession with economic growth is often viewed as the most fundamental of economic problems facing any country (Lowe 2005, p.73). This obsession, driven by corporate power, often takes preference over the goal of social equity and environmental protection; to achieve these goals it is argued that government intervention and regulation is required. Environmental policy presents a challenge to Australian governments because the economy relies on exploiting natural resources for revenue and exports and, hence, a rising standard of living (Fenna 2004, p.417). As society becomes increasingly aware of the importance of maintaining the environment, governments as the representatives of society must balance their utilitarian attitudes towards nature as a resource to be exploited with the current need to produce social equity and environmental sustainability. This challenge has been met with limited success to date.

3. Identifying key elements that cause ineffective or non-implemented policy

Identification of elements influencing implementation of sustainability policy can be revealed through a search of relevant literature. A set of three main elements (federalism, sustainability and political considerations) and six sub-elements (inter-government co-operation, state rivalry, vague definition of sustainability, disproportional emphasis on pillars, fear and bureaucracy) can be identified and are examined in turn below.

3.1 Key element 1: federalism

The Australian federal system is a hybrid democratic system blending elements of: firstly, the United Kingdom's "Westminster" systems (a cabinet formed from members of the legislature and a Head of State (the Governor-General) which is separated from the Head of Government (Prime Minister)); and secondly, the United States' "Washington" system (division of power between a single national and multiple state parliaments and a bi-cameral parliament with a House of Representatives and Senate) (Lucy 1985). The Australian constitution divides powers into three types: *exclusive Commonwealth powers*, exercisable only by the national parliament including the sole right to levy income taxes; *concurrent powers* with both national and state parliaments having jurisdiction; and, *exclusive state powers* exercised by state parliaments (Ward & Steward 2006). The result is an asymmetric relationship between the Commonwealth and states in which the former dominates the latter financially via a monopoly over income tax revenue and by imposing conditions on revenues provided to the states (Lucy 1985, p.319).

In addition, a tier of government exists but is not recognised in the Australian Constitution: local government. This is the lowest tier of government in Australia with jurisdiction over relatively small geographical regions. Local governments are the creation of the states, in South Australia, for example, under the *Local Government Act* ((*Local Government Act* 1934) and (*Local Government Act* 1999)). Section 7(e) of the South Australian *Local Government Act (Local Government Act 1999)*, notes the functions of a council include 'to manage, develop, protect, restore, enhance and conserve the environment in an ecologically sustainable manner, and to improve amenity'.

3.1.1 Sub-element 1: co-operation between levels of government

Australia's federal system is subject to criticism (Copland 1937; Wright 2000). National issues often require *co-operative* federalism with the states, territories, and Commonwealth enacting mirror legislation, or the states and territories signing over powers to the national parliament in 'mutual agreement and collaborative joint action' (Singleton et al. 2003, p.73). The success of cooperative federalism is debatable, a range of social and economic reforms has been implemented using a cooperative approach through the Council of Australian Governments (COAG) as the main vehicle (Anderson 2008, p.495). However, cooperation on a large scale is elusive, owing to entrenched state and state-commonwealth rivalries.

Local governments are subject to extensive funding restrictions with their main source of income from rates levied against property (residential and commercial). However, local governments, despite evidence that they exist in a permanent state of near financial bankruptcy (Dollery, Crase & Byrnes 2006), have been subject to increasing responsibility from state and at times commonwealth governments, as these higher levels shift costs downwards (Bennett 2006, p.26). Hence, the responsibility for implementing federal and state government sustainability policies has slowly devolved to the local government level, but generally without a commensurate increase in funding (McKay and Rauscher 2007).

3.1.2 Sub-element 2: state rivalries

Continuing tensions between states and the Commonwealth undermine co-operative federalism (Jones 2008). Owing to the nature of Australia's federalism, a "blame game" can result when interests differ between the various governments. Singleton et al. (2003, p.92) point out that rivalries can take a number of forms including: claims by states with small populations that more populous states are trying to monopolise affairs; populous states claiming they subsidise the smaller states; states blaming the commonwealth for a lack of money; and the commonwealth accusing the states of poor financial management. The result is a rivalry between

levels of government to maximise their own interests, often at the expense of other governments and to the detriment of the nation (Nadolny 2007).

3.2 Key Element 2: the notion of sustainability

Two key sub-elements related to sustainability are considered: vagueness of the concept and the idea of proportionality in relation to pillars of sustainability.

3.2.1 Sub-element 1: vagueness of the sustainability notion

A major issue in the sustainability debate is: what does sustainability mean? For example, Ferdig (2004) considers sustainability to be a mindset or consciousness in which people's well-being, accounting for natural resources and economic prosperity, are reflected in the way lives are lived and organisations led. Yet, the most commonly cited definition of sustainable development is from the *Brundtland Report* (World Commission on Environment and Development 1987, p.43) 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. In effect sustainability focuses on the core concepts of needs, limitations, development as a transformative process, and intergenerational equity.

Sustainability remains a vague notion despite further research (Phillis & Andriantiatsaholiniaina 2001). This vagueness allows governments to "hijack" sustainability to serve their own purposes (eg see Jones 2004; McLaughlin 2004; Rist 2007). How can one be held accountable for that which is not understood, or understood in a consistent manner? Boehmer-Christiansen (2002) states that sustainability is a very attractive notion to politicians because it offers an opportunity to forge new alliances with stakeholders interested in environmental protection. Yet this interest has resulted in the politicisation of sustainability, reducing the notion to an excuse to intervene in an expanded range of activities (Boehmer-Christiansen 2002).

However, despite the *Brundtland Report* definition, critics call sustainability too vague to be useful; rather than providing a strong foundation for the development of government policy, it instead empowers 'bureaucracies to enlarge or reaffirm old roles' (Boehmer-Christansen, (2002, p.352).

3.2.2 Sub-element 2: pillars of sustainability and disproportionality

Achieving sustainability requires at least three interdependent pillars to be considered: (i) environmental, (ii) social, and (iii) economic (Sneddon, Howarth & Norgard 2006 255). More importantly they must be equitably proportioned (Lowe 2005; McDonald 2005; Gibson 2006; Sneddon, Howarth & Norgard 2006; Skowronski 2007; Jabareen 2008).

Policy makers need to learn from the successes and failures of policies regarding sustainability, and continue to promote and implement them in a proportional way, especially how the evolving concept of sustainability including its core notions of belonging, self-worth, safety and connection with nature are understood (Paehlke 2001). People must be provided with goods and services to meet their needs in a manner which accommodates the environment's ecological integrity. Part of this sustainability balancing act is recognising that a sustainable community requires financially viable businesses, industries and institutions that are also flexible, committed to human resource development, support the local economy, and which utilise capital in the community (Centre for Sustainable Regional Communities 2006). People at the community level need to be empowered and encouraged to take responsibility based on shared vision, equal opportunity, ability to access expertise and knowledge for their own needs, and a capacity to understand and grasp their rights (Centre for Sustainable Regional Communities 2006).

When dealing with corporations it is necessary to promote the notion that they demonstrate environmental and social responsibility that is commensurate with their power. This requires businesses and governments to abandon the dominant economic bottom line concept and take up the cause of sustainability (Beer, Maude & Haughton 2003, p.218). Ultimately, sustainability policy recognizes the pillars of sustainability are interdependent and none are necessarily more important that the others (O'Connor 2006) but their integration is critical.

3.3 Key Element 3: political considerations

Two political sub-elements are considered: the politics of fear and party politics and bureaucracy.

3.3.1 Sub-element 1: politics of fear

The politics of fear is a term coined by Furedi (2003, p.123) and refers to 'the self-conscious manipulation of people's anxieties in order to realise their objectives'. It has been used in many societies and its practitioners, who are often politicians, manipulate people's fears to achieve their goals. Non-government organisations and individuals use it themselves to advance their cause (see Mitchell 2004, p.17 as examples; Ferrett 2007).

The politics of fear operates through implementation, deflecting attention and avoidance. Firstly, to implement policy governments may be spurred into action so they are seen as being responsive and therefore more successful in a policy area. It might be expected that non-government representatives engage in politics of fear activities to force a government to enact and administer appropriate policies. In the first instance, the fear is used to achieve certain things, such as a new government policy. Secondly, politics of fear may be used to deflect attention away from, or towards, an issue. Governments often use politics of fear activities to draw

attention away from an issue, thereby distracting the public and stakeholders in order to cover action or inaction which may not be well received by the community. In deflection mode, the politics of fear is used to distract attention from an issue by focussing on a different matter. When adverse environmental issues are presented to government another issue such as awards for good environmental performance may be used, or a completely different alternative highlighted such as the recent global financial crisis which has moved attention away from climate change. In the community's mind, the original issue now does not seem to have as much importance as the alternative. Attention is effectively diverted from the original issue and accountability suffers.

Finally, to avoid politics of fear, activities highlight severe negative consequences of activity to avoid implementing policy which may be desired by society but are not attractive politically. In the case of the Penola Pulp Mill, the threat of economic decline in the area was used to push through development approvals (via legislation) despite evidence that the mill would result in significant environmental damage to the surrounding area, potentially interrupt rainfall patterns in critical Murray-Darling catchment areas, and was unwanted by the local population. The threat of economic consequences is a common feature of this use of the politics of fear: job losses, threats to economic development, and removal of industries.

3.3.2 Sub-element 2: party politics and bureaucracy

Australia's political system operates along very entrenched party lines and historically this has constituted the Labor Party on one side, and a coalition formed by the Liberal Party and the National Party in Australia on the other. Several minor parties hold the balance of power in the Senate. Party politics guides policy development and the voting of elected parliamentary members, unless a conscience vote is called and overrides the requirement of party voting.

The political party winning the most seats in the lower houses of state and federal parliaments (except Queensland, having only one house) form a government. The party therefore exerts a large influence on government policies. The 1992 adoption of the *National Statement for Ecologically Sustainable Development*, occurred under a federal Labor government. In 1996 the incoming Coalition government played down the importance of climate change and the environment as serious policy issues. The re-election of Labor in 2007 witnessed a resurgence of interest in environment and climate change in the public eye, a trend that continued in the states. Changes in perspectives between political parties and changing policy emphasis has meant disruption for environmental programs (Crowley 1998, 1999).

In addition to party politics, bureaucratic processes may slow or deadlock the introduction and implementation of government policy and lead to the

all too real disruption of environmental programs (Baden & Stroup 1981; Johnson & Levin 2009; Sagarin et al. 2009).

In summary, research literature reveals three key elements and six sub-elements of relevance to moving government from rhetoric towards effective implementation of sustainable development policy:

1. Federalism
    a. Co-operation between levels of government
    b. State rivalries
2. The notion of sustainability
    a. Vagueness
    b. Lack of proportionality between sustainability pillars
3. Political considerations
    a. Politics of fear
    b. Bureaucratic processes and party politics.

These elements are considered through a number of separate case studies related to government sustainability policy, as outlined in the following section on research design.

4. Research design

To examine government sustainability policy in Australia more closely, a qualitative case study research design was employed. Case studies provide significant benefit by enabling an in-depth exploration of contemporary phenomena (Yin 2008), here government sustainability policy and its implementation. Case studies have been effectively used in previous explorations of sustainability and are increasingly seen as important outcomes of research in a variety of disciplines (Eisenhardt 1989; Eisenhardt & Graebner 2007; Ettlinger 2009). The case studies presented here represent a discourse about the need for effective implementation of government policy on sustainability, and the method used is as much about developing a conceptual framework from these cases, the beginnings of an imbricated approach (Ettlinger 2009, p.1019).

With a range of policies and programs available which represent sustainability policy of Australian governments, cases were identified which were well bounded and sourced from all levels of government, whether a single level or multiple levels. A balance of positive and negative case studies indicative of effective and ineffective policies and programs related to sustainability were selected. In all, data was collected during 2010 for seven case studies chosen for assessment. Each case was examined for evidence of the key elements discussed above to assess the effectiveness of the policies or programs, and to identify any additional elements not originally considered.

Data was collected from government websites, newspapers and other media, and scholarly papers. From these sources, specific examples of

outcomes achieved were identified and considered in light of the *National Strategy for Ecologically Sustainable Development* (Ecologically Sustainable Development Steering Committee 1992) the principal framework on which all government sustainability policy and programs are based.

In assessing the case studies for effectiveness, three categories were used: high, medium and low. In each case, evidence was sought which showed impacts on the environment, economic or social pillars within the jurisdiction or purview of the program or policy area. High effectiveness means that significant benefits can be shown, such as improvements in water resourcing including efficiency, improvements in take-up rates of energy or efficient technologies, or changes in the practices of business and individuals such as in terms of waste minimisation. Medium effectiveness means some improvements are evidenced, but effectiveness is undermined by any individual or combination of elements listed previously in this paper, such as poor resourcing or inconsistent implementation. Low effectiveness indicates that the program, policy or practice has shown no evidence of improving any or all sustainability pillars and/or undermines the principles of sustainability. Assessment was made on the balance of positive and negative comments from the available evidence, and whether the case study represented a real attempt at sustainability or a rhetorical device for government. The high, medium or low categories of effectiveness were chosen to reflect that effectiveness is a continuum and that precise measurement of effectiveness is unrealistic.

The seven case studies developed to assess the effectiveness of implementation of government sustainability policy were: (i) *Carbon Pollution Reduction Scheme* (commonwealth government)[2]; (ii) government rebate schemes (commonwealth, state and local government); (iii) the polluter pays principle and *OneSteel* (state government); (iv) waste reduction and management and *Zero Waste SA* (state government); (v) local government approaches: act local, think global (local government); (vi) Murray-Darling catchment management (commonwealth, state and local government); and, (vii) *Waterproofing Northern Adelaide* (commonwealth, state and local government). A summary of each case study follows.

4.1 Case study 1: carbon pollution reduction scheme

Australia has been the worst emitter of greenhouse gases per capita in the world (Falk & Ryan 2007 224). Despite winning unique concessions during negotiation of the *Kyoto Protocol*, Australia refused to ratify it. However, shortly after the 2007 federal election the Labor government

[2] It should be acknowledged that since data collection the carbon pricing scheme proposed in the Carbon Pollution Reduction Scheme was passed in another form, commonly referred to as the "Carbon Tax".

signed the *Kyoto Protocol* and committed to meeting its obligations for greenhouse gas emissions through a market-based mechanism: a carbon pollution reduction scheme, an emissions trading scheme like that currently operating in the European Union (Kolk & Hoffmann 2007; Mehling & Haites 2009). In July 2008, the Department of Climate Change (2008b) released a green paper as part of the consultation process on emissions reduction schemes. At the end of that year, its white paper (Department of Climate Change 2008a) for the final design was released. The carbon pollution reduction scheme aims to reduce carbon emissions by 25% (of 2000 levels) by 2020. The caveat on this target is that Australia becomes 'a party to a comprehensive international agreement that is capable of stabilising atmospheric concentrations of greenhouse gases at around 450 parts per million of carbon dioxide equivalence or lower' (Department of Climate Change 2009, p.3).

The proposed Carbon Pollution Reduction scheme is an example of a cap and trade market-driven scheme with total emissions from industry capped and emissions units, tradeable certificates, issued and bought and sold as needed to cover excess emissions. In the first year it was proposed that carbon emissions be valued at $10 per tonne before becoming a market-linked price. In addition to the tradeable emissions units, there are reporting requirements on the Kyoto gasses: carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, perfluorocarbon, and hydrofluorocarbon, with the latter two as specified under legislation[3]. Furthermore this scheme proposes to introduce assistance and compensation schemes to emissions-intensive trade-exposed companies and fossil fuel-fired energy generators. The assistance and compensation involves the issuing of free emissions units for up to five years.

Criticism of the final design for the emissions scheme has been swift. Breusch (2009) points out that the scheme is extraordinarily complex, allows unlimited importation of carbon credits but prohibits exportation, and omitted agriculture from the scheme. Davidson (2009, p.19) states that the scheme 'has been exposed as a sham', not only weak but 'fraudulent'. Reaction from business has been predictable with threats of financial and job losses, delays or abandonment of infrastructure development, particularly in the mining industry (Arup & Morton 2009; Courier Mail 2009; Tasker 2009). In May 2009, the Labor government announced it would delay the introduction of the scheme owing to the global financial crisis (Taylor 2009). Bills associated with the Carbon Pollution Reduction Scheme were introduced into the House of Representatives in early February 2010 and into the Senate later that month. The scheme was defeated in Parliament as, post Copenhagen, enthusiasm has waned (Shanahan 2010).

[3] National Greenhouse and Energy Reporting Act 2007, Australia.

4.2 Case study 2: government rebate schemes

Government policy is now encouraging technologies supporting the efficient use of energy and other natural resources. Rebates lighten the costs associated with installation and purchase of solar hot water systems, and rainwater harvesting and use; an example of this is the federal government's policy on domestic water heating. There have been and still are currently significant rebates to encourage taking up solar water heating to decrease greenhouse gas emissions. Yet, despite these rebates the cost of this solar technology in Australia is still high and hence the uptake is minimal. There are also variations in the rebates across all three levels of government. Table 1 summarises the government rebates that are available in Australia. For local government an accurate summary is not available owing to the large number of local governments.

Table 1: summary of government rebates

	Federal	State							Local
		SA	NSW	VIC	QLD	WA	TAS	ACT NT	
Rainwater harvesting	✓	✓	✓	✓	✓	✓		✓	✓
Greywater harvesting	✓			✓		✓			
Solar energy	✓								✓
Solar hot water systems	✓	✓	✓	✓		✓		✓	✓
Insulation	✓								
Garden water efficiency		✓		✓		✓			
Household water efficiency		✓		✓		✓			✓
Household energy efficiency					✓				

Government rebate systems encourage the uptake of technologies that improve more efficient use of energy and water. However, it has been reported that rebates are ineffective, can create inefficiencies and undermine polluter-pays principles (Geyer-Allely & Zacarias-Farah 2003). Inefficiencies emerge when rebate systems encourage consumers to opt for the cheapest systems available rather than those which might provide

superior benefits in terms of reductions to greenhouse gas emissions although at a great cost (Warren 2007a). More recently evidence has emerged that rebates schemes too hastily developed and implemented can have unintended and serious consequences. The home insulation rebate scheme for example, has resulted in house fires and death by electrocution of installers (Berkovic 2010; Berkovic & Vasek 2010; Bita 2010; Hedley 2010).

4.3 Case study 3: the polluter pays principle and OneSteel

In 2004, the South Australian government launched the *Premier's Round Table on Sustainability*, whose primary goal was to examine ways in which the *State Strategic Plan* could be implemented in a sustainable way. While four principles emerged from this report including the polluter pays principle, evidence suggests that this principle applies at best selectively, especially where enforcement may jeopardise continued economic activity. Whyalla is a large heavy-industry based city on South Australia's Eyre Peninsula. One of the cornerstones of this industry (and the town's main employer) is OneSteel. OneSteel processes hematite iron ore sourced from nearby mines. The dry processing of the ore into pellets and the transporting of the ore results in red-dust emissions. This dust blankets nearby residences, commercial buildings and other facilities.

For years OneSteel and the State Government denied there was a problem, despite evidence to the contrary. The *Environmental Protection Authority* (EPA) established monitoring throughout the surrounding area and set emissions benchmarks. OneSteel's dust emissions regularly exceeded the benchmarks set by the EPA and world health standards. When the government moved to place more stringent environmental regulations on the company, the company threatened to leave.

The Department of Health investigated the issue of red dust emissions in Whyalla and noted that its residents suffer from more cases of lung cancer, chronic obstructive pulmonary disease, asthma, chronic hepatitis, and anaemia than other high dust towns such as Port Augusta or Port Pirie both in the Upper Spencer Gulf region along with Whyalla (Department of Health 2007, p.3). A careful reading of the report, however, shows that the study – while unable to find any direct link between dust emissions and the diseases also failed to rule the link out – highlighting that there was a 'biological plausibility' of the diseases being caused by iron-rich dust exposure (Department of Health 2007, p.4). The government applauded the report as dismissing any health concerns from the red-dust emissions. In March, 2008 it emerged that the South Australian government cabinet was aware of the report's major findings six months before the report's public release and used that delay to negotiate with OneSteel (Henderson 2008). The company avoided further tightening of environmental controls and while action has been taken to further reduce dust emissions, this polluter remains immune to the polluter pays principle through legislative

protection (per *Broken Hill Proprietary Company's Steel Works Indenture (Environmental Authorisation) Amendment Act (Broken Hill Proprietary Company's Steel Works Indenture (Environmental Authorisation) Amendment Act 2005)*).

4.4 Case study 4: waste reduction and management and Zero Waste SA

Zero Waste SA is a South Australian government initiative aiming to reduce and manage waste in households and businesses by eliminating waste to landfill. The emphasis is on recovering and recycling waste where possible, addressing environmental damage and climate change in terms of eliminating waste by applying the waste hierarchy, which ranks methods of waste management from least preferable (disposal) to highest (avoid). In addition it advocates for a nationally coordinated policy on waste management and reduction. Working with local councils, business and industry, Zero Waste SA supports projects that improve infrastructure, technology, waste management systems and subsequently, resource efficiency, recovery and recycling (Zerowaste SA 2008).

Currently, recycling, to which South Australia has a strong commitment, is a medium preference (Zerowaste SA 2008). However, through Zero Waste SA the South Australian government aims to improve waste management by adopting the more preferred models including reuse, reduce and avoid, and reduce waste by 25% by 2014. Current efforts in this state-wide waste management approach have resulted in a 15% decrease in waste going to landfill per capita. However, the notion of zero waste has been applied elsewhere, such as through *NOWaste* by 2010 in the Australian Capital Territory, without successfully achieving the zero waste to landfill target (Rauch & Newman 2008).

4.5 Case study 5: local government approaches "Act Local, Think Global"

Local governments or councils are now important in implementing State and federal government policy, despite not being recognised by the Australian constitution. Councils are variably proactive in terms of sustainability issues. A survey of council websites, selected at random, reveals much about how councils view sustainability.

In nearly all council website viewed in this project[4], sustainability information focuses on environmental issues. The City of Salisbury in Adelaide's northern suburbs has been active in implementing sustainability programs, including an award-winning wetlands

[4] A random selection of local government websites in South Australia – in all eight councils' websites were viewed: Salisbury, Adelaide, Onkaparinga, Burnside, Gawler, Campbelltown, Holdfast Bay, and Mitcham.

development, and a program being developed to harness methane emissions from Adelaide's now-closed main rubbish dump. A search of its website under "sustainability" returns results which include wetlands development, triple bottom line reporting, stormwater recycling, biodiversity, urban forests, water resources, and natural resources management. The Adelaide City Council website refers to reduction of its carbon footprint, public lighting, the *Carbon Neutral Council Action Plan*, solar panels, a bicycle action plan, and programs such as *CitySwitch* and *Adelaide Building Tuneups*. The latter is a joint initiative between the council and State government to identify, implement and measure energy and water efficiency in the central business district's commercial buildings. The Onkaparinga Council (in Adelaide's southern suburbs) focuses on water, energy, and climate change, while the Burnside Council promotes community gardening and open spaces. In contrast the Gawler Council (north of Adelaide) has no sustainability-related information on its website.

While local governments have become key players in implementing sustainability policies this devolution of responsibility is not always effective. McKay and Rauscher (2007) have shown that the City of Newcastle in New South Wales failed in its implementation of sustainability policy because the State and federal governments withdrew financial support and the entire policy was transformed into little more than land use policies (McKay & Rauscher 2007, p.74).

They note that the United Nations' Local Agenda 21, which advocates the devolution of sustainability implementation to the local government level, is primarily responsible for a withdrawal of federal and state governments from the national agenda, and does not outline how higher levels of government should resource local government in their sustainable development responsibilities. McKay and Rauscher (2007) feel that in Australia, without solid understandings between the various levels of government and appropriate resourcing, local governments will fail in their attempts to implement sustainability policies and practices. Only weak, watered-down versions of sustainable development, such as a narrow interpretation restructured to land use and natural resources management, will and have resulted.

4.6 Case study 6: Murray-Darling catchment management

The Murray-Darling basin is the major source of water for four Australian states: South Australia in the lower reaches, Queensland, News South Wales and Victoria all of whom have headwaters. Under the Australian constitution water infrastructure is a State jurisdiction. Each state has separate water usage policies including irrigation, but only recently have the states moved to ensure environmental flows. The result is that water usage in the three headwater states directly affects the quality and usage of water in the lower reaches. The issue has become critical in recent years

with significant drought affecting much of Australia. Flows in the Murray-Darling system are very low, the lower lakes in South Australia are drying and dying, and irrigators have less than 5% of normal allocations.

A number of management systems and structures have been developed and put into place over the last few decades, the most recent the Murray-Darling Basin Authority (Murray-Darling Basin Authority 2009). This Authority has developed a Basin Plan where 'key environmental assets and ecosystem functions of water resources [will be] protected. It will also identify risks to the condition or continued availability of Basin water resources and provide strategies for managing those risks' (Murray-Darling Basin Authority 2009, p.5). In a departure from traditional water planning, the Basin Authority States will be required to have new water plans approved by the relevant Commonwealth Minister (Murray-Darling Basin Authority 2009, p.15).

4.7 Case study 7: Waterproofing Northern Adelaide

The *Water Smart Australia* program and the *Waterproofing Northern Adelaide* plan are examples of integrating sustainability policies across all levels of government. *Water Smart Australia* is an initiative of the federal government which has set aside $1.6 billion to ensure efficient use of current water supplies, and to develop smart water technologies and practices. The aim is to manage Australia's water sustainably and the program relates to the *National Water Initiative*, a blueprint for a cohesive national approach to water management. While the *National Water Commission* oversees the *National Water Initiative,* the *Water Smart Australia* program is administered through the *Department of the Environment, Water, Heritage and the Arts*.

The original *National Water Initiative* is an example of co-operative legislation in which the federal and state governments have agreed to the plan and enacted mirroring legislation. In South Australia, responsibility for the development and implementation of the *National Water Initiative* has devolved to the nine regional natural resources management boards. These boards are responsible for developing region-specific concept statements and plans which integrate with the state and national principles of ecologically sustainable development, natural resources management plans, and strategic plans.

The *Waterproofing Northern Adelaide* plan is a joint initiative of the Salisbury, Playford and Tea Tree Gully councils. Over $90 million from the Australian, South Australian and these three local governments and the private sector, will be used to: capture and cleanse stormwater through urban wetlands, aquifer storage and recovery, and distribute this water for irrigation of public spaces and industrial use; trial the development of aquifer storage, treatment and recovery under the CSIRO's direction and determine the best storage and recovery practices to treat water to drinking water quality standards; trial the use of domestic rainwater tanks to harvest

water for public reuse; and hydrological modelling to predict the annual average run-off from regional catchments and improve regional water management (Department of the Environment Water Heritage and the Arts 2009).

5. Case study analysis

This section provides an analysis of the seven case studies against the six distinctive key elements identified above.

5.1 Federalism

Federalism in the context of this research is concerned with the funding arrangements and the integration and cooperation between all three levels of government. In the case studies, examples of both effective and ineffective federalism were identified, as well as cases where federalism was not an issue.

5.1.1 Cooperation

Case study 2 highlights problems with government rebates schemes owing to federalism when considering the range of rebates available and the jurisdiction responsible for its conception and administration. It emerged that there was little or no vertical integration of the various local, state and federal rebates systems across any Australian state or territory. There was, however, a low level of cooperation with information on state and federal rebates on local government websites, and federal rebate information on state government websites. Case study 5 highlights the issue of funding arrangements between levels of government. Case studies 6 and 7 also provide good contrasting examples of cooperation between different levels of government, as discussed further below.

5.1.2 State rivalries

Case study 6 shows federalism at its most ineffective with bitter fighting between States, or between the States and the Commonwealth. With the Murray-Darling system being so important in Australia, the long-term struggle to manage such systems effectively is contributing to the river's environmental and social degradation. The economic impact is that irrigators are unable to rely on the federal government's management of the system and equitable allocation of crucial water resources. In contrast case study 7 highlights federalism at its most effective, specifically in a part of Adelaide where local, state and federal governments are cooperating to improve water management, capture and recycling. The significant difference between these case studies is the number of State governments involved in the project, and State rivalry is a key feature of Australia's political landscape. The States inability or unwillingness to compromise or relinquish duties and obligations undermines this attempt

at cooperative federalism. The absence of State rivalries is perhaps the main reason for the success of the water proofing strategies in northern Adelaide.

5.2 Sustainability notion

5.2.1 Vagueness of sustainability notion

In every case study it emerged that sustainability is poorly defined. This is generally consistent with the view presented in the literature on sustainability, and in the face of a national statement of ecologically sustainable development which purports to be the basis of government policy. Evidence suggests that government has captured the sustainability debate whilst showing no real understanding for the concept, and rarely releases a definitive statement of what it means or how to implement it effectively. Definitions of sustainability in policy or associated legislation is at best patchy. For example, in South Australia the *Climate Change and Greenhouse Emissions Act (Climate Change and Greenhouse Emissions Act 2007)* does not provide a definition of ecologically sustainable development, whereas Victoria's *Commissioner for Environmental Sustainability Act (Commissioner for Environmental Sustainability Act 2003)* (s.4) provides an extensive definition of the concept.

5.2.2 Disproportionality between the pillars

A reliance on traditional market-driven, economic-centred approaches to government resulted in a chronic disproportionality between the sustainability pillars. All cases show this imbalance. Case study 1 shows a strong leaning towards a single pillar – the environment – but this is contingent on environmental improvements (in this case carbon pollution reduction) showing economic benefits. Case study 2 sees government rebates branded as part of the overall sustainability policy where the benefits are skewed towards the environment, yet the social impact of these rebates is ignored. For example, rebates for rainwater tanks have been linked to the spread of dengue fever in Australia's eastern states (Cresswell 2009; Peter 2009). Case study 3 highlights the importance of the economic pillar, where the basic polluter pays principle is ignored in favour of economic gain. Case study 5 highlights the transformation of a sustainability policy into a narrow field, namely land use and natural resources management. Case study 6 sees the Murray-Darling river system management focusing first on economics then on the environment. Ignoring the social aspects is highlighted in a report from the Human Rights Commission (Aboriginal and Torres Strait Islander Social Justice Commissioner 2008), noting the lack of representation for indigenous peoples. Finally, case study 7, while documenting one of the more effective policies, emphasizes the environmental and economics pillars over the social aspects. In every case study the social pillar is ignored or not seen as relevant, in contravention of the sustainability notion where a proportional balance between all three pillars is required.

5.3 Political considerations

5.3.1 Politics of fear

Political considerations must be incorporated into any analysis and the politics of fear is evident in three case studies, particularly higher levels of government. In case study 1 the carbon pollution reduction scheme favours emitters where lobbying resulted in generous exemptions. Threats to close sites in Australia on the introduction of the scheme (without compensation) erupted during government consultations. Case study 3 revealed some of the strongest politics of fear from both the government and OneSteel. Efforts to impose stronger environmental regulations on the company resulted in threats of closure (and loss of the primary employment in a major regional centre). The government moved legislatively to ensure this did not happen. The creation of additional jobs and/or the loss of existing jobs is the key card used in debates around development and environmental regulation. Case study 6 shows how the politics of fear works between governments on equal or disparate levels. State governments accuse the federal government of trying to usurp their power and the threat of losing industries and jobs justify arguments that irrigators should have water at the expense of environmental flows.

5.3.2 Bureaucratic processes and party politics

Bureaucratic processes can affect the effectiveness of sustainability policies and processes, for example case study 2 in the context of rebate schemes. Changes to the original schemes which meant the imposition of means testing, such as rebates associated with the installation of solar panels, resulted in declining uptake or the selection of less efficient and more expensive panels. Less renewable energy was generated as a result, thus reducing the rebate program's effectiveness (Kerr & Hohenboken 2008). Delays can occur in rebate systems, with waiting times for receiving rebates extending from 6–7 weeks to 6 months (Kerr 2009). Finally, rebate systems or certificate systems such as renewable energy certificates – mandatory for solar-based household systems – can be subject to dishonest behaviour, with reports of households accepting small discounts and suppliers taking the certificates (worth $900) and selling them later at higher rates (Warren 2007b).

Partly politics impede the development and implementation of sustainability policy. Case study 1 illustrates that the carbon pollution reduction scheme is subject to changing policy positions between Australia's two major parties. The opposition parties contend that the Labor Party scheme is inadequate but they provide no alternative position. This theme is taken up in case study 6 where party-dominated state and federal governments engage in disputes increasingly on ideological grounds.

5.4 Emerging elements

Discussed above were six distinct elements which impact on the effectiveness of sustainability policy implementation. In addition, through compiling the seven case studies presented here, two additional emerging elements were identified: power imbalances and the size, scale and/or scope of the program.

5.4.1 Emergent element 1: power imbalances

Power imbalances can exist between institutions and people at different levels of government and in different states. Case study 1 highlighted the federal government's unilateral approach to carbon pollution reduction, with little or no direct consultation or integration with other levels of government. Case study 2 indicated the potential impact of industrial monopolies. Case study 3 demonstrated convincingly that power imbalances concerning the *Red Dust Action Group's* activities were ignored by the state government and OneSteel. The power imbalances existing between levels of government – especially between local and state or federal – were revealed in case study 5. Case study 6 revealed the best evidence of power imbalances not only between governments but also between communities and associated irrigators and governments and the new catchment management authority.

5.4.2 Emergent element 2: size, scale and scope of the program

The size, scale or scope of the program/activities of sustainability policy can influence implementation. For example, case study 4 (Zero Waste SA) is a relatively small-scale project with a narrow focus. The resources of this State government program are only a small portion of government revenue and expenditure and the program's goals are quite modest – the reduction or elimination of unnecessary waste. The impact of size, scale and scope are illustrated by comparing case studies 6 and 7 both of which focus on water-related issues. In case study 6, the Murray-Darling catchment system covers a large area crossing several states and impacting on millions of people. In comparison case study 7 (Waterproofing Northern Adelaide) has a much smaller geographical area and a more finite life, once specified goals have been reached, rather than as an ongoing water catchment management program.

6. Impact of elements on implementation of sustainability policy

It is evident from the case studies that government sustainability policy is more often of low effectiveness and that a complex web of elements influences this situation. Table 2 summarises the elements and their influence on the effectiveness of policy implementation.

Table 2: summary of case study analysis

Case Study	Level(s) of Government involved	Element 1 Federalism		Element 2 Sustainability notion		Element 3 Political considerations		Emerging elements		Effectiveness of policy implementation
		Sub-element 1 Federalism working well (ie cooperation between levels of government)?	Sub-element 2 State rivalries at play?	Sub-element 1 Vagueness of sustainability notion	Sub-element 2 Imbalance between pillars	Sub-element 1 Politics of Fear at play	Sub-element 2 Party politics and/or bureaucracy	Sub-element 1 Power imbalances	Sub-element 2 Size, scale or scope of program	
	(federal, state or local)	(yes/no)	(yes/no) (no of states)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(large or small)	(low, medium or high)
1	Commonwealth	n/a	n/a	Yes	Yes	Yes	Yes (party politics)	Yes	Large	**Low**
2	Commonwealth, states and local but involvement not integrated	No	No (6 states but not integrated)	Yes	Yes	No	Yes (both)	Yes	Large to small	**Low**
3	State	n/a	No (1 state)	Yes	Yes	Yes	Yes (party politics)	Yes	Large	**Low****
4	State	n/a	No (1 state)	Yes	Yes	No	No	No	Small	**High**
5	Local	No*	n/a	Yes	Yes	No	No	No	Small	**Medium**
6	Commonwealth and states – integrated involvement	No	Yes (4 states)	Yes	Yes	Yes	Yes (both)	Yes	Large	**Low**
7	Commonwealth, state and local - integrated involvement	Yes	No (1 state)	Yes	Yes	No	No	No	Large to small	**High**

* Because commonly programs are run at Local level for 'sustainable development' responsibilities that are devolving from State and Commonwealth levels, but without provision for requisite support from the higher levels of government.

** While the polluter pays principle has been overturned, OneSteel has opened its Project Magnet in order to deal with it Whyalla plant's ongoing dust issues. Since this paper focuses on government sustainability policy, the actions of OneSteel, whilst welcomed and applauded, do not affect the assessment.

6.1 Proposed relationships

The analysis of the seven case studies enables three key relationships amongst the elements and 'effectiveness of implementation' to be identified/proposed: the first between using the politics of fear and power imbalances; the second including the federalism element (i.e. cooperation between different levels of government), power imbalances and politics of fear; and the third between the size, scale or scope of a program and its effectiveness.

6.1.1 Proposed key relationship 1: politics of fear and power imbalances

The politics of fear often manifests itself with a focus on jobs – their loss or creation. However, the politics of fear was not evident in all case studies. Where power imbalances were most strongly indicated, case studies 1, 3, and 6, governments and larger companies used the politics of

fear to great effect. In case studies 1 and 3, for example, companies which are major employers have used the threat of job losses or closure of operations in response to a carbon pollution reduction scheme or tighter environmental controls, to secure compensation or dispensation respectively. In case study 6, politics of fear serves as a reaction to state concerns about the federal government usurping their constitutional jurisdiction. Here, the effect is to derail effective implementation of catchment management, to the detriment of those relying on water from the catchment system. It is proposed that where power imbalances exist and where the imbalances are significant, the politics of fear increases and the effectiveness of sustainability policy implementation decreases (see Figure 1).

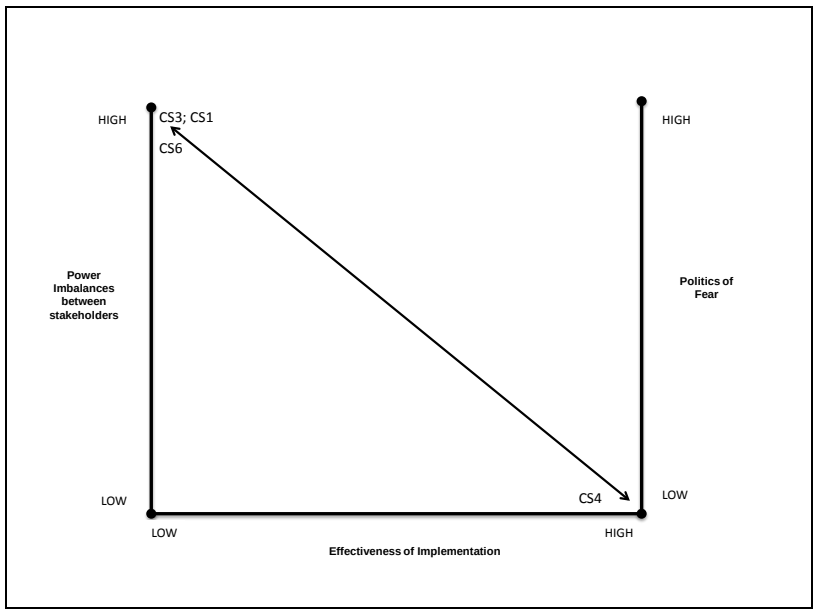


Figure 1: Proposed relationship: power imbalances and the politics of fear

6.1.2 Proposed key relationship 2: federalism, power imbalances, and the politics of fear

In the cases where federalism is involved a somewhat complex relationship between increasing "cooperative federalism" and effectiveness of implementation emerges. The number of states involved impacts on the cooperative federalism element which in turn impacts on effectiveness of implementation. However, there are also inter-relationships with power imbalances (whether real or perceived) between the states (not between the different tiers) and the politics of fear element.

The proposed integrated relationship between these elements is illustrated in Figure 2. The "not applicable" cooperative federalism/"high" effectiveness point in Figure 2 is represented by Zero Waste SA (case study 4); the "high" cooperative federalism/"high" effectiveness by Waterproofing Northern Adelaide (case study 7). The point of "low" cooperative federalism and "low" effectiveness is the Murray-Darling catchment management (case study 6). With increasing adverse cooperative federalism comes a reduction in effectiveness – where the number of states involved increases – and this coincides with increasing power imbalances between the states and more politics of fear (in line with Figure 1). When the number of states declines, cooperative federalism is more successful, power imbalances between states and the use of politics of fear declines, and effectiveness is restored.

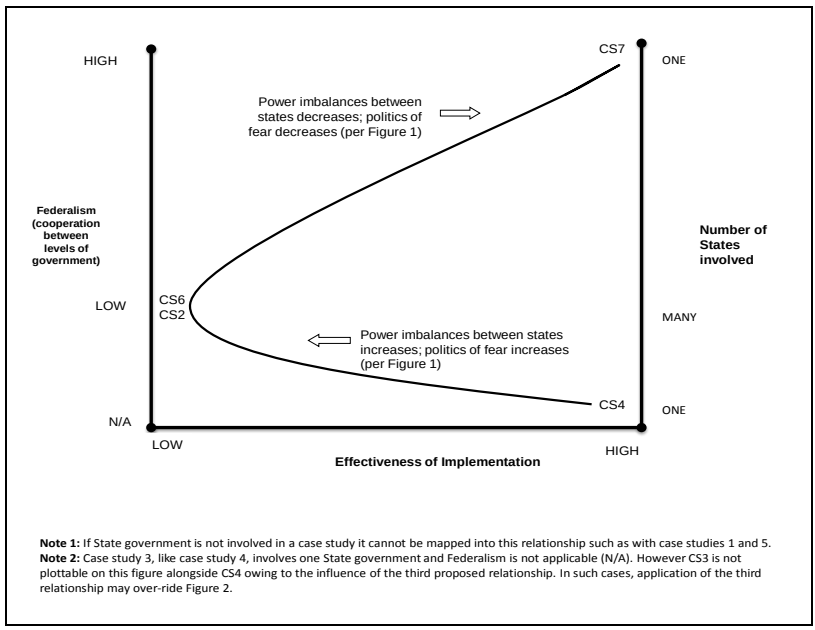


Figure 2: Proposed integrated relationship for cases involving federalism

6.1.3 proposed key relationship 3: increasing size, scale and scope decreases potential effectiveness

It is evident in these case studies that the program's size, scale or scope influences the policy's implementation. Two case studies demonstrated high implementation effectiveness, despite the existence of significant pillar imbalance and a vagueness of the sustainability notion. These are

assessed as high since case study 4 is a relatively small-scale project with a narrowly defined scope and lacking any interaction with other levels of government (except in a funding relationship). The program's ability to focus on the target results in creative approaches which can reduce waste. Case study 7 describes an effective integration and cooperation between all three levels of government and absence of other state governments (see case study 6) may influence the assessment to some extent. Having a common goal, lacking state rivalries and operating within a well documented and cooperative funding model, allows the policy to be effectively implemented. Conversely, case studies 1, 2, 3 and 6 clearly demonstrate that larger size, scale and scope decrease effectiveness (see Figure 3).

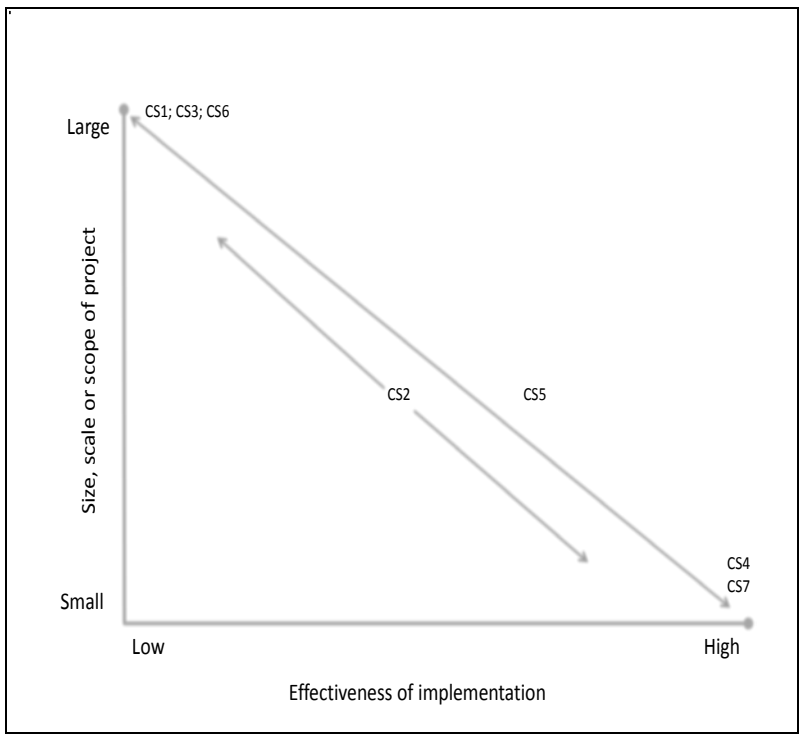


Figure 3: Relationship between size, scale and scope and effectiveness of implementation

7. Conclusion and recommendations

The case studies discussed here represent past and current implementation of government sustainability policy, with both high and low effectiveness. Several key conclusions can be drawn. Firstly, politics, whether the result of political party rivalry or the politics of fear, is evident in the top two tiers of government and particularly in the Carbon Pollution Reduction Scheme and the OneSteel cases. Secondly, Australia's federal structure makes implementation of sustainability policies across all levels of government problematic. The problems of federalism are also reflected in the state rivalries undermining the effective management of the Murray-Darling basin. However, cooperative federalism can work across all tiers of government as demonstrated by the Waterproofing Northern Adelaide project. It is concluded that the overall effectiveness of this policy (program) lies in it being enacted within a single state. Whilst small-scale, tightly focused programs are most effective such as Zero Waste SA, pillar disproportionality is endemic – no example has a good representation of all three pillars with the social aspects being sacrificed for environmental and economic reasons. Also the environmental pillar is only supported where an economic benefit can be achieved – there is no initiative or policy on its own merits or which attempts to balance pillars proportionally.

The three key relationships proposed here together could help policy makers determine and adjust the relevant elements to achieve better implementation of Government sustainability policy in Australia. However, this preliminary research would undoubtedly benefit from further investigation, particularly more local and international case studies. Some of the elements warrant further research on how to measure them more accurately, for example politics of fear and power imbalances. The power imbalances element is further complicated by visible versus invisible power imbalances – better understanding of invisible power imbalances, their impact on visible ones, and how to measure them is important. Such further research would provide more credibility to the relationships identified and/or update the relationships with any additional relevant elements.

Once fully developed, these key relationships may act as a powerful gauge/guide/tool for sustainability policy makers. For example, it could help bring the different levels of government together to ensure more effective federalism. It may also guide how to achieve the requisite stakeholder empowerment that will minimise the use of "politics of fear" tactics and increase the effectiveness of implementation of government sustainability policy. Such a tool could prove useful to countries having similar systems of governance to Australia. It is vital that sustainability policy moves from rhetoric to effective implementation.

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