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Environmental policy and local government in Australia

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Environmental policy and local government in Australia

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Local governments (LGs) have provided a range of essential services. Initially this did not include specific consideration of the bio-physical environment, however, their role in environmental management has become more prominent since the 1980s. This article argues that LGs have an increasingly important role in environmental and sustainability implementation, and, through an international context, identifies the variety of policy responses LGs in Australia have adopted to engage with environmental and sustainability issues. The literature based review demonstrates the richness of this engagement and that while there is information about the range of engagement, there is little to indicate the effectiveness of these policies. This gap points to some key directions for future research.

Keywords: environment; sustainable development; policy; local government

Introduction

Since 1900 the Australian Constitution has formed the basis of current government in Australia, yet it does not cover areas of current community and political concern. One omission is that there is no recognition of the role of local government (LG); following the British model of government, LG in Australia was established as an arm of the regional, or State, governments. Another is the lack of a role for the Commonwealth in environmental awareness and management. The Australian Constitution makes no mention of “the environment”, a consequence of when the States were passing their legislation; at the end of the nineteenth century there was no formal recognition that the environment was important. However, since the mid twentieth century both LG and environmental issues have been important aspects of life in Australia, and elsewhere.

Realisation of the environmental problems that were developing in the late 1960s pushed the international community into the establishment of the United Nations Environment Programme in 1972 (Elliott 1998). In the following few years Australia’s national and State governments had also established agencies and programs to manage environmental degradation, but these provided no role for LG. The complexities and overlap arising from the levels of government led the Australian and State governments to outline a set of principles for governance of the environment through the 1992 Inter-Governmental Agreement on the Environment (Department of the Environment, Water Heritage and the Arts 2007). This clarified that the Australian Government had responsibility for international matters (such as implementation of treaties) and those that were of direct
Commonwealth relevance (e.g. Commonwealth land). Each of the States (and Territories\(^1\)) has prime responsibility for all environment and natural resource management in its territory, and an “interest” in international matters. Importantly LG was also recognised as playing a role, yet with virtually no formal powers; each LG is responsible for management of the environment within its boundaries, but in compliance with the relevant state and Australian laws and policies.

A century after Australia’s Federation the contribution that LG makes to environmental management has been acknowledged, however, the other levels of government continue to hold the majority of relevant powers. Yet this has not prevented LGs from taking a major part in environmental and sustainability activity. Without formal power to legislate about the environment, such as with regard to environmental pollution, it may seem easy to dismiss LG’s ability to engage in substantive environmental management. However, as I will demonstrate LGs have developed both the will and ability to engage in a broad range of critical environmental policy. As Wild River (2006a, n.p.) notes:

There are good reasons for focusing national attention on local government. Every environmental issue is a local environmental issue. . . . Local government is the sphere of government that is closest to the people and environment. Despite being the smallest and poorest of Australia’s three government spheres, local government environmental spending far outweighs that of the others. Local governments set many strategic, long-term environmental policies, especially in the realm of land use planning. They also take small decisions and actions each day that cumulatively amount to shifts in regional environment and heritage values.

We can see that LGs have an increasingly important role in environmental and sustainability implementation. To facilitate environmental policy in Australia, the question we need to ask is whether this role has been taken up by LGs in Australia; and if not what have been the barriers. Investigating this will provide some substance to the points of Wild River (2006a), above (but will not attempt to assess the anticipated shifts in values she proposes).

Using a literature based approach, the following sections provide a background into the context for LG’s involvement in environmental policy and an outline of the extent to which environmental work has been absorbed into LGs in Australia. Presentation of the range of tools and activities that LGs are currently engaged with provides the data to show that LG is a major player in environmental policy, and raises questions about the effectiveness of this role.

LG’s evolving role in environmental policy

Many see that LG has the ability to affect culture change within its organisations and communities (Strengers 2004), but the role that LGs play in environmental management and policy has been specifically articulated by Bulkeley (2000). The context for this role has come from the argument of academics and others that it is only at the local scale that sustainability can be enacted and maintained. International support for this position has come from principally following the United Nations Conference on Environment and Development in Rio de Janeiro in 1992; through Chapter 28 of Agenda 21 and the formation of organisations such as International Council for Local Environmental Initiatives (ICLIEI). While Doyle and Kellow (1995, p. 178) may argue that generally much local environmental policy has been generated by conflict between LG and local residents’ action groups, there is evidence that LGs are increasingly involved in environmental policy (see examples related to climate, waste management), both in Australia and internationally (for example Dana 2000, Woolf and Sommer 2004, McSwain 2005). Occasionally this
Involvement is at odds with the plans of other levels of government. As Holden and Jacobson (2006) report in the case of the Philippines concern over potential environmental impacts has led to opposition to mining by some LGs, and “this opposition has led to the withholding of consent to mining projects by local governments and, in some cases, the implementation of moratoriums banning mining” (p. 188).

In Australia LGs exist as an element of state government, by virtue of the respective LG acts (Painter 1993, Keen et al. 1994). Traditionally LGs were involved in providing basic services (rates, roads and rubbish), but as Painter (1993) points out, the ability of LGs to collect certain taxes and rates, create by-laws, choose the level of various services to provide, and their directly elected status enables them to be more ambitious (see also Department of Planning and Community Development 2008). Similar evolution has been observed by Pini et al. (2007) and, with reform of the states’ LG acts, LGs have broader powers including responsibility for economic growth, community development, and environmental management (see also Bulkeley 2000). They are required to comply with state law and commonwealth law, but now have flexibility to become involved in most areas of community interest, including environment and sustainable development. In this context “the trend within LG in Australia appears to be one of gradual uptake of new ideas about environmental policy” (Bulkeley 2000, p. 290).

The inclusion of environmental matters, and other social aspects, is indicated by the range of responsibilities that are ascribed to Australian LGs at the beginning of the twenty-first century:

- infrastructure and property services, including local roads, bridges, footpaths, drainage, waste collection and management;
- provision of recreation facilities, such as parks, sports fields and stadiums, golf courses, swimming pools, sport centres, halls, camping grounds and caravan parks;
- health services such as water and food inspection, immunisation services, toilet facilities, noise control and meat inspection and animal control;
- community services, such as child care, aged care and accommodation, community care and welfare services;
- building services, including inspections, licensing, certification and enforcement;
- planning and development approval;
- administration of facilities, such as airports and aerodromes, ports and marinas, cemeteries, parking facilities and street parking;
- cultural facilities and services, such as libraries, art galleries and museums;
- water and sewerage services in some states;
- other services, such as abattoirs, sale-yards and group purchasing schemes (Australian Local Government Association (ALGA) n.d.a).

Since constitutional responsibility for LG lies with the state and territory governments, the roles and responsibilities of LGs differ from state to state. As a result the engagement of LGs with specific environmental matters varies (see Figure 1 for some examples of this diversity).

Often there are clear reasons for a municipality’s interest in an environmental area; for example, Municipal Association of Victoria (MAV) (n.d.a) notes that many LGs share responsibility for management of the coastline and are consequently frequently involved in the promotion of environmental policies associated with the coast. Yet caution about LG’s role has been sounded by several policy researchers (Keen et al. 1994, Whittaker 1997, Crowley 1998). This led Bulkeley (2000, p. 290) to conclude that “the picture that
New South Wales (Source LG&SA, NSW 2009)
In relation to both private and public land Local Government has a range of responsibilities regarding natural resource management, including:
- strategic planning
- development control of nearly all activities and works on freehold land and crown land
- enforcement powers for development consent conditions, waste management
- administrative responsibility for state agency coordination
- storm-water management and control; sewerage and drainage works, and flood control
- pest, plant and animal risk control measures
- influence over land clearance patterns
- management of local open space to restore remnant vegetation and recreate habitat
- primary advocate for and coordinator of local community groups and interests

Specifically, environmental management is an increasingly a core function, covering:
- dedicated environmental improvement programs (eg. stormwater improvement, waste education, biodiversity protection)
- ESD/Sustainability/LA21
- State of the Environment Reporting
- stormwater
- waste management/recycling
- noise control
- hazardous materials and contaminated sites

Queensland (Source LGAQ 2009)
Local councils have responsibilities under the Environmental Protection Act (EPAct) and their range of responsibilities include:
- public health (including stormwater and sewer)
- natural environment
- climate change
- waste and waste management
- pollution (including smoke emissions and noise)
- recycling
- pest management
- natural resource management
- stock routes
- vegetation
- coastal management

South Australia (Source LGASA n.d.)
Councils must, by legislation provide:
- planning and development services
- some environmental health services
- fire prevention

Councils may choose to provide other environmental services including:
- control of pest animals and plants
- roads (local roads - that is, not national highways or state arterial roads)
- stormwater drainage
- parks and gardens
- traffic management
- reserves and picnic areas
- recreation facilities and centres
- ovals
- rubbish collection and disposal
- recycling
- environmental management
- wetlands
- coast-are and dunecare projects
- local area water catchment plans
- landcare programs
- dry zones
- cycling tracks
- septic tank effluent disposal schemes

Tasmania (Source LGAT 2007)
Councils also have a responsibility to look after land which they own or manage by ensuring that activities are not only sustainable and take into account local conditions, but also comply with relevant legislation. Priorities include:
- environmental legislation
- air and noise quality
- waste management
- natural resource management
- climate change

Victoria (Sources DPCD 2008, MAV 2009)
Within their boundaries Local Governments have responsible for:
- planning and building
- roads and parking
- health services

Environmental matters which they are involved with include:
- coastal management
- energy
- climate change
- forestry
- green purchasing
- natural resource management
- environmental sustainability
- waste management & resource efficiency
- water resource management

Figure 1. Diversity of responsibility for environmental matters across Australia’s LGs.
emerges from reviews of LG environmental management in the 1990s is that while this sleeping giant may, in some places and in some councils, be beginning to stir, many LGs remain focused on a traditional and narrow view of their environmental role”.

Yet even where a LG is broadening its scope of activities, there is a range of mitigating factors. As Pini et al. (2007) note the rise of neo-liberalism within Australian political institutions and associated demands for economic efficiency and outcomes, coupled with the limited capacity of LGs to raise revenue, limit LGs’ ability to undertake more than traditional activities. Amalgamations of LGs, reducing the number across Australia from 1067 in 1910 to around 630 by 2000, (Wild River 2003) indicate the focus on economic rationalisation. In addition any intentions by LGs to take on environmental management, or the broader concepts of sustainability, face particular barriers including: scarcity of resources; limited information and staff expertise; fear of change; variable support from State and Federal governments; unclear statutory powers; poor consultation with stakeholders; low level of political will (Keen and Mercer 1993, Wild River 2003). These barriers have been identified mainly in connection with the activities of urban LGs. However, the case study of Pini et al. (2007) indicates that “that there may be little difference in the types of problems faced by rural and metropolitan municipalities either nationally or internationally” (p. 171). A decade earlier Binning and Young (1999) had suggested LGs needed to gain greater access to private investment funds to alleviate some of the problems of gaining public finance especially in relation to conservation of native vegetation. Despite this report, financial stringency continues to be a concern.

In spite of these barriers there is evidence that LGs are involved in a wide range of environmental, natural resource and sustainability related activity. Investigation of LG activity, using case studies from across Australia, shows that the scope of LG environmental work:

- extends beyond its statutory requirements;
- is novel and creative;
- endures by balancing ecological, social and economic values;
- demonstrates different patterns depending on its planning, management or protection focus; and
- usually involves environmental strategists with long-term, passionate commitments to local environmental values. Wild River (2006b, p. 719).

The extent of activity is as broad as the scope of “environment” itself, as I will demonstrate. But the important question is how effective the activity has been, and how effectiveness could be improved. The research of Wild River (2006b) indicates that effectiveness is connected with clear communication of social and economic benefits associated with ecological gains. Also, these “local environmental gains usually rely on the passionate and long-term leadership efforts of environmental strategists who may be placed in any role within a LG” (p. 730). More broadly, the drivers for this activity are, as summarised by MAV (2008, p. 4), “community expectations of council involvement, and an understanding of the need for action within the organisation”.

LG’s contribution to environmental activities in Australia

The United Nations developed a system for economic and environmental accounting that, for LG identifies four relevant areas; environmental protection; natural resources management; activities associated with environmental damage; environmental balance sheet (change in the quantity and quality of environmental assets) (Heycox et al. 1997). This
system proved useful for categorising environmental transactions and identifying their specific expenditures in a pilot study of LG environmental expenditure by Heycox et al. (1997). The results from the twelve responding councils demonstrated that, even a few years after Agenda 21 was released, these Australian LGs collectively spent $A231.1M on environmental activities and earned $A259.6M. Similarly, across the local sector Osborn (1997) found that over the thirty years up to 1995 there was a threefold increase in LG spending on sanitation and services for protection of environment – including household waste, industrial waste, sewerage, stormwater drainage, environmental protection programs.

Around the same time surveys of the Australian Bureau of Statistics (ABS) indicated that Australian LGs were spending in the order of $A1600M on environmental protection, with a similar amount of revenue (ABS 2004). Over a 5 year period both expenditure and revenue grew (Figure 2).

Yet, as Wild River (2006a) points out, in 2002–2003 environmental expenditure by LGs of $A4.1 billion accounted for more than half of total environmental spending across Australia’s three spheres of government. This high relative importance given to spending on environmental matters by LGs is also shown by the budget priority given to environmental expenditure; which accounted for more than a quarter of the total annual expenditure of LGs, but only 6% of state government expenditure, and 1% of Australian Government expenditure.

However, the capacity of LGs to engage in environmental activities is variable. Wild River (2006a) notes that a survey of councils by the ALGA indicates that less than a third of LGs considered that they had sufficient capacity to take up natural resource management initiatives. Nonetheless LGs, within the same State, have a reasonably equivalent opportunity to influence environmental outcomes through land-use planning. State-wide planning Acts provide a potential role for LGs in environmental planning, but they may not have the capacity to refuse developments or place strong environmental conditions on approvals (Wild River 2006a). LGs also have a range of approaches available to include local environmental initiatives into their operational and strategic activities; for example see Figure 3. In this context Whittaker et al. (2004) comment that the State of Victoria is implementing a network governance approach to natural resource management as a significant component of sustainability through the complex task of aligning of

![Figure 2. Environment protection transactions.](source: After ABS (2004).)
Further involvement of LGs comes from their direct activities, such as providing infrastructure that has environmental attributes, providing environmental protection through management of water discharges and solid waste, and encouraging their communities to go “beyond compliance” with current legislation, and to become leaders in environmental management (Wild River 2006a). To achieve these goals LGs use various implementation mechanisms including incentives and local laws (Figure 4).

Increasingly LGs have been engaging directly with environmental policy and appointing staff for this purpose. However, summarising a 2008 survey of Victorian councils MAV (2008, p. 4) noted:

While councils are becoming more engaged in a wide range of environmental issues almost all (93%) believe there are factors that limit their ability to undertake, or be involved in, environmental initiatives. The two most common constraints to progressing environmental initiatives in councils are limited resources and limited staff.

### Environmental activities of LGs

The previous section hinted at the variety of areas in which LGs are involved in relation to environmental issues. We can look at these in more detail to gain an appreciation of the extent to which environmental management has come to a key aspect of “core business”.

<table>
<thead>
<tr>
<th>Integrated local area planning</th>
<th>. Buying recycled products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Including sustainability criteria in competitive tendering</td>
<td>. Environmental Protection and Biodiversity and Conservation Act 1999</td>
</tr>
<tr>
<td>Adopting cleaner production</td>
<td>. Integrated catchment management</td>
</tr>
<tr>
<td>Environmental management systems</td>
<td>. Natural resource management</td>
</tr>
<tr>
<td>Protecting local heritage places</td>
<td></td>
</tr>
<tr>
<td>Sustainable regional development</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3. Resources for integrating local environmental initiatives.  

<table>
<thead>
<tr>
<th>Incentives available –</th>
<th>Local laws used relating to –</th>
</tr>
</thead>
<tbody>
<tr>
<td>. environmental management agreements</td>
<td>. kerbside recycling/rubbish*</td>
</tr>
<tr>
<td>. equipment loans</td>
<td>. charity recycling</td>
</tr>
<tr>
<td>. subsidised equipment programs</td>
<td>. hard waste</td>
</tr>
<tr>
<td>. environmental grants to communities*</td>
<td>. specific litter management (e.g. cigarettes)</td>
</tr>
<tr>
<td>. resource efficiency giveaways*</td>
<td>. building sites/development, sediment control and waste management*</td>
</tr>
<tr>
<td></td>
<td>. fire prevention (air quality)*</td>
</tr>
<tr>
<td></td>
<td>. land clearing/vegetation removal</td>
</tr>
<tr>
<td>. subsidised or free training*</td>
<td>. tree preservation</td>
</tr>
<tr>
<td>. revolving funds</td>
<td>. reserve/park protection*</td>
</tr>
<tr>
<td>. developer contributions*</td>
<td>. water management (stormwater)</td>
</tr>
<tr>
<td>. rate rebates</td>
<td>. wetlands management (constructed)</td>
</tr>
<tr>
<td>. differential rates</td>
<td>. wetlands management (natural)</td>
</tr>
<tr>
<td>. environmental levies</td>
<td>. pest plant management (nuisance)</td>
</tr>
<tr>
<td></td>
<td>. pest animal management</td>
</tr>
</tbody>
</table>

* most frequently used

Figure 4. Mechanisms for delivering environmental outcomes.  
Connecting planning and conservation issues

Integration of conservation planning into local planning and policies has been occurring over a very long period. The control of night-time traffic to reduce noise in Rome at the time of Nero, and requiring noxious industries to be well separated from residential areas are early examples of planning controls for environmental benefits (Thomas and Elliott 2005). More recently Anon (1999) reports the use of land use management practices to protect wetlands. Currently, LGs in Australia enjoy a range of environmental planning opportunities available through planning legislation in Australia (Conacher and Conacher 2000, Wild River 2003). In Victoria, through the state planning legislation LGs have the use of “municipal strategic statements”, “overlays” and local policies to support environmental initiatives. The opportunity to use these mechanisms has been used by more than half of Victoria’s 72 LGs to clearly define environmental management in municipal strategies and plans (MAV 2008).

While these examples relate to the identification of environmental goals that may be directly supported by the powers of LGs, the same planning powers when focused on development and economic issues can have unexpected effects (for example Salkin 2004, Brody and Highfield 2005). In such situations Lucas and Fuller (2005) comment that “environmental justice goes to the core of traditional land-use decisions” (p. 429), especially when identifying sites for locally unwanted land uses; and the processes associated with these choices.

Sustainability and LGs

As indicated, LGs have been involved in the management of conservation and environmental issues through land use planning, particularly through legislation associated with land use planning. In addition to this statutory approach, LGs have also become more involved in setting future directions using strategic planning approaches. Use of Local Agenda 21 (LA21) introduced one of the early moves to identifying future directions, leading into general sustainability planning and the range of tools used to assist sustainability goals.

Local Agenda 21

The 1992 United Nations Conference on Environment and Development held in Rio de Janeiro formulated the document Agenda 21 to guide nations in their pursuit of sustainable development. Agenda 21 provided directions for many sectors of society, including national governments, educational institutions, private businesses, and LGs. Chapter 28 focuses on the role of LG and provides guidance for LGs, with encouragement to develop individual LA21 strategies. The international Council on Local Environmental Initiatives, founded in 1990 to support LGs in their development of environmental initiatives, has provided encouragement and support for LA21s, but their development has been problematic (Selman 1998).

In essence a LA21 is a process to establish a strategy for the LG to work towards sustainable development. For example, in the UK LA21has become “the principal means of addressing sustainable development practice at the local government level” (Selman and Parker 1999, p. 47). The details of this process and the specifics of the strategy are dependent on the specific needs of the LG and its communities. As a voluntary process that is generally funded by the LG, LA21s have been embraced by many LGs internationally, especially in Europe (Evans and Theobald 2003, Sancassiani 2005), however, while there is interest in the role of LA21 as a framework for sustainability policies this frequently does not translate into the development of a LA21 (Aall 2000, Buzarovsky 2001, Barrett and Usui 2002, Echebarria et al. 2004).
In Australia the adoption of LA21 is similarly mixed. Whittaker (1996) reported that in 1996 there were 41 LGs across Australia involved in LA21. By the late 1990s Mercer and Jotkowitz (2000) could identify that “progress” had been made in the ten Victorian LGs, but the lack of support for environmental policy by the Federal Coalition Government coupled with the financial limitations on LGs made LA21 development difficult. Even so, in 2002 Lyon et al. (2002) reported that the number of Victorian LGs reporting the use of LA21 had doubled compared with the eight reported in 1998. Financial restrictions were also identified by Hine (n.d.) as a reason for limited activity by rural LGs in South Australia. However, the observation was made that “in some instances these councils may be undertaking initiatives that are consistent with LA21, but for a variety of reasons are not labelled as such”. (n.p.) In subsequent surveys of Victorian LGs (2006 and 2008) there are no references to LA21 suggesting a similar situation to the South Australian experience, and the data indicate the trend away from formal LA21 documents to a group of sustainability policies (Figure 5).

**Sustainability planning**

The context for sustainability planning is expressed by Sparkes and Peattie (1998, p. 62) as:

> Particularly at local government level, managers are grappling with the very real dilemma of delivering the levels of local economic growth promised by the politicians, while still protecting and sustaining the local environment and the quality of life that is so important to residents.

International instances of a broad range of sustainability planning has been reported (Grewe et al. 2002, Van Begin 2004, Enticott and Walker 2005). Similarly, in Australia, Wild River (2003) noted that in Western Australia the South West Environmental Strategy was developed to overcome inconsistent approaches by government agencies, and to protect environmental values through engagement of a range of stakeholders. More specifically the City of Warnambool has developed its Land Use Strategy (City of Warnambool 2004). To provide guidance and support for similar activity the Australian Local Government Association (ALGA n.d.b) and MAV (n.d.b) have both instigated programs to encourage LGs to participate in sustainability planning, often linked to LA21. The results of these programs is difficult to judge, however a survey of Victorian LGs in 2005 found that more than half of the responses indicated the use of a range of strategies that were related to LA21; for example sustainable water use, local sustainability, green

<table>
<thead>
<tr>
<th>Policy</th>
<th>2002 (% of LGs)</th>
<th>2005 (% of LGs)</th>
<th>2008 (% of LGs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA21/sustainability plan</td>
<td>21</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Local conservation strategy</td>
<td>44</td>
<td>52</td>
<td>64*</td>
</tr>
<tr>
<td>Local sustainability</td>
<td>-</td>
<td>36</td>
<td>-</td>
</tr>
<tr>
<td>Local sustainability (internal operations)</td>
<td>-</td>
<td>-</td>
<td>74*</td>
</tr>
<tr>
<td>Local sustainability (community)</td>
<td>-</td>
<td>-</td>
<td>70*</td>
</tr>
</tbody>
</table>

*as a separate document or as part of another policy

Figure 5. Reporting of sustainability type policies reported by Victorian LGs. Source: Lyon et al. (2002), Rogers et al. (2006), MAV (2008).
purchasing (Rogers et al. 2006). As indicated by a subsequent survey (MAV 2008) this development has been consolidated with more than two-thirds of LGs having strategies related to stormwater management, waste management and sustainable water use; roughly one-fifth also had strategies for local sustainability, for internal operations and for community.

**Sustainability tools**

Environmental accounting and Triple Bottom Line reporting are seen as important mechanisms for providing information about the environmental activities of LG, and ensuring that they are included in broad business planning (Burritt 1999, Keating 2002). Equally, Keen et al. (2006) see that the process for collecting information and its use needs to be developed to be relevant to sustainability.

Environmental management systems (EMS) are also used as means of directing environmental activity, and can contribute directly to sustainability. Emilsson and Hjelm (2007) comment that many local authorities use EMSs to assist their environmental management, but often find it difficult to manage environmental impact caused by their exercise of authority i.e. indirect environmental impact. Nonetheless, Wild River (2003) notes that several proactive LGs have adopted these systems, encouraged by the ALGA. To assist LGs guides and models for EMS have been developed, such as that of the Queensland Department of the Environment (Swift and Broady 1998). In Australia there has been a growing interest in the use of EMSs, as indicated by Victorian activity. Since 1998, when Lyon et al. (2002) reported five Victorian LGs using EMSs, the numbers had increased to eight LGs in 2002 and 11 in 2005 (Rogers et al. 2006), but in 2008 only five reported having a stand-alone EMS with another five having it combined with another policy/plan.

**Areas of the environment directly involving LGs**

To this point I have illustrated the broad approaches that LGs have been using to connect aspects of environmental management and policy. The range of environmental issues that LGs focus on is also worth discussion. In some cases LGs have instigated projects that bring together several aspects of environmental management, such as in the redevelopment of buildings where, for example energy and water conservation, and waste management principles have played a major role in the works (Wild River 2003).

**Energy management and greenhouse/climate change**

LGs use energy in their operations and their planning and development activities strongly influence others’ use of energy. As MAV (n.d.c) note, “local government is well-placed to help communities achieve reductions and to ensure maximum efficiency in energy use relating to their own operations and facilities” (n.p.). To support this activity guides and other tools are available to LGs (Straka 2002).

Whether there has been an absence of action from other levels of government or not, internationally LGs have initiated activity on climate change (Anon 2006, Meliton 2006). A prominent facilitator for this activity has been Cities for Climate Protection Campaign. As discussed by Lindsseth (2004), this Campaign has constructed climate change protection as a local issue, and climate change protection can be reconciled with local priorities and initiatives that reduce greenhouse gases. Another mechanism for LGs to assist with
energy efficiency and conservation is through their promotion of green building design (Fleming 2004).

In Australia climate change activity is supported by the ALGA (n.d.c) and MAV (n.d.d). From the surveys of Lyon et al. (2002) and Rogers et al. (2006) an increasing involvement of LG is indicated. As found by the 2008 survey (MAV 2008, p. 4) “greenhouse gas emissions reduction became the number one high priority issue for councils (jumping from ninth place in 2002 and seventh in 2005)”. This trend was anticipated by Bulkeley (2000), who comments that “from its initial marginal position, LG has begun to occupy a more prominent role in greenhouse policy development and implementation” (p. 289).

**Water management**

Water has become a major issue across Australia, and as summarised by MAV (n.d.d; Water Resource Management) “Local government has certain responsibilities and an active interest in issues around the management of water – whether it be drinking water, domestic wastewater, stormwater, greywater or water in another form” (n.p.). The response, in Victoria at least, has been preparation of policies for stormwater management (by 87% of LGs), sustainable water use (79%), and domestic water management (70%) (MAV 2008). Similar to other areas of environmental management, the MAV again provides support for LGs. Support is also generated by ALGA (n.d.c; Water), specifically by outlining the national water policies that LG can link with, and the Water Campaign of the ICLEI.

**Biodiversity and natural resource management**

Land use and sustainability planning by international LGs, noted previously, have had connections to biodiversity considerations (for example Tarlock 1993), and LGs are often involved in the direct management of bodies of land or water where a major factor is the conservation of biodiversity. As an Australian example Tennant-Wood (2004) records the Wonga Wetlands project, in the City of Albury City Council where the management of waste water is used to develop wetland values, and provide a model for community-based resource sustainability. Again ALGA (n.d.c; Natural Resource Management) and MAV (n.d.d; Natural Resource Management, and Forestry) both support these types of activities and provide guidance for LGs’ involvement. Across Victoria many have strategies for native vegetation, biodiversity, natural heritage, riparian protection, wetlands, or coastal/foreshore management; often these are part of another policy or plan (MAV 2008). Likewise Choy et al. (2008), using a broad definition of natural resource management, found that in Queensland councils have a strong commitment to natural resource management in terms of staff assigned to these duties, and in the resources provided; councils were also committed to monitoring and evaluating their programmes.

**Green purchasing**

LG authorities constitute an important part of the public procurement market and these authorities are showing their commitment to sustainability by ensuring purchasing habits take account of the environment. In Victoria over half of LGS have green purchasing policies (MAV 2008). Examples of the activities of LGs across Europe and within Australia are provided by Day (2005), and MAV (n.d.d; Green Purchasing), and Murray (2000).
**Waste management, resource efficiency and recycling**

As noted earlier, one of the traditional roles of LG has been in the provision of basic services such as rubbish collection. With increasing concern over pollution from landfills or incinerators and consumption of resources “rubbish” is now managed rather than simply disposed of, and management approaches have become relatively sophisticated. Kijak and Moy (2004) comment that:

> The goal is to achieve sustainable waste management practices by balancing global and regional environmental impacts, social impacts at the local community level, and economic impacts. The framework integrates life-cycle assessment ... with other environmental, social, and economic tools. (p. 33)

Across Australia this type of comprehensive approach has been in development for some time. In the view of Wild River (2003, p. 350) Australia’s National Waste Minimisation and Recycling Strategy has been “highly influential in shifting waste management thinking and practices” since much of its implementation has been the responsibility of LGs. The response is shown by the surveys reported by Lyon *et al.* (2002), Rogers *et al.* (2006) and MAV (2008) that indicate waste management, resource efficiency and recycling activities have been major activities of Victorian LGs since the mid 1990s; in 2008 84% of LGs had waste management policies. LG associations play a continuing role in promoting and supporting LG involvement in waste management for resource efficiency (ALGA, n.d.c; Waste and recycling; and MAV, n.d.d; Waste Management & Resource Efficiency).

**Overview**

Clearly the role of LGs in environmental management has moved well past the traditional roads and rubbish areas. World-wide there are instances where LGs are involved in the spectrum of environmental issues. Equally these LGs are using a range of policy approaches to respond. Similar activity is repeated across LGs in Australia.

However, while the material published about LG involvement with environmental policy demonstrates that the involvement is broad, there is little to indicate the effectiveness of this engagement. Specifically there is little discussion available to indicate if any of the activity noted, i.e. the policies, plans, have led to environmental improvement. The work of several researchers indicates LGs face particular barriers in developing and implementing their environmental policies (Keen and Mercer 1993, Whitaker 1997, Wild River 2003, Pini *et al.* 2007), and MAV (2008). They have noted that limited resources and limited staff are restrictions on LGs abilities to undertake, or be involved in, environmental initiatives. Whether these limitations are substantially affecting the ability of LGs to implement effective environmental policies is not clear. However, the short-term financial situation of LGs does not encourage optimism. As PricewaterhouseCoopers (2006) note, an:

> ... expansion in roles and service quality, coupled with growth in input prices ... has seen a significant number of councils develop financial operating deficits. To moderate the size of these deficits, some councils have deferred or reduced expenditure on infrastructure renewals. Many local councils across the country have sizable financial sustainability challenges ... (p. 1)

In addition, proposed Commonwealth Government policy in relation to climate change (the Carbon Pollution Reduction Scheme) could put additional financial stress on LGs and cause them to pass on the cost of the Scheme through rates or charges (Lake 2009).
These pressures help to explain why Victorian data (MAV 2008) suggests there are many areas of environmental policy where its implementation has been only partially completed. Yet at a time when environmental problems (such as climate change) are constantly the subject of academic, government, community and media reports, we need to know the effective ways of resolving, or reducing, those problems. Given the range of ways in which LGs are associated with environmental issues it is important to gauge the extent to which they can contribute to a reduction of our environmental problems. This suggests an important research gap, indicating the need to review: the engagement of LGs in environmental policy; the value of this engagement; and whether there are opportunities to reconfigure the means of engagement to improve environmental outcomes.

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Note
1. The Australian Capital territory and Northern Territory have similar roles and responsibilities to the states.

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