



Australian Government
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Policy Integration for Sustainable NRM: Joint Research and Policy Learning

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Disclaimer

This project was a collaborative investigation, however this is an independent research report by the authors, and does not necessarily reflect the opinions of other participating individuals or organisations.

Summary

Background

Sustainable natural resources management requires the integration of economic, social and environmental considerations in policy and decision-making. For example the economic and social advantages of land clearing and irrigation need to be balanced with environmental costs such as salinity and soil erosion. In practice environmental goals often receive lower priority because they have a relatively weak political constituency - the benefits of clean air and water are diffused across large areas and populations, and the values of some environmental elements such as biodiversity are unclear. This has resulted in the increasing concerns about environmental policy integration - the incorporation of environmental objectives into economic and social policies and policy assessments. Environmental policy integration includes the extent of integration across economic sectors and government functions, and the relative priority given to environmental policy integration in the policy-making system.

Objectives of the project

In Australia and other countries governments and policy communities have created a range of strategies, structures and processes to enable the environmental policy integration. However, there has been relatively little assessment and evaluation of these initiatives, and especially comparative analysis from a public administration perspective. The project aimed to undertake a process combining original research and active policy learning across and within Australian jurisdictions:

- (i) To describe and comparatively analyse current practices and structures for environmental policy integration in Australian and overseas jurisdictions; and
- (ii) To clarify best practice and to define options for improving environmental policy integration capacities.

Approach to the project

The analysis focused on four Australian States (New South Wales, Victoria, South Australia and Western Australia) and the two Australian Territories supplemented by a review of international experience and some references to Australian federal government arrangements. The project drew on official and academic sources in Australia and overseas, and policy dialogue between researchers and officials.

The project did not start with any predetermined idea of optimal structures and processes for achieving environmental policy integration, and did not attempt to judge arrangements in one jurisdiction compared with another. It was assumed that different jurisdictions develop and use different approaches to achieve similar objectives, and that these approaches are continually evolving - there is no ideal model. Federal systems such as Australia contain various strategies, structures and processes. These can be viewed as policy experiments in a continually evolving and adapting system - during the course of the project there were major changes in environmental administration in several jurisdictions participating in the project. These experiments provide many opportunities for policy learning.

Key findings

The main findings of the project were as follows:

Embedding sustainability in structures and processes

The implementation of sustainable natural resource management strategies need to be accompanied by action to embed sustainability in administrative structures and processes through mechanisms such as charters, regulations, guidelines, processes of analysis, monitoring, review and evaluation. Ex ante and ex post sustainability analysis of policies and programs is particularly important to ensure that decisions reflect sustainable development principles, and robust evaluation of sustainable natural resource management outcomes.

Development of a long term evidence based approach

Most policy integration arrangements still have a relatively short term focus related to the electoral cycle. Further action is required to develop organisations and capacity to take a long-term evidence based approach to policy development including through scenarios, outlooks, and adaptive management processes, including policy experiments and their evaluation. The persistence and vigour of implementation is likely to be far more crucial in most cases than the choice of specific mechanism.

Strengthening decentralised implementation arrangements

Decentralised arrangements for implementing sustainable natural resources management require clearly defined goals, authority and legitimacy for action. Some central steering is required, especially in setting goals and targets, but the key role of federal and state agencies is coordination and ensuring that decentralised administrative bodies have the mandate, skills, tools and resources needed to carry out their functions.

Importance of leadership, cultural change and capacity building

Leadership, cultural change and capacity building are key factors in determining the success of policy integration, structures and processes. Strong leadership is needed to establish direction and whole of government collaboration, a supportive political and administrative culture maintains momentum towards sustainable practices, and capacity building that provides the skills and tools needed to get the job done.

Policy integration is more than the sum of its parts

Policy integration in natural resources management (and other fields) is more than the sum of individual strategies, policies, structures or processes. The breadth and diversity of activities present a particular challenge for overall coordination, measurement and accountability. It is difficult for any one part of the policy and governance system to get a complete overview of environmental policy integration. Therefore it is vital to give environmental policy integration initiatives time to show results, and to evaluate and compare them on a whole of government basis to provide feedback for new initiatives. It seems likely that the best results can be obtained by joining up individual strategies, structures and processes to complement and reinforce each other, and avoiding duplication, mixed messages and conflict.

This project has consolidated and extended understanding of the need for and nature of policy integration in the domain of environment and sustainability, and described and analysed selected international and Australian initiatives. Subsequent outcomes of the project will summarise and deliver these insights to specific Australian audiences. However, given the difficulty and scope of the enterprise – policy integration is a generational task in public administrative systems and society more broadly – there are some clear further knowledge gaps that could be addressed through further work, including both research and policy practitioners:

- 1** Further exploration of the role of policy leadership in maintaining focus and efforts, and ensuring the persistence of initiatives into at least the medium term.
- 2** Detailed evaluation of leading policy experiments over time to identify critical constraints and enabling factors, noting that this one-year project has been more of a snapshot of current and recent initiatives.
- 3** Closer attention to effective mechanisms for coordination and synergy between policies and programs across government, noting that whatever the overall coordination structures and processes in place, much integration will need to occur via multiple connections across a large number of initiatives in multiple agencies.

Project reports

This final overview report is a complete report on the research project, drawing on various project materials, and serves as a stand-alone product. The following other materials are appended, providing further detail on international and Australian experiences identified and analyses by the project:

- 1** International trends and best practice to enable environmental policy integration, drawing principally on OECD countries and materials, by Andrew Ross.
- 2** Australian jurisdictional reports, developed by project participants and their agencies in collaboration with other jurisdictional agencies:
 - Victoria: Department of Sustainability and the Environment;
 - South Australia: Department for Environment and Heritage¹;
 - Western Australia: Department of Environment and Conservation;
 - New South Wales: Australian National University in collaboration with the NSW Premier's Department;
 - Northern Territory: Department of Natural Resources, Environment and the Arts.

1 Some functions moved to the Department of the Premier and Cabinet in mid 2006.

The structure of this document

The report is divided into five sections:

- 1** introduction to the project objectives, methodology and partners;
- 2** explanation of what is understood by policy integration in the study - based around the concept of environmental policy integration
- 3** outline of the framework used to compare policy integration experiences;
- 4** comparison of environmental policy integration divided into three parts: strategies, structures, and processes
- 5** conclusions on environmental policy coordination and integration, barriers and gaps and possible institutional responses.

1 Introduction

Sustainable development issues such as climate change, air pollution, urban growth and associated problems, biodiversity loss and integrated land and water management have assumed a prominent place in policy at all levels of government. Many governments have adopted environmental or sustainable development plans, and established policies and laws to translate these plans into action. This requires the integration of environmental, social and economic considerations in policy and decision making. That integration is core to sustainable NRM and sustainable development more broadly. For example, officials formulating energy and transport policy need to consider greenhouse gas emissions and climate change, and those formulating agricultural policy need to consider the impact of irrigation on land degradation and water pollution.

In administrative, policy and institutional terms, this challenge is referred to as ‘policy integration’ or ‘environmental policy integration’, and invites thought and action on how this can be achieved within policy systems and in public administration. In Australia and other jurisdictions, governments and policy communities have created a range of structures and processes to enable the integration of economic, social and environmental policies. These integrative initiatives have included government and non-government actors: the former are the principal focus of this study. However, there has been little assessment and evaluation of these initiatives, especially comparative analysis from a public administration perspective. This project aims to describe and analyse some of these strategies, structures and processes in natural resource management, environmental and sustainable development policy. While the main focus is on structures and processes the analysis also takes account of strategic approaches, for example through planning and legislation, and enabling variables such as cultural factors and capacity, including people and resources. The project also reviewed OECD environmental and sustainable development policy integration experience and the literature on environmental policy integration. Comparative analysis provided by the project is intended to allow lesson drawing to inform future practice.

The analysis focuses on four States in Australia (New South Wales, Victoria, South Australia, and Western Australia) and the two Australian Territories (Australian Capital Territory and Northern Territory)², with some additional material on the Australian government. Policy integration arrangements in Australia are compared with selected overseas examples. In some jurisdictions, the focus of policy integration is broad, encompassing the sustainability domain and residing in central agencies; in others it resides largely in resource management or environment departments and is focused on specific issues and sectors. The structures and processes used also vary widely. The scope of the project is determined empirically, being defined by what governments (often in collaboration with non-government interests) are doing, in Australia and elsewhere, and what participating officials believe is most worthy of analysis.

2 Queensland and Tasmania originally intended to participate in the project, because did not do so because of competing priorities and changes in personnel. The explicit methodological style of the project – engagement in the research by key personnel – weighed against adding ‘outsider’ analyses of these two jurisdictions.

The project did not start with a predetermined idea of the ideal scope, (eg. NRM *versus* broader sustainability) or of optimal structures and processes for achieving policy integration (eg. central policy units *versus* dispersed activities in line departments, or strategic assessment *versus* sectoral policy)³. Neither does it intend to judge the structures and processes in one jurisdiction in comparison with another. Rather it was assumed that different jurisdictions – for reasons of history, political context, existing administrative structures, issues faced, etc. – would utilise different means to achieve the same or similar policy objectives. The project also assumed that no jurisdiction anywhere in the world has yet ‘solved’ the challenge of policy integration, and that no complete blueprint or model exists or can be easily transferred from one place to another. The limits of comparative policy analysis in transferring models as opposed to its potential to inform is recognised⁴.

A further assumption underlying the project is that, even if jurisdictions define the scope of policy integration differently and use different strategies, many of the underlying challenges are similar, and this increases the possibility of comparative analysis and learning from that analysis. This is especially the case in a federal system such as Australia. Federal systems contain various structures and processes that can be viewed as policy ‘experiments’ providing a range of experiences. However these concurrent policy experiments are rarely compared and analysed in a structured fashion or in real time. This project seeks to undertake that analysis and transfer lessons learned.

The project recognized a crucially important fact: that *policy integration requires systems of public policy and administration to do things both differently and better*. The hierarchical logic and specialized structures of government and bureaucracy are long standing and deeply embedded (and have many positive impacts and outcomes). Policy integration for sustainability requires change to the way in which governments have long undertaken their functions (and to the way knowledge is organized, budgets allocated, research and education operate, etc). “Connected government’ and ‘whole-of-government’ are major challenges in modern public administration⁵, and it is understandable that no jurisdiction has surmounted that challenge yet – especially in the particularly difficult area of sustainable NRM. Therefore, this project is one contribution to the long term, iterative endeavour of learning of how to integrate, and the conditions under which integration is effective or not.

The project was framed as a concurrent process of research and active policy learning, the latter enabled by the participation of key officials in Australian government agencies with interests in and responsibilities for policy integration (the project objectives and timetable are at Appendices 1 and 2). The core elements of the process included four parts:

- (i) international review of key trends and initiatives in policy integration undertaken by the ANU researchers, focused on the OECD, to provide background and benchmarks for Australia;
- (ii) description and analysis of past and current policy integration initiatives in Australian jurisdictions in recent years⁶;

3 The project does not cover market-based instruments (taxes, subsidies, charges), or other (arguably integrative) policy instruments, because they are instruments rather than structures or processes, and because they are primarily concerned with market integration although they have an important role in integrating economic and environmental policy.

4 R. Rose, *Learning from Comparative Public Policy: a Practical Guide* (2005).

5 Management Advisory Committee, ‘Connecting Government: Whole of Government Responses to Australia’s Priority Challenges - Summary of Findings’ (Commonwealth of Australia, 2004).

6 The analysis does not go back beyond 1992, and is mainly concerned with structures and processes established since 2000.

- (iii) joint comparative research and policy analysis involving researchers and officials in Australian jurisdictions, including a two day residential meeting of key participants ; and
- (iv) synthesis and communication.

The project builds on previous and related work over the past decade, and particularly on two Land & Water Australia-funded research projects led by Professor Stephen Dovers at ANU.⁷

The manner in which each jurisdiction was approached varied. Members of the network of state and territory government officials concerned with policy integration (The Sustainability Collaboration⁸) were the core participants, and within that group particularly active and interested individuals were most intensively involved. Due to the differing knowledge and interests of the participants, and variations in policies and institutions, jurisdictions exhibit quite different approaches. In South Australia, Western Australia and the Australian Capital Territory, the activities of sustainability offices and units in central and environment agencies were prominent. In NSW attention centred on a group within the Premier's Department. In Victoria, the focus was on the departments managing cross-portfolio environmental and natural resource management policies. In the NT, a small jurisdiction with no such major structures, the focus was on integration of social, environmental and economic issues in sectoral policy initiatives.

As well as state and territory jurisdictions, information inputs and perspectives were added from civil society experiences in cross-sectoral integration (via the WA Collaboration⁹), and from industry via a representative of the Barton Group. A list of participants is provided at Attachment C.

It is important to note two challenges in undertaking a research project that seeks to engage in active policy initiatives through participation of key officials. First, such officials must essentially add their effort in contributing to such a project to their already typically very full workloads and responsibilities. Without this level of commitment, such research is impossible, and the authors of this overview express sincere gratitude to participants. Second, a number of jurisdictions and specific administrative units being focused upon were, in the course of this relatively brief project, subject to significant disruption in the form of administrative restructuring, shifts to other departments, loss of resources, and so on. The objects of the study were often moving targets, making both engagement with staff and analysis understandably difficult.

The project overview proceeds with a discussion of the framework for analysis of policy integration and coordination, followed by an analysis of Australian and international experience, and conclusions.

7 These projects were reported in: S. Dovers, and S. Wild River (eds) 2003. *Managing Australia's environment*. Sydney: The Federation Press, and R. Connor, and S. Dovers, 2004. *Institutional change for sustainable development*. Cheltenham: Edward Elgar. The project also has links to Grains R&D Corporation-sponsored research undertaken at the National Europe Centre at the ANU and OECD-related work, carried out by A. Ross and others. Several initial reviews of state scale policy integration initiatives have been prepared by project participants (some for an LWA integration meeting in 2004), and this work was further developed during this project.

8 "The Sustainability Collaboration" is an informal network that corresponds mainly on an ad hoc basis and informally, and occasionally organizes face to face meetings.

9 See Montague and Barter (2005), p 37.

2 Framework for analysis

2.1 Environment policy integration

It is necessary to clarify what is understood by policy integration in this project, before proceeding with the comparative analysis of structures and processes that promote such integration. Two widely used definitions are given in Box 1 below. These statements suggest that policy integration refers to the integration of economic, social and environmental considerations in decision-making.

Box 1 Policy Statements on Policy Integration

- a** To conduct a national review of economic, sectoral and environmental policies, strategies and plans to ensure progressive integration of environmental and developmental issues;
- b** To strengthen institutional structures to allow the full integration of environmental and developmental issues, at all levels of decision-making;
- c** To develop or improve mechanisms to facilitate the involvement of concerned individuals, groups and organizations in decision-making at all levels;
- d** To establish domestically determined procedures to integrate environment and development issues in decision-making

UN, Agenda 21, Chapter 8, 1992.

“Decision making processes should effectively integrate both long and short-term economic, environmental, social and equity considerations.”¹⁰

First guiding principle, Australian National Strategy for Ecologically Sustainable Development, 1992.

In practice most of the concerns about policy integration in the context of sustainable development have been prompted by evidence of worsening environmental trends as economic and social development proceeds¹¹, and the apparent tendency for environmental goals and values to be ranked below economic and social issues¹². The relatively low priority of environmental goals can be explained by some special features of environmental services, values and outcomes. Environmental services such as clean air and water tend to be diffused across large areas and populations, rather than being concentrated in particular industries or social groups. It is difficult to value many environmental attributes such as biodiversity. The impacts of human activity on the environment such as greenhouse gas emissions are often uncertain and only become clear in the long term. These factors result in the environment having a more diffuse and weaker political constituency than many economic sectors and social groups. Therefore, in the context of sustainable development, much of the discussion around policy integration has been about “environmental policy integration”.

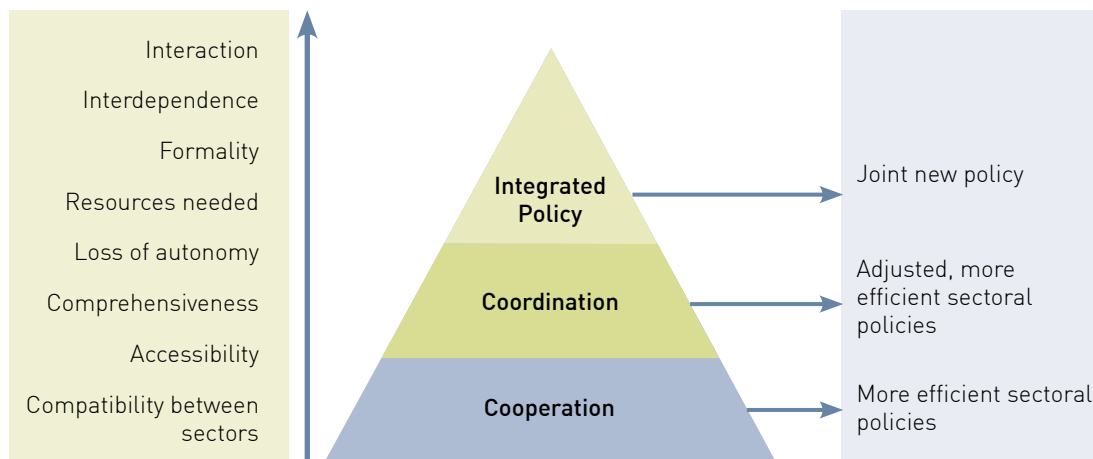
¹⁰ Environmental, social and economic are the terms used in most discussions of sustainability and are thus used here, recognizing that other dimensions (eg. cultural) are included by implication.

¹¹ European Environmental Agency, ‘Environmental Policy Integration in Europe, State of Play and an Evaluation Framework’ (European Environmental Agency,(2005a) 11.

¹² Ibid, 12.

Environmental policy integration has been defined as the incorporation of environmental objectives into policy in non-environmental policy spheres, accompanied by an effort to aggregate environmental consequences into policy assessment¹³. In this context the relative weighting of environmental and other policy concerns is an important issue¹⁴. This project is primarily although not exclusively an examination of environmental policy integration – and in particular, the conditions under which organisations implement integration. This reflects both the interests of the participants and the bulk of the case study material.

FIGURE 1
Integrated policy-making, policy co-ordination and co-operation (Meijers and Stead 2004)



Policy integration can be differentiated from policy coordination and policy cooperation (Figure 1). Policy integration results in one joint policy for several areas/sectors, with the joint policy objective (such as sustainable development) being on a higher scale than sectoral objectives. Policy coordination aims at making separate policies mutually reinforcing and consistent – policy goals may have to be modified to achieve consistency. For example, land clearing to increase agricultural production may be regulated because of its effects on CO₂ emissions or water quality or tax policy revised to incorporate environmental incentives/disincentives. Policy cooperation involves organisations working together for mutual benefit but maintaining their own separate goals.¹⁵ For example environmental agencies may work with agricultural agencies to encourage farmers to adopt environmentally friendly practices.

13 This definition draws on W. Lafferty and E. Hovden, 'Environmental Policy Integration: Towards an Analytical Framework' (2003) 12(3) *Environmental Politics* 9. Lafferty and Hovden also argue that contradictions between sectoral and environmental policies should be resolved by giving priority to the latter. This reflects a "normative" view that environmental policy integration is a state that embodies key ecological values/systems that must be preserved and cannot be traded off for other goals. An alternative "rational" view is that environmental policy integration is a process in which environmental outcomes are evaluated in comparison with economic and social outcomes, in consultation with affected parties (stakeholders and the public) Productivity Commission, 'Implementation of Ecologically Sustainable Development by Commonwealth Departments and Agencies' (AusInfo, 1999) 89, 104.

14 A. Persson, 'Environmental Policy Integration: An Introduction' (Stockholm Environment Institute, 2004) 42.

15 This paragraph and Figure 1 are based on Meijers, E. and Stead, D., "Policy Integration: What Does It Mean and How Can It Be Achieved? A Multidisciplinary Review", (2004), paper presented to the Berlin conference "Greening of Policies, Interlinkages and Policy Integration", 2-5.

2.2 Extent and strength of environmental policy integration

There are a number of different aspects of environmental policy coordination and integration. Broadly these can be divided into extent, which refers to the scope and reach of environmental policy integration across economic sectors and government functions, and strength, which refers to the relative priority given to environmental policy integration in the policy making system¹⁶. Strength can be measured in several ways such as the authority was delegated by the Parliament to an agency or its legislation, the resources (funding and staffing) allocated to the agency for implementation; and the existence of effective coordinating mechanisms.

Key dimensions of environmental policy coordination and integration considered in this paper include integration within and between governments, participation of stakeholders and communities, integration of science and policy, and integration throughout the policy process¹⁷. Integration within government includes horizontal integration across government portfolios, and vertical integration, which in this study refers to integration between levels of government¹⁸. Horizontal integration may aim at a complete connection of environmental, social and economic policy development, integration of environmental considerations into other cross sectoral policy domains (eg. economic or trade policy, regional development) or policies for sectors such as agriculture, industry, energy, transport, health and education. Vertical integration sometimes involves organizational development, partnerships or program delivery at non-traditional spatial or administrative scales (eg. water catchments).

Participation of different parts of the community and non-government sectors may occur through agreements (such as covenants with industry) and inclusive processes, organisational arrangements or deliberative methods informing policy. Broad societal backing (e.g. from key stakeholders) and public support is important because administration is rarely engaged in change without external pressure, for example from a crisis¹⁹. Broad participation in decision-making can legitimise environmental objectives, build support for and provide feedback on agency programs, supply local knowledge, contribute to community education, and enhance democratic processes by increasing government accountability²⁰. Deliberative processes can also avoid capture by vested interests and assist in resolving contested policy issues²¹. But broad engagement also involves higher transaction costs, and places new demands on government and non-government actors alike.

16 The distinction between the extent and strength of environmental policy integration can be related to the distinction between normative versus organizational and procedural perspectives in the academic literature on environmental policy integration. Strength maps to normative perspectives whereas extent maps to organisational and procedural aspects Persson (2004), 28-33, 36.

17 Market integration is also important but was considered to be a separate topic, too big to be included within the scope of the project, and generally pursued by specific market instruments as opposed to organizational structures and processes that are the topic here.

18 In some studies such as Lafferty and Hovden vertical integration has been defined as all aspects of integration within a specific sector.

19 A. Lenschow, 'Greening the European Union - Are There Lessons to be Learned for International Environmental Policy?' (2002) 12 *Global Environmental Change* 241 245.

20 A Curtis and M. Lockwood, 'Landcare and Catchment Management in Australia: Lessons for State-Sponsored Community Participation' (2000) 13 *Society and Natural Resources* 61, 64.

21 M.B. Lane, G.T. McDonald and T. H. Morrison, 'Decentralisation and Environmental Management in Australia: A Comment on the Prescriptions of the Wentworth Group' (2004) 42(1) *Australian Geographical Studies* 103, 105.

The status and tradition of using science and knowledge in the policy decision making system can have an important impact on environmental policy integration²². Science provides the basis for understanding the inter-relationship between human society and the global ecosystems, and understanding the long-term impacts of environmental damage. The use of knowledge-based analysis in decision-making processes enables the objective assessment of environmental values, and of the appropriate mix of economic social and environmental objectives. Science also provides a long term perspective, beyond the political cycle.

Finally, environmental policy integration needs to be achieved throughout the policy cycle: planning and direction setting, policy design, program delivery, monitoring, evaluation, feedback and adaptation²³. This is complicated by the fact that environmental policy has a relatively long cycle - the environment responds more slowly to policy change than economic or social factors.

The strength of environmental policy coordination and integration refers to both the incorporation of environmental policy values and principles in decision-making, and the energy with which environmental policy goals are pursued. Concerning leadership, the OECD concluded²⁴ that

“Government should ensure that the precise economic, social and environmental realities of sustainable development are properly understood and that their relationship is also understood. Clear government commitment to sustainable development goals, leadership and communication of this commitment, are essential to support the development of concrete strategy and subsequent action. This commitment should come from the top. Developing leadership and capacity throughout public sector organisations is also essential. This is particularly challenging given the potential for conflict among various interests both in the public and private sectors. Stronger political leadership is needed to shed light on how to take sustainable development forward. This leadership has in turn to address problems that result from “silo” thinking, from reluctance to cede decision-making authority and from short termism”.

Australian experience indicates that changes in environmental policy integration are often stimulated, positively or negatively, by elections or political crises. But it is important for high-level political commitment to be maintained for a longer period than the political electoral cycle because the impacts of human activities on the environment (and measures to moderate those impacts) only become apparent in the medium to long term²⁵.

Political and administrative culture and administrative capability also have a strong influence on whole of government integration. Policy traditions and administrative culture are influenced by political leadership and structural change, but it take some time to embed

22 There are many uncertainties concerning the impact of human activity on the environment and the value of ecosystem services. The integration of science in decision-making processes raises normative questions such as the relative weight to be given to scientific vs traditional knowledge and market vs physical indicators, appropriate discount rates and the application of the precautionary principle.

23 A. Ross, 'National Institutions for Sustainable Development: The Challenge of Long-Term Policy Integration' (2005) 10 (No 1) *Australasian Journal for Natural Resources Law and Policy* 114.

24 OECD, *Improving Policy Coherence and Integration for Sustainable development* (2002) OECD <<http://www.oecd.org/dataoecd/61/19/2763153.pdf>> 5.

25 OECD, *Sustainable Development: Critical Issues* (2001) 120.

new rules and traditions in new organisations and procedures, and even more importantly to change the rules and procedures that are already embedded. Environmental policy integration (and sustainable development) are new frames of reference and take some time to become embedded²⁶.

Culture and capability have a large impact on the implementation of environmental policy integration because it is people that drive processes and determine outcomes. In this sense integrative structures and processes can be viewed as networks which are “switched on” by people who provide the energy through their motivation and relationships, routines and day-to-day agency practices. Agency heads and executives have a key role in influencing administrative culture, behaviour and attitudes, by developing systems and procedures to support appropriate local decision-making, capacity development and accountability arrangements. The Australian Government’s Management Advisory Committee found that:

“Whole of government that is not just about structures. It is as much about the way things are done. Successful outcomes depend on power-sharing, thinking outside the box, solving practical problems of information management and infrastructure, staffing, budget and accountability and stakeholder relationships. Culture and capability shapes the success of whole of government activities. Portfolio secretaries have a key role in influencing behaviour and attitudes of the APS towards collaboration across organisational boundaries. Departments and agencies should support whole of government activities by developing systems and procedures to support authorisation for appropriate local decision-making; capability development focusing on constructive working relationships with other APS agencies and external organisations; accountability arrangements; and taking steps to become more responsive to whole of government demands” (including through more intensive training, learning opportunities, networking, better practice guidance and adoption of report and recognition arrangements).

The development of information systems and information sharing together with better business modelling, investment tools and information management structures are also important together with financial management controls adapted to meet the needs of cross portfolio work²⁷.

In summary, the strength of environmental policy coordination and integration depends on factors such as long-term political leadership, direction and commitment, and administrative culture and capability. These factors enhance or moderate the ambitiousness of environmental policy objectives, the value and status given to these objectives, the weight that they are given compared to other goals, and the methods used for assessing alternatives and evaluating results²⁸. They also influence the energy that goes into environmental policy integration, how actively environmental policy objectives are incorporated into other policies, the persistence of structures, and the implementation of processes. Hence strength factors have a substantial impact on the effectiveness of the strategies, structures and processes that administrations use to promote environmental policy integration.

²⁶ A. Lenschow, ‘Greening the European Union, An Introduction’ in *Environmental Policy Integration: Greening Sectoral Policies in Europe* (2002 b) 17.

²⁷ MAC (2004) 5-7.

²⁸ Quantitative cost benefit analysis is favoured from an economic policy perspective, but tends to reduce the relative weight given to environmental objectives because some environmental benefits cannot be valued and are excluded.

2.3 Framework for comparative evaluation

This study attempts a comparative evaluation of both the extent and strength factors that influence environmental policy integration. These factors are drawn from international literature and reviews, with particular reference to frameworks proposed by Jacob and Volkery²⁹ and the European Environmental Agency³⁰.

Comparisons of environmental policy integration could focus on policy outcomes or policy processes, and could examine either policy integration in its entirety or specific initiatives. The outcomes of environmental policy integration can only be observed in the long term after sustained study, and it is difficult to isolate the impact of particular factors on outcomes. Therefore this project concentrates on environmental policy integration in policy processes and decision-making. The study focuses on the strategies, structures and processes that assist in achieving environmental policy integration. But, it is also recognized that different political, cultural and knowledge circumstances lead to different priorities and institutional mixes. Moreover, similar strategic goals, structures and processes can lead to quite different results depending on strength factors such as political and societal support, and administrative culture and capabilities. Therefore the project attempts to integrate consideration of extent and strength factors.

The extent of environmental policy integration is indicated by the numbers of strategies, structures and processes³¹ that are in place or have been tried by governments (often in partnership with non-government organizations), to integrate environmental, social and economic considerations in the decision-making. This is much easier to assess than the strength of environmental policy integration which can often only be evaluated in a qualitative and judgmental sense. In this project the analysis of strength factors is mainly based on discourse between the researchers and policy practitioners in the six jurisdictions involved in the study.

Table 1 provides an overview of the main strategic, structural and procedural mechanisms that are examined in the cross jurisdictional comparisons in this project. The following paragraphs give some indication of how strength factors influence the impact of these mechanisms.

TABLE 1
Strategic, Structural and Procedural mechanisms for Environmental Policy Integration

Strategic	Structural	Process
<ul style="list-style-type: none"> ■ Sustainability strategy ■ Sectoral strategy ■ Environmental and spatial planning ■ Legal provision 	<ul style="list-style-type: none"> ■ Independent EPI institution ■ Departmental Amalgamation ■ Green Cabinet ■ Coordinating committees and groups ■ Advisory and consultation bodies/mechanisms (structures or processes) 	<ul style="list-style-type: none"> ■ Integrated appraisal of policies and programs ■ Green Budgeting³² ■ Regular monitoring and reporting ■ Periodic evaluation of policies and programs ■ Greening of government

²⁹ K. Jacob and A. Volkery, 'Institutions and Instruments for Government Self-Regulation: Environmental Policy Integration in a Cross-Country Perspective' (2004) 6(3) *Journal of Comparative Policy Analysis* 291-296-99, 304-5.

³⁰ European Environment Agency (2005b), 15-17.

³¹ Structures and processes are essential aspects of environmental governance see, for example, Lafferty and Hovden (2003), Jacob and Volkery (2004).

³² In this report green budgeting is described as identifying the environmental impacts of expenditure programs and proposals, and presenting policy alternatives with different degrees of environmental impact. Further details are given in the sub section entitled Green Budgeting on p 34.

Political leadership is needed to implement strategies, and to encourage improved understanding of the environment and environmentally positive attitudes and behaviour³³. Cross sectoral and sectoral strategies and plans provide the overall framework for action to integrate environmental and other policies. The political commitment to and strength of implementation of such strategies can be gauged by whether environmental objectives are clearly defined together with long and medium term of policy objectives, targets and timetables, sectoral roles and responsibilities and mechanisms to monitor implementation. Linking portfolio budgetary allocations with environmental policy priorities further strengthens environmental policy integration. Constitutional and legislative references can help to embed environmental policy integration and sustainability on a whole of government basis.

Departments and agencies provide administrative leadership for environmental policy integration. Various models have been tried including specialised cross sectoral agencies, leadership by first ministers departments, merging departments responsible for environmental and sectoral policies and leadership by environment departments in coordination with environmental units in other agencies³⁴. The strength of coordination can be gauged by the relative weight given to environmental and other objectives, and the priority and resourcing given by non environmental agencies to activities that enhance sustainability. Coordination by first Minister's departments may be stronger, but may also lead to a dilution of environmental goals, while merged agencies may achieve stronger coordination in some areas at the expense of weaker coordination with other areas.

Inter-governmental and inter-agency policy coordination is promoted by ministerial intergovernmental committees, Cabinet committees, and their administrative equivalents. The strength of these mechanisms is indicated by whether communication is ad hoc and on a need to know basis, or proactive and timely, and whether coordination aims to avoid conflict, reconcile different views and/or take common approaches. Advisory and consultation bodies provide a means for integrating the views of different stakeholders and disciplines, and bringing them to the attention of decision makers. Scientific advisory bodies can provide an integrated, knowledge-based perspective for decision-making by providing research, monitoring and evaluation of the state of the environment and progress towards sustainable development. Advisory bodies are more effective when their roles and responsibilities are clearly defined, they meet regularly, receive administrative support and are listened to by the government.

Structural organisational changes need to be supported by budgetary, planning, assessment and auditing processes, coupled with adequate resources and investment in integration capacity. Assessment mechanisms include tools for the environmental appraisal of policy initiatives and strategic environmental assessments. Assessment of the environmental impact on budget proposals helps to ensure that government spending is consistent with environmental objectives. Monitoring, reporting and evaluation mechanisms generate information on how integration structures and processes are performing and provide feedback for future decision-making³⁵.

Policy integration is a difficult challenge, in many ways running counter to a long history of specialization and separation of functions and mandates in public policy and administration – not only in sustainability and environment, but in many policy sectors (hence the current theoretical and practical emphasis on whole-of-government, connected government and joined-up government). As an inevitably long-term policy challenge, it also runs counter to the short term time horizons of politics and public policy³⁶.

33 European Environment Agency (2005a), 52-3.

34 Jacob and Volkery (2004), 297.

35 Ibid.

36 Although policy integration structures and processes can be put in place quickly, it often takes a long time for policies or policy integration to change environmental trends such as increasing salinity or deteriorating aquatic environments.

3 Environmental policy integration experience

This section reviews the environmental policy integration experience of six Australian States and Territories, with some additional comments on Australian Government institutions³⁷, and comparisons with leading international practice³⁸. The review of State and Territory experience is based on the six jurisdictional reports³⁹ plus additional publicly available material, and more evaluative perspectives supplied during discussions with officials. The review analyses the uptake of strategies, structures and processes that promote policy integration and discusses factors that influence the extent and strength of policy integration.

Cross jurisdictional comparisons are accompanied by case studies to illustrate particular aspects of environmental policy integration. These case studies serve a number of purposes. They provide examples of good practice and some of the difficulties that remain even when improved practices are adopted. They also indicate the extent to which Australia has adopted good practices, and highlight examples (Australian and international) that could be considered for use by Australian jurisdictions. The review includes selected case studies and examples of good practice in Australia. Australian examples are compared with cases drawn from the international review carried out as part of the project. The review is divided into three parts: strategic direction, structures and processes.

3.1 Strategic direction

A clear long-term direction that integrates environmental, economic and social objectives is an essential building block for environmental policy integration. In many countries this direction is increasingly being provided through sustainable development plans and strategies, and by embedding sustainable development principles in national constitutions, legislation and government policies and operations. In order to ensure that national strategies and principles translate from statements of intent into action, strategies need to include measurable targets, clearly defined responsibilities for action, accountability mechanisms (monitoring, reporting and evaluation) and capacity building⁴⁰. In Australia environmental policy integration originally emerged as a concern within the land use planning framework in the 1970s. In the 1980s the emphasis shifted to whole of government coordination of environmental and development objectives and policies. Australian governments adopted a National Strategy for Ecologically Sustainable Development (NSES D) in 1992. The strategy includes core objectives and guiding principles for ESD. These objectives and principles are also included in an intergovernmental agreement on the environment, that defines matters of national environmental significance, and roles and responsibilities for the environment.⁴¹ The action plan in the NSES D has been overtaken by subsequent developments, but the NSES D goals and principles are widely referenced

37 The Australian government did not participate in the project, but some Australian government institutions play an important strategic role in environmental policy integration and the States and Territories. A few Australian government initiatives are also included in the review as examples of innovation or good practice.

38 These are taken from the review of international policy integration experience carried out as part of the project, see Appendix 3.

39 Listed on page 1 of this report.

40 OECD, *Sustainable Development: Critical Issues*, 102.

41 Council of Australian Governments, 'Heads of Agreement on Commonwealth and State Roles and Responsibilities for the Environment' (1997). <<http://www.deh.gov.au/epbc/about/agreement/>> at 11 August 2005.

and have been incorporated in many policies and pieces of legislation. There is increasing interest in sustainable development policy coordination by means of market mechanisms and decentralised governance processes.

In recent years Australian States and Territories have included environmental sections in their state plans, and/or adopted sustainable development strategies. Key features of these plans and strategies are summarised in Table 2. New South Wales, Victoria and South Australia have included measurable environmental targets in their state plans. Western Australia, Victoria and the Australian Capital Territory (ACT) have comprehensive sustainable development strategies, in Victoria this strategy is supported by a specific budget (\$200 million). New South Wales has achieved sustainability objectives by means of environmental and land use planning and a range of government programs. In 2006 NSW announced a State Plan "Environment for Living".⁴² The Northern Territory (NT) has pursued environmental policy integration and sustainability through individual programs rather than an overall plan or strategy. The New South Wales, Victorian and South Australian State Plans and the Victorian Environmental Sustainability Framework have similar features to some of the best designed European strategies, although they are less comprehensive.

TABLE 2
Sustainable Development Strategies in Australian Jurisdictions

Year	NSW (2006)	VIC (PS) 2001/2006	SA (P) 2004	WA (S) 2003	ACT (PS) 2004/2003
Goals and principles	✓	✓	✓	✓	✓
Action plan	✓	✓	✓	✓	-
Targets	✓	✓	✓	-	-
Timetable	✓	✓	✓	✓	-
Responsibilities	✓	✓	✓	✓	-
Resources	✓	✓	✓		-
Consultation	✓	✓	✓	✓	✓

Notes: **P** = Jurisdictional Plan including environmental goals, **S** = Sustainable Development Strategy.

The Australian Government and the States and Territories have a wide range of environmental and natural resources management thematic strategies covering topics such as greenhouse, biodiversity, water and waste management. These represent a considerable step forward towards ensuring that environmental policies and programs are internally consistent and take account of development strategies. However, there are few sustainability strategies targetting economic sectors, other than some components of urban planning, carbon and water trading, government financial and purchasing policy support for industry development, and state plans and greenhouse abatement strategies, covering matters such as energy efficiency and public transport.

Developers and sectoral interest groups constrain and weaken environmental policy integration. The 1998 OECD Environmental Performance Review of Australia found that while Australia had made progress in developing a framework for integrating environmental and economic policies, in many cases economic objectives take priority over environmental concerns. The most notable example is Australia's climate change policy where the economic

⁴² This plan gives priority to water, energy, clean air, greenhouse gas, native vegetation, biodiversity and natural resources, and the urban environment (jobs, housing affordability, transport, recreation and the arts).

importance of Australia's resource based industries has outweighed other considerations. The OECD recommended that 'Australia develop quantitative targets and timetables to further implementation of the NSESD, and consider improvements in institutional mechanisms to more fully and consistently integrate environmental considerations into economic decisions at all levels of government'.⁴³ However, this weakness in environmental policy integration in economic sectors such as agriculture, energy, transport and construction is common throughout the OECD⁴⁴.

Australia also provides examples of how political leadership can strengthen environmental policy integration. The South Australian Premier has announced a strong approach on climate change, that shows a degree of ambition comparable to leading overseas examples⁴⁵ (Box 2). This leadership is underpinned by legislation, and administrative change to ensure implementation. The Premier has established a new Sustainability and Climate Change Division in his department, charged with coordinated implementation of this approach.

Box 2 Climate Change Approaches in South Australia, NSW and Germany

In 2006, the South Australian Premier released an ambitious draft climate change strategy. This includes targets of reducing greenhouse gases by 60 per cent of 1990 levels by 2050, with 20 percent renewable energy by 2014, up from 4 percent in 2005. Draft legislation to give effect to these targets has been released for comment. The strategy also includes action plans for the community, industry, energy, transport, building and natural resources sectors, although the quantitative impacts have yet to be clarified. South Australia already has the lowest greenhouse intensity of mainland Australian States. This leadership is underpinned by administrative change and other action to ensure implementation. The Premier has established a new Sustainability and Climate Change Division in his department, charged with coordinated implementation of the strategy.⁴⁶ This policy is similar to the NSW approach where in 2005 the NSW Premier launched the NSW Greenhouse Plan which established similar targets, established the NSW Greenhouse Office and provided \$23 million over 4 years for innovative programs.

The German National Climate Protection Program was adopted in 2000 and is administered by the Federal Environmental Ministry. The Program lists 64 concrete measures for climate protection, which include ecological tax reform and promotion of cogeneration. The Federal Government has set up an inter-ministerial working group, which allocates responsibilities to the relevant ministries. There has been a strong stakeholder involvement in the Program, with industry committing to voluntary reduction targets. At the regional and local level more than 500 local communities have developed climate change strategies. Despite the potential offered by Germany's issue-oriented approach, climate protection is not a total success story. Expected cutbacks in subsidies for coal mining have been watered down, and a stronger support for co-generation has been blocked by the energy industry.⁴⁷

⁴³ OECD, *Environmental Performance Reviews: Australia* (1998) 29.

⁴⁴ M. Janicke and H. Weidner (editors), *National Environmental Policies - A Comparison of Study of Capacity-Building* (1997), 21.

⁴⁵ <http://www.climatechange.sa.gov.au/PDFs/climate%20change%20legislation.pdf> accessed 8 September 2006

⁴⁶ "In South Australia, you have probably one of the best examples of any state in the entire world where you see how leadership can make a tremendous difference in promoting renewable sources of energy," Al Gore <http://www.climatechange.sa.gov.au/> accessed 18 September 2006.

⁴⁷ European Environmental Agency, *Environmental Policy Integration in Europe: Administrative Culture and Practices*, EEA Technical Report No 5/2005 (2005)35

Many environment and sustainability initiatives fail to make their intended impact because they are resourced inadequately or not at all. The Victorian Environmental Sustainability Framework⁴⁸ provides an example of comprehensive capacity building and resourcing to underpin implementation. A sustainability implementation unit in the Department of Sustainability and the Environment, and interdepartmental committees have been established to oversee the implementation of sustainable development strategy and policy. An interdepartmental committee has also been established to oversee the sustainability of government operations including the green procurement framework. Guidance material and training is being provided to government agencies, and a sustainability education strategy and regional sustainability fora are aiming to increase knowledge and capacity outside government. Importantly, a budget of about \$200 million has been provided for the strategy.

Incorporation of principles for environmental sustainability in legislation can be an important tool for embedding environmental policy integration in government policy and practice. Legislation can set environmental baselines that provide incentives for the development of environmentally friendly products and practices. But legislative references only encourage environmental policy integration when they are linked with specific activities or processes. Although ESD principles have been expressed in over 120 Australian statutes, the manner of their inclusion is so far most often unsuited to instructing decision makers or aiding legal interpretation.⁴⁹

When legislation is linked to specific actions, the effectiveness of legislation depends on the strength of implementation. This in turn depends on the political commitment to override the objections of existing interests, and the provision of capacity and resources for monitoring implementation and enforcing statutory requirements. For example, the Australian Government's major environmental law, the *Environmental Protection and Biodiversity Conservation Act 1999* requires details of any action impacting on matters of national environmental significance to be referred to the national Minister of the Environment⁵⁰. But only a quarter of these actions have been deemed to require assessment under the Act, and only 2 (0.2 %) have been refused. There have been very few referrals by the agriculture, fisheries and forestry sector and in terms of preventing activities, or of requiring activities to undergo assessment. The Act has had little direct impact on the agricultural sector. Moreover, the national government does not have the necessary administrative systems and infrastructure to monitor compliance and enforce conditions⁵¹.

48 Further details are at <http://www.dse.vic.gov.au/ourenvironment-ourfuture/media.htm#fact> accessed 8 September 2006.

49 Paul Stein, 'Are Decision-makers Too Cautious With the Precautionary Principle?' (2000) 17 *Environmental and Planning Law Journal* 1, 3–23.

50 These are World Heritage areas, Ramsar wetlands, listed threatened species and ecological communities, astute migratory species, nuclear actions, the Commonwealth marine area and Commonwealth merged fisheries and national heritage places

51 A. Macintosh and D. Wilkinson, 'EPBC ACT: The Case For Reform' (2005) 10(1) *Australasian Journal for Natural Resources Law and Policy* 139 148-155.

3.2 Structures

The following section examines structural arrangements for environmental policy coordination and integration. These structures are summarised in Table 3. They can be divided into departments and agencies, and coordinating mechanisms. They can then be subdivided according to scope (horizontal or vertical integration), and function (ministerial, bureaucratic, stakeholder engagement and scientific integration). Both in Australia and internationally many of these bodies were created in order to prepare and implement sustainable development strategies or similar frameworks. These bodies normally involve administrative levels and, in some cases also engage ministers and heads of government. Structures do not operate in isolation, and their impact and effectiveness can only be understood as part of a set of interrelated mechanisms.

Agency models

Australian and overseas jurisdictions have used a wide range of agency models to promote environmental policy integration (Box 3). Broadly these can be divided into three categories: those led by the first Minister, those led by the environment Minister and hybrids involving mergers between environment and other agencies. Each model has pluses and minuses. Leadership by the first Minister gives additional legitimacy and authority to environmental policy coordination and helps to ensure that other ministers and their agencies support environmental and sustainable development strategies and policies. Specialised skills and experience with dealing with environmental related issues can be developed in such ministries. At the same time first ministers and their agencies tend to be highly responsive to public opinion and risk averse, which can lead to some narrowing or dilution of environmental objectives. Physical separation from other ministries may make it more difficult for central body to inform sectoral thinking and approaches, due to formal and informal coordination and communication difficulties. Unless handled carefully separation can also generate “turf wars”, particularly as environmental issues increasingly impinge on central decisions, and vice versa .

Location of environmental responsibilities in a multifunctional ministry has the advantage that it is easier for environmental issues to be put on the agenda in that particular area (for example urban planning or agricultural policy). Informal and formal communication and coordination can be increased and appreciation of environmental issues improved. Like the “first ministers” option this it may limit the scope of environmental activities because environmental concerns are relegated to second place when there are conflicts with other functions of the host ministry⁵³.

Location in the environment Ministry provides a strong skills base and motivation to achieve environmental policy integration. However there is sometimes lack of support from other agencies, especially when there is a lack of strong political and administrative backing for environmental policy integration.

The offices of sustainability in South Australia, Western Australia and the ACT provide examples of coordination led by the first Minister. The WA and ACT examples illustrate the positive impact of political and administrative leadership and the risk of loss of momentum when that leadership is weakened. In both Western Australia and the ACT the Premier/Chief

52 European Environmental Agency (2005b) 27

53 Ibid.

Box 3 Units and mechanisms to guide and support environmental policy integration

Germany	The State Secretaries' committee for sustainable development (Green Cabinet) is chaired by the Federal Chancellery. The Green Cabinet is responsible for interdepartmental management of a sustainable development process, and regularly reports to the Federal Cabinet. There is a Council for sustainable development, plus a advisory councils on environment, global change and land stewardship.
Netherlands	An inter-ministerial steering group guided the National Strategy for Sustainable Development process, under the guidance of the Prime Minister. Several Ministries and NGOs are involved in this and the National Environmental Policy Plan. The Ministry of Housing, Spatial Planning and the Environment coordinates implementation of the Action Program. There is a sub-Council of the Cabinet for environmental and spatial issues, which is chaired by the Prime Minister. There is no environmental advisory Council.
Norway	The National Committee for International Environmental Issues (NCIES) is chaired by the Ministry of Environment, and includes the Office of the Prime Minister, a number of ministries, private and non-government actors. The NCIES functions as a discussion forum, advisory Council and cross-central coordination body. There is also a Committee on Sustainable Development which includes representatives of local councils, major trade unions, and business associations and conservation organisations.
UK	There is a Sustainable Development Unit - a cross-government unit located within the Department for Environment, Food and Rural Affairs, and a sustainable development Task Force, including Ministers and chaired by the Secretary of State for the Environment, that reviews the Sustainable Development Strategy. The Sustainable Development Unit promotes the sustainable development strategy, providing guidance and integrated Policy Appraisal tool. There is an environmental advisory Council - the Royal Commission on Environmental Pollution.
Australia	The Environmental Sustainability Committee of Cabinet provides coordination at the Federal level. The Council of Australian Governments (COAG) provides inter-jurisdictional coordination on important multi-sectoral national issues such as greenhouse and water policy, and other ministerial councils (e.g. environment, natural resources management) handle more specific issues. The Department of Environment and Heritage generally leads interdepartmental coordination. The National Water Commission and Office of Water Resources in the Prime Minister's Department coordinate water policy.
New South Wales	The NSW State Plan establishes a new Cabinet Standing Committee on State Plan Performance comprising the Premier, Deputy Premier, Treasurer and two others. A Greenhouse Office in Cabinet Office coordinates climate change policy. A CEO Committee on Sustainability in Government plays an important role in coordinating and promoting sustainability in government agencies. The Natural Resource Management Commission advises the Government on NRM standards and targets and reviews catchment management plans. Catchment Management Authorities established in 2003 carry out natural resource planning, coordination, consultation and service delivery at the catchment level

Victoria	The Department of Sustainability and the Environment leads whole government coordination. DSE has responsibilities for climate change, water and planning. A special unit in the Department coordinates climate change policy. Interjurisdictional coordination is provided by COAG and other national Ministerial Councils. Government receives advice from a Sustainability Advisory Council, an Environmental Assessment Council, and a Catchment Management Council.
South Australia	Sustainable development policy is coordinated by the Sustainability and Climate Change Division in the Premier's Dept ⁵⁴ . Whole of government coordination is provided by the Office of Executive Committee of Cabinet. The Premiers Round Table on Sustainability plays an influential role in advising government.
Western Australia	Until recently sustainable development policy was coordinated by a Sustainability Policy Unit in the Premiers Department. This has now been moved to a newly created Department of Environment and Conservation. A Greenhouse unit continues to provide coordination of climate change policy. Whole of government coordination is provided by the Strategic Management Council and Inter-agency Committee of CEOs (large projects). The government receives advice from a Sustainability Round Table, Natural Resource Management and Regional Development Councils.

Minister took action to establish a State sustainability strategy, and established a unit in his department to coordinate implementation. Good progress in whole of government action to promote environmental sustainability was made in both jurisdictions over the period 2001-2006. In WA the Sustainability Policy Unit provided significant support and guidance to line agencies in implementing the WA sustainability strategy, and monitoring and reporting on progress. But when the WA Premier resigned in 2006, the unit was transferred to a new Department of Environment and Conservation, and it is unclear whether momentum for environmental policy integration and sustainable development will be maintained. Similarly, in the ACT following a restructuring of the Territory budget, the sustainability coordination function has been enlarged, the functions shifted from the first minister to a line department, and resources diminished, potentially weakening the capacity for effective monitoring and follow-through of the ACT sustainability strategy.

In South Australia the recent transformation of the Office of Sustainability in the Department for Environment and Heritage to a Sustainability and Climate Change Division in the Premier's Department provides an example of the ability for central agencies to provide greater impetus on whole-of-government issues. The Division is focusing on priority issues for Government, particularly in regards to climate change.

Experience in Victoria illustrates how environmental policy integration can be improved by merging functions, but momentum is changed when they are demerged. The consolidation of agriculture and environmental issues in the departments of Natural Resources and the Environment brought improved cooperation on some issues such as energy/coal policy and some agricultural issues. The new Department of Sustainability and the Environment has

⁵⁴ Created in 2006, replaced Office in DEH

the potential to bring about broader and stronger environmental policy integration because it combines natural resource, environment and planning policy. However the separation of agricultural policy functions has led to some loss of momentum in agricultural and environmental policy coordination, and there have been some difficulties in maintaining the strength and coordinating role of the planning functions in the new Department.

The Australian government has introduced some innovative structures to promote environmental policy integration. The Australian Greenhouse Office⁵⁵ was the world's first national agency devoted specifically to addressing climate change. The Agency brought together functions and staff from the environment and industry departments. Subsequently the Office was absorbed within the Department of Environment and Heritage. Two high level officials groups have been established to ensure continuing interagency and intergovernmental coordination⁵⁶.

The management of the Natural Heritage Trust (NHT) is another interesting example. The NHT is jointly managed by the ministers responsible for agriculture and the environment. A special joint implementation team including staff from the agriculture and Environment departments administers the program, but the departments have retained their separate entities. NHT programs are implemented on a decentralised regional basis, based on integrated regional development plans, thus the NHT aims to encompass both horizontal and vertical integration. Integrated catchment management in Australia is technically and administratively complex (Box 4). Experience so far illustrates the importance of clearly defining roles and responsibilities for organizations at all levels, and following this through with leadership to promote sustainable practices, fair decision making that gives appropriate weight to various interests, and capacity building and resourcing for regional bodies.

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55 Established in November 1997: Warwick L Smith, *Independent review of the Australian Greenhouse Office* (June 2002) para 2.1.

56 The Secretaries of the Departments of Environment and Heritage, and Industry, Tourism and Resources jointly chair the Secretaries Group on Greenhouse and the Council of Australian Governments' High Level Group on Greenhouse. The High Level Group is made up of senior officers of the State, Territory and Australian Governments.

57 Further information avail 'National Heritage Trust' (20 July 2005) <<http://www.nht.gov.au/>> at 11 August 2005.

TABLE 3
Structural Arrangements for Environmental Policy Integration in Australian Jurisdictions

	NSW	VIC	SA	WA	ACT	NT
Lead Minister	Shared responsibility	Deputy PM	Premier	Environment ⁵⁸	Chief Minister	Natural Resources, Environment and Heritage
Department	Environment and Conservation (2003), Natural Resources (2006) ⁵⁹ , Department of Planning, Energy Utilities and Sustainability (2006)	Sustainability and the Environment (2003) ex Natural resources and the Environment	Environment and Heritage (2000), Water, Land and Biodiversity Conservation (2002)	Environment and Conservation (2006)	Chief Minister	Natural Resources, Environment & the Arts (2005)
Sustainability Office	No, but Greenhouse Office in Cabinet Office		Division of Sustainability and Climate Change In Premier's Dept ⁶⁰	Sustainability Policy Unit , Greenhouse Unit ⁶¹	Office of Sustainability (2001-2006)	
Cabinet committees ⁶²	Cabinet Standing Committee on State Plan Performance; Environment, Rural and Natural Resources	Policy and Strategy, Economic and Sustainable Development	Informal inter-ministerial coordination	Expenditure Review Committee, Social Policy, Regional Policy, Water Resources; Health, Environment and Industry Sustainability	Informal inter-ministerial coordination	Informal inter-ministerial coordination
Inter-agency coordination bodies	CEO Committee on Sustainability in Government		Office of Executive Committee of Cabinet	Strategic Management Council, Inter-agency Committee of CEOs (large projects)	Informal inter-agency coordination	Informal inter-agency coordination
Advisory	Natural Resources Advisory Council	Sustainability Advisory Council, Environmental Assessment Council, Catchment Management Council	Premiers Round Table on Sustainability	Sustainability Round Table, Natural Resource Management and Regional Development Councils	Sustainability Expert Reference Group	
General Consultation	Catchment Management Authorities		Community Cabinet meetings	Office of Citizens and Civics		Community Cabinet meetings
Other		Commissioner for Environmental Sustainability		Office of Development Approvals and Coordination	Commissioner for the Environment	

⁵⁸ Includes greenhouse.

⁵⁹ Planning, Infrastructure and Natural Resources merged 2004, separated 2006

⁶⁰ Created in 2006, replaced Office in Department of Environment and Heritage.

⁶¹ In Premier's Department (2001-2006), now in Department of Environment and Conservation

⁶² The two Territories have relatively small administrations and rely on informal inter- ministerial and inter-agency coordination mechanisms

Box 4 Regional Organisations for Catchment Management in Australia

Australia has chosen a regional delivery model for sustainable natural resource management programs. Regional delivery arrangements provide an institutional mechanism linking state and local activities, use a consultative approach⁶³ and support the activities of local groups.⁶⁴ Structural arrangements vary between jurisdictions, from independent statutory organisations, to state guided coordination groups. In all cases integrated regional in Australia entails substantial institution building with a number of challenges. In some cases roles and responsibilities are unclear, and there are shortfalls in communication between agencies and catchment groups⁶⁵. In some States regional organizations still have limited autonomy and are subject to strong influence from the federal and state government.⁶⁶ Funding and capacity building efforts vary widely between regions. In some States environmental policy integration is constrained by powerful bureaucratic traditions and cultures⁶⁷, and landowners wishing to maintain current land and water uses⁶⁸. In this context, “just decision-making processes” need to be put in place⁶⁹ together with improved arrangements to reconcile conflicting interests.

Coordinating mechanisms

Coordinating mechanisms cover either ministers or their officials, and can be divided into intergovernmental (vertical) coordination, and interagency (horizontal) coordination. Effective coordination with stakeholders is also important. The key Australian bodies for intergovernmental environmental policy coordination and integration are the Commonwealth/State/Territory Ministerial Councils⁷⁰. These Councils are an important forum for discussion of inter-jurisdictional issues. There has been some improvement in communication between these councils but more could be done to clarify and restructure their roles and responsibilities and to develop long-term planning and strategies. In particular, individual councils should ensure that they have clearly specified objectives with respect to ESD implementation, and that they are meeting them⁷¹.

63 Although there are concerns about whether catchment organisations adequately represent the full range of interested parties - Curtis and Lockwood (2000) 70.

64 Ibid 70

65 J Bellamy et al, 'Integrated Catchment Management, Learning from the Australian Experience for the Murray-Darling Basin' (CSIRO Sustainable Ecosystems, 2002) 35-40.

66 The potential for influence is increased, but at the same time confused by the fact that separate groups have been established in some regions to liaise with the central government on specific programs such as the Natural Heritage Trust, and the National Action Plan for Salinity and Water Quality.

67 D. Farrier et al, 'Integrated Land and Water Management in New South Wales: Plans, Problems and Possibilities' (1998) *Australasian Journal for Natural Resources Law and Policy* 185.

68 I Reeve, 'Tiptoeing Round of the Slumbering Dragon: Property Rights and Environmental Discourse in Rural Australia' (University of New England, 1999) 16-17.

69 G. Syme, 'Why Don't We Talk Social Sustainability When It Comes To Sharing the Water' (Paper presented at the National Water Conference 2003, Melbourne, 2003) 14.

70 The most relevant Councils cover environment protection and heritage; natural resource management; minerals and energy; primary industries; mineral and petroleum resources, energy; and transport <http://www.coag.gov.au/compendium/compendium.pdf> accessed on 22 September 2006.

71 Productivity Commission (1999), 106-108.

Box 5 Examples of horizontal inter-ministerial coordination mechanisms

In the UK the Cabinet Environment Committee has formal responsibility for sustainable development policy. The Green Ministers Committee, a Cabinet subcommittee, has responsibility for promoting integration of sustainability development within the public sector, and encourages environmental appraisals of policy. Green ministers have set targets for energy efficiency, greener transport and waste recovery and helped departments to adopt environmental management systems and promote environmentally friendly procurement⁷². The Cabinet Office (Cabinet Strategies Unit and Performance and Innovation Unit) aims to ensure that sustainable development issues are integrated in the machinery of government. The Sustainability Unit (located in the Department of Environment, Food and Rural Affairs) supports the Green Ministers, promotes the sustainable development strategy and provides guidance on integrated policy appraisal.⁷³

In Germany the State Secretaries' Committee for Sustainable Development (Green Cabinet) is chaired by the Federal Chancellor. The Green Cabinet is responsible for interdepartmental management of the sustainable development process and regularly reports to Federal Cabinet. A Cabinet Committee on Environment and Health is backed by a standing committee of Directors General from the various ministries. An inter-ministerial committee on climate protection was established in 1990. Specific Interministerial Committees (IMAs) work on topics such as forest damage or climate protection.

Both the Australian government and some States have specific Cabinet committees that deal with environmental and sustainable development issues. These committees can potentially play a powerful role in environmental policy integration. The proceedings of these committees are generally confidential and there has been little evaluation of their impact – as is the case with all Cabinet Committees in Australia. The role and purpose of these Committees is generally to identify the need for natural resource policies, take decisions about integrated policies, allocate Budget funding consistent with government priorities, and establish mechanisms (such as agencies or programs) to implement Cabinet's natural resource management decisions. This is a fundamental role without which policy integration is very difficult. There is no Australian equivalent of the strong coordinating role played by some European Cabinet coordination Committees such as the UK Green Ministers Committee and the German State Secretaries committee for Sustainable Development (Box 5).

There are some interesting high-level interagency coordination mechanisms in Australia. In South Australia the Executive Committee of Cabinet (ExComm) has overall responsibility for implementation of the State Plan. A 'lead agency' has been assigned to every target in the plan. Chief executives of those agencies have been required to produce detailed 'implementation plans' and submit them to ExComm for consideration, amendment and

72 In May 2005 the Green Ministers subcommittee was replaced by the 'Ministerial Sub-Committee on Sustainable Development in Government (EE(SD)) It is the successor to the Ministerial Cabinet Sub-Committee of Green Ministers. The new Committee will help to embed sustainable development in central government departments and their agencies.' : see <www.sustainable-development.gov.uk/delivery/integrating/ministers.htm> 31 July 2005

73 A. Ross (2005) 129. management; minerals and energy; primary industries; mineral and petroleum resources, energy; and transport <http://www.coag.gov.au/compendium/compendium.pdf> accessed on 22 September 2006.

approval. Chief executive performance agreements contain specific references to relevant plan targets. A lead Minister has also been assigned for each target. ExComm includes representatives of two of the Government's peak advisory bodies, the Economic Development Board and the Social Inclusion Board, as independent advisors, but the chair of the Sustainability Round Table does not attend.

A variety of high-level coordinating mechanisms were established in NSW in the 2000s. These are likely to realign as a result of the NSW State Plan published in November 2006 which specifically establishes a new Cabinet Standing Committee on State Plan Performance; a Program Management Office to monitor all agency progress against the State Plan; a new Budget Process where agency Results and Services Plans and Business Plans will need to align with the State Plan; and CEOs with a "leading" role in implementing elements of the State Plan will be accountable both to their Minister and the Premier specifically by requiring CEO Performance Agreements to be approved by the Premier and Director General of the Premier's Department. These new arrangements are likely to modify the membership and roles of the existing coordination mechanisms such as the monthly Chief Executive Committee meetings, the 7 CEO Cluster meetings, and the CEO Group on Sustainability in Government.

Advisory bodies

Natural resource management and sustainable development often involve complex cross sectoral issues, and a wide range of stakeholders. Governments, industry and community organizations were recognised as key players in the implementation of Agenda 21. The 2002 World Summit on Sustainable Development called for further establishment and enhancement of National Councils for Sustainable Development (NCSO) and other coordinating structures⁷⁴. Stakeholders can provide leadership, demonstrate best practice, provide important information to fill gaps in analysis, and contribute to innovation and learning. Stakeholder engagement can encourage policy integration, pre-empt or resolve conflicts and overcome implementation bottlenecks. If key stakeholders are not engaged they may block new initiatives.⁷⁵

Over half of the OECD countries⁷⁶ have national advisory bodies. There are wide variations in the form and function of these bodies. These variations include their independence from government (government members), the independence of their members from their home organizations, and the balance between traditional stakeholders (business, trade unions) and new actors (environmental and social NGOs)⁷⁷. There has been very little critical analysis and evaluation of these bodies, but there is evidence that they can be a very useful integrative mechanism under certain conditions - wide membership, adequate status within government, strategic links to other relevant bodies, a clear and lasting mandate and sufficient human and financial resources⁷⁸. For example, the Irish National Sustainable

74 World Summit on Sustainable Development: Plan of Implementation, advance unedited text, September 2002, paragraph 147, page 53

75 A. Ross (2005), 117.

76 The only EU (25) countries that do not have sustainable development policy integration or sustainable development advisory councils are Denmark, Greece, Iceland, Italy, Lithuania, the Netherlands, Spain and Switzerland, European Advisory and Sustainable Development Advisory Councils, 'Sustaining Sustainability: A Benchmark Study on National Strategies' (2005)

77 Ibid 45-46.

78 For further analysis, see evaluations of Councils for Sustainable Development in Belgium, Canada, Ireland and the UK in R. Connor and S. Dovers., Institutional Change for Sustainable Development (2004), 138-151.

Development Partnership (Comhar), has provided valuable advice on carbon taxation, rural housing and sustainable development principles⁷⁹. The Canadian National Round Table on the Environment and the Economy has achieved measurable success in work relating to energy efficiency and climate change, greenhouse gas emissions trading, sustainable land management, green budget reform and green procurement⁸⁰.

All of the States and the ACT have established high-level advisory bodies including industry and community representatives to advise their governments and in some cases to promote environment policy integration. The aims of these bodies vary. For example the South Australian Premier's Round Table on Sustainability operates in a relatively public manner and seeks to influence public debates, whereas the Victorian Sustainability Advisory Council is a relatively private body that acts as a sounding board for Ministerial ideas. The Western Australian Sustainability Roundtable advises the Premier on the development and implementation of collaborative initiatives, mechanisms and methodologies to support sustainability and ways to increase community awareness. The Roundtable has initiated and presented to government reports on sustainability indicators, and sustainability communication. As with similar overseas arrangements it is difficult to assess the value added by these bodies. Transparent information about their processes and outcomes builds their credibility and contributes to their capacity to bring about change.

Scientific advisory bodies

Most OECD countries have established systems for measuring and monitoring environmental information. However few countries have established strong and independent scientific agencies with sufficient capacity and credibility to have a sustained influence on the integration of environmental considerations into national policies. The National Institute of Public Health and Environmental Protection of the Netherlands and the German Council of Environmental Advisers are two notable examples of influential national scientific bodies that make an effective contribution to sustainable development policy integration (Box 6).

In Australia there are many government research and development bodies, notably the Commonwealth Science and Industrial Research Organisation, the Rural Research and Development Corporations, including Land and Water Australia, that carry out and coordinate environmentally relevant research. There are also many ad hoc mechanisms that link environmental science to policy, but there is a lack of systematic coordination between environmental research and government decision-making. The Prime Minister's Science, Engineering and Innovation Council has the potential to play an influential role in the integration of environmental science into government decision-making, but it only meets twice a year and rarely discusses environmental sustainability. There remain many gaps in knowledge about Australia's ecosystems, and there are no national sustainable development targets, or systematic monitoring of progress to provide feedback for policy development⁸¹.

79 Ibid 143.

80 Earth Council, 'National Experiences of Integrative, Multi-Stakeholder Processes for Sustainable Development' (2000), 37.

81 A Campbell, 'The Australian Natural Resource Management Knowledge System' (2006). Land & Water Australia, Canberra. See also Venning, J. and Higgins, J. (eds). 2001. *Towards sustainability: emerging systems for informing sustainable development*. Sydney, UNSW Press.

Box 6 Scientific advisory bodies

The National Institute of Public Health and Environmental Protection of the Netherlands ('RIVM'),⁸² a national scientific institute, provides the government with information and feedback on its health and environmental planning and policies. RIVM publishes annual national environmental balance reports that describe trends in environmental conditions, evaluate the effectiveness of environmental policies, and monitor the achievement of stated policy goals.⁸³ RIVM also undertakes four-year environmental outlooks that support environmental planning by enabling forecasts of environmental quality under various economic and sectoral scenarios.⁸⁴

Germany has established two independent scientific advisory bodies that provide important input to policy processes. The German Council of Environmental Advisers (SRU) publishes authoritative biannual critical assessments of the environment, which have become key references for environmental policy discussion.⁸⁵ The Scientific Advisory Council of the Federal Government on Global Environmental issues (WGBU) systematically analyses different types of global change and publishes the results of its work annually.⁸⁶

The Australian Prime Minister's Science Engineering and Innovation Council (PMSEIC)⁸⁷ provides advice to the Government on important issues in science, technology, and engineering including as they relates to economic growth, employment, new industries and sustainable development of new resources. PMSEIC provides a forum for leading scientists to brief and hold discussions with government on emerging scientific issues.

Evaluation and Audit Bodies

While many countries have undertaken some research on aspects of sustainable development, and on environmental problems and risks, few countries have established strong sustainability review capacity - in most cases evaluation only occurs on an ad hoc basis and is usually restricted to officials. Canadian (and New Zealand) experience indicates that ongoing performance assessment and reporting by independent Commissioners for the Environment and/or Sustainable Development help to maintain public attention and encourage debate that balances short and long-term, economic social and environmental perspectives through political cycles⁸⁸ (Box 7). The Victorian Commissioner for Environmental Sustainability and the ACT Commissioner for the Environment, have a narrower (environmentally focused) mandate than the Canadian and New Zealand Commissioners and it is too soon to assess their impact.

82 Rijksinstituut voor Volksgezondheid en Milieu ('RIVM').

83 http://www.rivm.nl/en/milieu/natuurbalans_verkenning/nb2004_summary.jsp accessed on 10 August 2005 included a copy of the report.

84 An English version of the 2004 Outlook is at <http://www.rivm.nl/bibliotheek/rapporten/duve05001.html> accessed 10 August 2005.

85 An English version of the 2004 Outlook is at http://www.umweltrat.de/english/edownloa/envirrep/UG_2004_summary.pdf accessed 6 December 2005.

86 C. Beuermann, 'Germany' in W. Lafferty and J. Meadowcroft (eds), *Implementing Sustainable Development: Strategies and Initiatives in High Consumption Societies* (2000) 85-96.

87 Further details are at http://www.dest.gov.au/sectors/science_innovation/science_agencies_committees/prime_ministers_science_engineering_innovation_council/#The_Prime_Minister accessed on 20 September 2006.

88 OECD, 'Environmental Performance Reviews: Canada', [2004], 104.

Box 7 Environment and Sustainable Development Audit Bodies

The Canadian Commissioner of the Environment and Sustainable Development was established in 1995 under the Auditor General Act.⁸⁹ The Commissioner reviews departmental sustainable development strategies and their implementation, and audits the Federal Government's management of environment and sustainable development issues, as well as carrying out studies aimed at improving management practices and implementation, and monitoring citizens' petitions.⁹⁰ The Commissioner presents a yearly report to Parliament.

In 1987 New Zealand established an independent Parliamentary Commissioner for the Environment (PCE) - the first country in the world to do so. As in Canada the office of PCE is established by legislation, and the Commissioner reports direct to Parliament. The PCE assesses the performance of environmental management in New Zealand, and provides advice and information to help maintain and improve the quality of the environment. The PCE has statutory independence and wide powers of investigation, and provides a long term perspective that makes connections across policies, and agency and sector groups.

The UK House of Commons Environmental Audit Committee (EAC) assesses the Government's performance in integrating sustainable development concerns into policy and decision making.⁹¹ The EAC reports annually on environmental dimensions of taxation and expenditure and evaluates departmental performance in policy appraisal, operations and environmental reporting.⁹² The EAC audits performance against targets and can requisition evidence from any department. It can also review regional bodies and consider the impact of central government policies on local authorities' ability to deliver sustainable development locally. This strengthens environmental monitoring in the UK.

One potential innovation in this area would be to augment state of the environment reporting with environmental outlooks (modelled on the OECD's 2001 Environmental Outlook)⁹³. Such outlooks would allow improved consideration of long term issues in current policy development by prompting more sophisticated assessments of environmental trends and risks and their implications for economic and social outcomes.

⁸⁹ *Auditor General Act 1995*, c. 43, s. 5.

⁹⁰ Citizens can petition the Auditor General in writing about matters that are the responsibility of specific departments and agencies required to prepare and implement sustainable development strategies. Ministers are required to respond to these petitions within a set timeframe. OECD (2004) 103.

⁹¹ Among its recent reports are *Housing: Building a Sustainable Future* (2005); and the *Environmental Audit - Tenth Report* (2003).

⁹² OECD, *Environmental Performance Reviews: the United Kingdom* (2001) 141. A review of EAC reports, environmental audits, minutes etc reveals the breadth of its operations. These are available at <<http://www.parliament.the-stationery-office.co.uk/pa/cm200203/cmselect/cmenvaud/472/47202.htm>> 31 July 2005.

⁹³ OECD, *OECD Environmental Outlook* (2001).

3.3 Processes

Administrative processes provide the backbone of environmental policy integration. These processes evolve relatively slowly compared with policies and structures, but usually have a longer life than the political cycle. Key processes include analysis of the environmental impacts of policies and programs, integration in budget processes, monitoring, review, evaluation and feedback. These processes are not confined to environmental policy integration; they are general features of good practice policy-making⁹⁴. However, analysis of environmental impacts does pose some special challenges because of gaps in understanding of ecosystems functioning and the impact of human activity on the environment, difficulties in valuing biodiversity and ecosystem services, and natural system time scales that are generally much longer than administrative cycles. As well as ensuring that their decisions are based on good analysis, administrations can also play a leadership role in environmental policy integration by ensuring that the operations of government agencies are environmentally friendly i.e. by “greening of government”.

State and Territory sustainability assessment, reporting and evaluation, and greening of government activities are summarised in Table 4. At both the national and state level of government, analysis of the environmental impacts of policies and programs is weak. An inquiry by the Productivity Commission on the implementation of ecologically sustainable development by Australian government departments and agencies concluded that:

“A significant impairment to improved ecologically sustainable development policy-making practices is a failure to undertake the action of analysis - meaning that significant potential short and long-term costs and benefits are not considered. At the national level departments and agencies do not always satisfactorily apply existing ex ante assessment mechanisms such as regulation impact statements and environmental impact assessment when they are formally required. Monitoring the effectiveness of policies and programs aimed at implementing ecologically sustainable development does not appear to be undertaken routinely by departments and agencies, and there appeared to be few examples where the results of monitoring activities are incorporated into policy or program revisions via feedback mechanisms. A tendency to act on problems which are immediately visible together with a shortage of required data and information on long-term problems, means that departments and agencies can fail to give adequate considerations to issues likely to be a problem in the long-term⁹⁵”.

⁹⁴ Productivity Commission (1999), xxiii.

⁹⁵ Ibid xxiii and xxvii.

TABLE 4

Processes for Environmental Policy Integration in Australian Jurisdictions

	NSW	VIC	SA	WA	ACT	NT
Policy and Program Assessment	Assessment under land use planning and development controls	Summary assessment in Cabinet submissions	Assessment where relevant in Cabinet submissions (DPC Circular No 19)	Environmental legislation provides for assessment of environmentally significant plans, programs, policies and changes in land use		Cabinet Submissions
Integration in Budget		Alignment of budget bids and State plan targets	Budget bids need to show contribution to SA State Plan targets			
Sustainability reporting	Landcom sustainability report	Biennial report by DSE on Sustainability Framework interim targets, full report 2012.	Biennial monitoring SA State Plan targets	State agencies required to report (in Annual Report) on actions under State Sustainability Strategy	Measuring Our Progress: Canberra's Journey To Sustainability 2004	Pastoral Lands Condition Report
State of environment reporting	Triennial	5 yearly (or less)	5 yearly Annual (Green Print) report	Draft 2006 report released for comment - last report 1998	Triennial	First report to be completed in 2007. Then reporting on 5 yearly basis.
Evaluation and Accountability	Natural Resources Advisory Council	Premiers Department implementation unit monitors actions on State plan	ExComm monitors progress with State plan	Potential role for Auditor General		Potential role of the newly formed Environment Protection Agency
Greening of Government						
<i>Scope</i>	Waste reduction, purchasing energy, greenhouse, water buildings, transport emissions	EMS's including energy, water waste, paper purchasing	Under review	Sustainability code of practice: including energy, water, waste, vehicles, buildings, land	Energy, buildings, water	Energy, waste, water
<i>Specific Targets</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Responsibility</i>	All Agencies, lead by CEO Sustainability in Government Group	Agencies and Commissioner for Environmental Sustainability	Under review	All Departments – other Agencies encouraged to participate	Energy, buildings, water	Lead Department of Natural Resources, Environment and the Arts (NREA)
<i>Monitoring Reporting</i>	Dept Environment and Conservation - waste and recycling: Commerce NSW - purchasing and buildings. Greenhouse Office - GHG. DEUS - energy, water.	CES reports to the government and parliament	Under review	CEOs/ Annual reports	Office of Sustainability (energy)	NREA & EPA

Environmental assessment processes

Governments use a number of processes to examine the environmental impact of legislation, policies and public and private projects. The three main types of process are strategic environmental assessment, integrated assessment within regulation impact analysis and environmental impact analysis of projects. Strategic environmental assessment (SEA) is a systematic evaluation of the environmental impact of a plan, policy or program from the formulation of objectives through program design, resource assignment and project development. Regulation impact analysis is practiced in all OECD countries. It is mainly aimed at reducing regulatory burdens, but a few countries⁹⁶ have begun to experiment with integrated analysis including ex ante environmental assessments. The most common form of environmental assessment examines the environmental impact of public or private projects. This is practiced by all OECD countries with varying degrees of rigour, openness and transparency. It is generally managed by environment departments. Strategic environmental assessment and integrated analysis are the most relevant from the point of view of environmental policy integration.

The authorization for SEA varies from legislation (the Netherlands, Australia) and administrative orders (Canada, Denmark) to administrative guidelines (UK). SEA varies from simple checklists to complex modelling of impacts. SEA is often carried out by sectoral agencies, and can be expected to lead to the inclusion of environmental specialists in central decision-making. SEA is complicated by the complexity of ex ante assessments and the lack of experience of government officials. A third of OECD countries have introduced some form of SEA⁹⁷, and this number can be expected to increase in response to an EU directive requiring member states to introduce SEA⁹⁸.

Box 8 Strategic environmental assessment in Canada

In Canada the 1999 Federal Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals requires a strategic environmental assessment (SEA) when a proposal requires approval of a minister or Cabinet, and when its implementation may result in important environmental effects. The Canadian Environmental Assessment Agency, in co-ordination with other departments and agencies, has developed guidelines on implementing the Directive, and other guidance materials, including case studies. SEA has been an influential tool in the development of transportation policies. As a result of a SEA for the proposed Strategic Highway Infrastructure Program, the "Intelligent Transportations System" component of the program was significantly enhanced to increase traffic efficiency and reduce air emissions. Pursuant to Canada's 2001 Framework for conducting environmental assessments related to trade negotiations, environmental considerations have been integrated into the ongoing development of such negotiations, contributing to more open decision-making within the federal government by engaging representatives from other levels of government, the public, the private sector and NGOs⁹⁹.

⁹⁶ Denmark, the Netherlands, Finland, Sweden and the UK. These countries all have separate environmental appraisal procedures. J. Hertin et al, 'Ex-Ante Sustainability Appraisal of National-level Policies: A Comparative Study of Assessment Practice in Seven Countries' (Paper presented at the "Greening of Policies? Interlinkages and Policy Integration". Berlin, 2004) 2.

⁹⁷ Denmark, the Netherlands, Finland, Norway, the UK and the US Jacob and Volkery, 300-301 plus Canada and Australia Robyn Connor and Stephen Dovers, *Institutional Change for Sustainable Development* (2004) 162

⁹⁸ Ibid.

⁹⁹ OECD (2004)105

Few countries have introduced comprehensive environmental assessment of government policies or legislation. Box 8 provides an example. The UK developed a system for environmental policy appraisal with a guide for public servants called *Policy Appraisal and the Environment*. There was only limited progress towards that objective up to 2003 - only a limited number of agencies carried out appraisals¹⁰⁰. In 2004 the UK made cost-benefit analysis, including environmental assessment, mandatory for all significant legislative initiatives with the coordination and quality assurance by the Cabinet Office.

The Netherlands provides an example of the use of regulation impact analysis to improve environmental assessment of government. Environmental (E-) and a Business effect (B-) tests have been introduced with the support of a "Joint Support Centre for Draft Regulations". The E- test requires assessment of the impacts of proposed legislation on energy and raw material use, waste, emissions and effects of physical space.¹⁰¹ In Canada cost-benefit analysis including health and safety and environmental impacts is required; a comprehensive analysis is required for any proposal in excess of \$10 million. A number of guidelines and manuals give concrete advice on the process and tools, and training and regulatory best practice guidance is provided to departments and agencies¹⁰².

In Australia the use of SEA is increasing but is still quite limited. SEA of nationally managed fisheries is required under the *Environmental Protection and Biodiversity Conservation Act 1999*¹⁰³, and SEA of National Environmental Protection Measures is required under the *National Environment Protection Council Act 1994*. In the States ex ante environmental impact assessment is generally linked with the planning and development project approvals system. Western Australia has assessment process for planning schemes and "strategic proposals" (large projects), Tasmania has a process for assessing planning schemes and directives that apply to such schemes. Victoria and Tasmania carry out assessment of environmental protection policies. New South Wales assesses fisheries management schemes¹⁰⁴.

Integrated analysis of environmental, economic and social impacts of policies and programs, for example in Cabinet submissions, is very limited at the national, state and territory level. The Office of Regulation Review (ORR), coordinates the preparation of regulation impact statements (RIS) at the national level, including intergovernmental regulatory activity. The guidelines for regulation review require consideration of the impacts of regulatory proposals on "environmental amenity"¹⁰⁵. Under this definition less than 10% of regulatory proposals have been found to have any environmental impact¹⁰⁶. Possible amendments are under consideration to strengthen the guidelines by specifying that RIS assessments should include short and long term changes to environmental and social benefits and costs, and provide for improved screening and analysis of proposals. In the absence of a clear and complete

100 House of Commons Select Committee on Environmental Audit, '13th report' (2003)

101 Hertin et al, (Paper presented at 4-5

102 Ibid 9.

103 *Environment Protection and Biodiversity Conservation Act 1999* ss 147-54. SEA only optional for activities other than fisheries

104 S Marsden and J. Ashe, 'Strategic Environmental Assessment Legislation in Australian States' (2006) (pending) *Australasian Journal of Environmental Management*. See also Marsden, S. and Dovers, S. 2002. Strategic environmental assessment in Australasia. Sydney, Federation Press.

105 Office of Regulation Review, 'A Guide to Regulation' (1999) Page B4 paragraph 2 of the guidelines specify that the assessment of the costs and benefits of each option should include possible changes to environmental amenity, health and safety outcomes and other non monetary outcomes.

106 Personal communication with the ORR.

description of what should be included in the RIS analysis, the inclusion and treatment of social and environmental impacts of regulatory change will remain a matter of ad hoc case by case negotiation between the ORR, regulators and parties affected by regulation. This is unlikely to produce systematic or consistent analysis, and may lead to uncertainty for regulators and business.

Green Budgeting

Green budgeting involves identifying the environmental impacts of expenditure programs and proposals, and presenting policy alternatives with different degrees of environmental impact. This can lead to better integration of economic, social and environmental considerations in policy development and implementation. At the beginning of 2004 tools for green budgeting were applied in six OECD countries¹⁰⁷. Box 9 outlines progress in Norway, Denmark and the UK. Integrated analysis of government budgets is not widely practiced in Australia, although there have been recent moves in New South Wales, Victoria and South Australia to align budget proposals with State Plan targets. In NSW all new proposals for additional expenditure by agencies are required to show how outcomes will contribute to State Plan priorities and funding will be based on those contributions. The Western Australian Office of Development Approvals Coordination coordinates approvals for large projects on a whole of government basis. So far this office has largely operated to streamline the approvals process, but it has the potential to encourage improved sustainability analysis.

Box 9 Green budgeting initiatives in Europe

In Norway, all ministries must assess the expected environmental implications of their policy proposals and state these in their budgets. The Ministry of the Environment must be consulted in these preparations. The state budget also specifically addresses the environment through a chapter listing the environmentally-relevant expenditures of all ministries.

In Denmark the greening of government operations was a major focus of the SEA carried out on the 1998 budget. Green auditing has been completed for, among others, the Ministry of Environment and Energy, the Ministry of Defence, the Ministry of Foreign Affairs, State-owned forests and the national railways. Out of 400 public institutions, 80 per cent have sent a plan of action to the Danish EPA. These plans include matters such as office machines, computing equipment, office furniture, cleaning agents and paints, and catering equipment, transportation equipment and food.

In the UK biennial Spending Reviews set fixed three-year departmental expenditure limits. Public Service Agreements (PSA), define the key improvements to be made using these resources. Departmental work programs have to set out how and in which particular areas the three pillars of sustainable development impacts — social, environmental and economic — would need to be considered by the department in defining its priorities and developing proposals for inclusion in the departmental submission. These are then assessed to ensure that sustainable development principles underpin the spending review outcomes in terms of both the spending commitments made and the PSA targets set.

¹⁰⁷ Canada, Denmark, Norway, the Netherlands, Japan and the UK Jacob and Volkery, 301

Engagement and consultation with stakeholders

Processes to consult and engage with stakeholders are effective when they integrate relevant viewpoints and information, and avoid unnecessary gaps and duplication. Good practice principles facilitating effective coordination and stakeholder input include; comprehensive identification of stakeholders; opportunity for inputs and negotiation; feedback to participants on decisions taken; access to information; and institutionalised processes. However, it is challenging to ensure adequate consultation with interests such as environmental and consumer groups that have very diffuse membership, and depend on private financial donations and voluntary inputs of labour and time¹⁰⁸.

Box 10 Integrated assessment and consultation processes in the Northern Territory

The Northern Territory Parks and Conservation Masterplan provides a framework for enhancing biodiversity conservation in the Northern Territory by bringing together key decision makers and stakeholders to integrate aspirations of conservation and development. The plan includes three strategic approaches:

- Setting priorities for biodiversity conservation
- Establishing partnerships in the conservation and sustainable use of biodiversity
- Providing new directions for the Territory's parks and reserves.

The Masterplan has a fifteen year implementation time horizon. The successful implementation of the plan will depend on adequate funding of the plan's recommendations, and cross-sector and cross-agency coordination and cooperation in implementing the plan. Reservation of land and its management for conservation, needs to be supplemented by strategic and coordinated management of threatening processes across all land tenures, recognising that the pastoral industry (which represents approximately 46% of lands) depends on the condition and productivity of soil, water and vegetation. The Plan also focuses on , strengthening the capacity of Indigenous communities to manage environmental threats. Indigenous lands represent an additional 46% of Northern Territory lands.

The Daly River Community Reference Group (CRG) was established by the Northern Territory Government in December 2003 to produce a framework for ecologically sustainable development of the Daly Region. The CRG faced difficulties in considering the views of all the important interests (including Indigenous views) in a large catchment in a limited timeframe, and reconciling disagreements among stakeholders. The CRG (i) identified the most significant management issues (ii) proposed thresholds for minimum flows in the Daly River and (iii) developed approaches for applying adaptive management principles to management of the focus area. The CRG experience suggests some lessons for community engagement to promote productive investment in natural resource management, in the Daly Region and elsewhere. These include:

- 1 setting realistic, "bounded" objectives
- 2 allowing sufficient time
- 3 actively facilitating engagement of different groups in ways suited to their circumstances, including engagement outside larger formal forums

¹⁰⁸ The challenge of gaining effective representation of environmental interests was underlined in this project. Two sustainability NGOs the Australian Collaboration and the WA Collaboration were included among the project participants, but neither was able to participate actively in project consultations because of other commitments, and lack of resources and time.

- 4 matching resources to the scale of the tasks
- 5 retraining of NRM bureaucrats and reorganisation of related structures and job profiles
- 6 actively building capacity in regions
- 7 being clearer about the purpose of the engagement (sharing information, expediency, better decisions, building regional capability, devolving decision-making in specified areas).

The positive outcomes from the CRG process and evidence of the benefits of good engagement in many other settings would appear to warrant additional investment to improve engagement processes¹⁰⁹.

Most new strategies and policy proposals are subject to some degree of consultation and efforts to engage stakeholders and the public. For example, in Australia consultative committees are established for each major Commonwealth fishery, and jurisdictions have undertaken significant public consultation on natural resource management and water reform, especially via structures such as Catchment Management Authorities in NSW and Victoria. As part of its commitment to an integrated, consolidated natural resources management framework, South Australia undertook a comprehensive consultation process on what is important and how natural resource management should be delivered. The outcome of this process was the Natural Resources Management Act 2004, which came into effect on 1 July 2005 and established eight regional Natural Resources Management Boards.

Implementation of biodiversity conservation initiatives integrating multiple issues and stakeholder groups over large scales in the Northern Territory (Box 10) reinforces the potential benefits of integrated consultative planning, the importance of cross-sector and cross-agency cooperation, engaging diverse stakeholders, and adequate funding and time for consultation and implementation. The initiatives by Victoria, South Australia and the Northern Territory to hold Cabinet meetings in regional areas, and the Office of Citizens and Civics in Western Australia are interesting initiatives to encourage greater public engagement in decision-making. It is too soon to assess the impact of these initiatives.

Reporting and evaluation processes

The quality of environmental and sustainability reporting is variable. Federal and state governments publish comprehensive state of the environment reports every three to five years, and some states also produce more regular public reports, although these tend to be selective, and highlight “good news”. Some states have now introduced sustainability reporting linked to State Plans or sustainability strategies. Only federal government agencies¹¹⁰, Australian Capital Territory, South Australian and Western Australian agencies have produced sustainability reports so far. In 2002-03 the Australian Auditor General concluded that there is considerable scope for improvement in the quality of national agencies’ annual reports. Many agencies are focused solely on the impact of their operations on the natural environment, and are yet to come to terms with the broader implications

109 These principles were derived from the case study of land use planning for the Daly River. The project participants agreed that these are widely applicable and useful principles.

110 Federal departments and agencies are required to report on how the activities of the organisation, its administration of legislation, and the outcomes specified in its appropriations accord with the principles of ecologically sustainable development.

of ESD. Few agencies had identified their most significant ESD issues or targets for their achievement¹¹¹. In Western Australia agencies are required to report¹¹² on compliance with the Sustainability Code of Practice and actions they have taken under the State Sustainability Strategy. These reports are of variable quality and are generally quite brief. The Australian Capital Territory report is comprehensive using both indicators and footprint analysis, but it is not clear how often the report will be repeated.

Performance assessment and reporting enables policy learning and better implementation by providing feedback to guide the development of policies and arrangements for their implementation. Feedback also helps to maintain public attention and a balanced debate on key national sustainability issues through political cycles. There has only been very limited monitoring or evaluation of sustainability structures, policies and programs. There has been high-level monitoring of the State Plans in Victoria and South Australia, by the Premier's Department implementation unit and Excomm respectively. A 'Progress Report' produced by the South Australia's Strategic Plan Audit Committee, and assessing movement in relation to all of the SA plan targets over the two years since the launch of the plan, was published in June 2006. Improved evaluation could be achieved through ESD audits by the Auditors General in all jurisdictions, or by an independent auditor such as a sustainable development commissioner.

Greening of Government Operations

Federal and State Departments and agencies have made more progress with greening of government operations than other processes to embed environmental policy integration. All jurisdictions have engaged in greening of government, and these initiatives are generally quite comprehensive, and are expanding, with detailed monitoring and reporting frameworks.

In New South Wales several agencies share responsibility for leading greening of government initiatives. Government agencies are required to implement, and report on, their energy use and production of greenhouse gases (through the Government Energy Management Policy (GEMP) monitored by the Greenhouse Office). The Department of Environment and Conservation oversees and monitors agency reductions in waste and increases in recycling (the Waste Reduction and Purchasing Policy, WRAPP), and reductions in pollution emissions from the government's car fleet through purchase of smaller and more fuel efficient vehicles including the purchase of hybrid vehicles. Commerce NSW oversees government purchasing and the requirement for government agencies to build and/or use premises that are consistent with the building sustainability index (BASIX). The Department of Energy and Urban Sustainability oversees energy and water savings including a new requirement for agencies to monitor and report on their water use.

In Western Australia, in September 2004 the Government released *Leading by Example: The Sustainability Code of Practice for Government Agencies and Resource Guide for Implementation*. To comply with the Code, all government agencies were to prepare a Sustainability Action Plan by the end of 2004, but specific target setting is left to individual agencies with individual CEOs being responsible. In 2005 an independent assessment by the WA Collaboration of Sustainability Action Plans by government agencies in WA found that

111 Auditor General, 'Annual Reporting and Ecologically Sustainable Development' (No 41 2002-03, 2003) paragraphs 13, 15, 36.

112 These reports are included in departmental annual reports. A few agencies have provided fairly comprehensive reports but most of the reporting has been quite brief.

most State Government Departments had committed to meeting the minimum requirements of the Sustainability Code, but that few agencies had displayed innovation or originality in implementing sustainability within their operations¹¹³.

Generally the framework for greening of government has been defined on a whole of government basis with the detailed strategies and targets left to agencies, but recently some jurisdictions are introducing centrally defined specifications and in some cases specific targets. In New South Wales collection over 5 to 10 years has enabled target setting, but in Victoria it is proving difficult to align performance indicators and activities. More generally greening government is expected to be a self funding activity, and lack of resources and capacity is sometimes a constraint. There have also been some experiments with "triple bottom line" reporting of the economic, social and environmental impacts of departmental operations¹¹⁴.

The relatively high priority given to greening of government operations reflects a desire by agencies to show leadership to the private sector and the community more generally, and the fact that it is easier (though not completely straightforward) for agencies to exercise control over their operational outcomes than policy or program targets. There can also be significant budgetary savings. Governments are averse to the risks of setting transparent targets, and greening of government operations provide a relatively risk-free option for the environment and sustainable development target setting.

113 B. Montague and M. Barter, 'Preliminary Reports on the State Sustainability Action Plans' (WA Collaboration, 2005) 2.

114 Department of Environment and Heritage

<http://www.deh.gov.au/about/publications/tbl/index.html> accessed 6 October 2006

Department of Family and Community Services <http://www.facsia.gov.au/triplebottomline/2005/glance/index.html> accessed 6 October 2006

4 Discussion and conclusions

4.1 Key elements of environmental policy coordination and integration, barriers and gaps

From the materials analysed in the project, and during intensive discussions with project participants, a number of critical success factors, barriers and gaps concerning environmental policy integration were identified. These factors, barriers and gaps are divided into five categories, strategic, leadership, structural, procedural and capacity building. While the study focused on strategies, structures and processes, the study participants emphasized that political and societal values and support, and administrative culture and capability have a critical bearing on environmental policy integration.

The project confirmed that there are a number of long and short-term factors that contribute to the strength of environmental policy integration. The longer-term factors include cultural factors such as the degree of high-level leadership and support, and capacity factors such as human skills and succession, interpersonal relationships and financial resources. Policy crises and the electoral cycle have important short term impacts. From the analysis of a number of leading examples of policy integration, the short term nature of the electoral cycle emerges as a particularly important constraint – without sufficient longevity and persistence, attempts at environmental policy integration are likely to be delayed or hindered. It is often better to persist with and adapt whatever is in place than to shift and change, at least without careful assessment.

Factors, barriers and gaps are presented in Table 5 (Parts I and II). While it is impossible to prioritise or to state in a general sense which of these factors, barriers and gaps will be most critical in a given situation, they represent key considerations when analysing environmental policy integration or designing arrangements to promote it. The following paragraphs discuss the relationship between these factors barriers and gaps and Australia's experience with environmental policy integration, illustrating this discussion with selected examples of Australian experience drawn from the preceding section of the report.

Strategies and Leadership

Strategic requirements for environmental policy integration begin with governments and/or agencies deciding that sustainability (and related issues) should be treated as a significant public policy issue. The debate at this early, strategic stage is how the public sector is to frame the issue: water, for example, could legitimately be a matter concerning social justice, the environment, urban policy, industry, natural resource management, or the economy – and different agencies will have responsibility for developing policies and programs and leading integration depending on the policy framework that is endorsed. Once “sustainability” is on the public sector agenda, governments may establish policies and programs with clear definitions, goals and targets and apportionment of responsibilities for achieving them, together with the capacity to respond to unanticipated change in global and national circumstances (Table 5 Part II). Australian jurisdictions have made substantial progress in setting directions. There has been a large increase in the number of broad sustainable development plans and strategies, and thematic environmental strategies covering topics such as greenhouse, biodiversity, water and waste management.

By contrast there have been few sustainability strategies for economic sectors, other than some components of State Plans and energy and water use efficiency. Strategic economic restructuring has been constrained by fears about loss of economic competitiveness and jobs, and resistance from developers and sectional interest groups. There have been relatively few examples of political leadership prepared to override vested interests. Administrative leadership to make environmental policy integration core business has generally been limited to “greening” of government operations such as saving energy, water and paper.

Further action is needed to embed consideration of environmental and sustainability objectives in decision making on a whole-of-government basis through legislative requirements, and other means such as charters, codes of practice and administrative rules. Where whole-of-government strategies are not developed, clusters of like-minded agencies may develop sectoral integration; or even single agencies may facilitate integration at urban, regional, catchment or local levels. This embedding must be operationally relevant, for example, although ESD principles have been expressed in over 120 Australian statutes, the manner of their inclusion is so far most often unsuited to instructing decision makers or aiding legal interpretation. Embedding is needed to ensure that the intent of environmental policy integration continues, whatever strategies and structures are in place at a particular time. This issue has been sharply underlined by the significant changes to structures in the Australian jurisdictions examined here, even within the short duration of this project.

Structures

Key structural success factors include strong inter-jurisdictional and inter-agency cooperation, with explicit recognition of different values and interests and methods reconciling these. Key problem areas include rapid change and loss of momentum driven by the election cycle and a lack of a coherent political constituency.

Australian jurisdictions have experimented with a wide variety of structures for coordinating environmental and other policies, and with a variety of sustainable development advisory bodies. Each structural model has pros and cons and there is no ideal solution. Coordination by first Ministers and their agencies is not a panacea – it can increase support for environmental policy integration, but it can also result in a more limited agenda. In addition, significant human, financial and information resources and other coordination capacities are needed to enable effective policy integration as well as political support.

Political and administrative culture and administrative capacity have a substantial role in determining the strength of environmental policy integration. Clearly administration has to respond to changes in policy priorities and the immediate directions of government. However, it also needs to maintain the capacity to forecast and prepare to respond to potential future policy developments including policy reversals. The need for longevity and persistence (with flexibility) in policy integration, in recognition of the long term nature of the task, places particular challenges on administrative units and individuals within the normal volatility of policy and political environments. Frequent change of organisational structures involves transaction costs, confusion about responsibilities for policy implementation, lack of policy persistence and staff and agency insecurity. This in turn can lead to inward looking and defensive mindsets that are not conducive to cooperation and policy integration.

Turning to administrative environmental policy integration, across Australia as a whole, there are many different, sectoral coordination committees (for water, energy, native vegetation,

TABLE 5. I
Environmental Policy Integration: Success factors, Barriers and Gaps

	Success factors	Barriers and gaps
Strategic	<p>Clear definition and direction for environmental priorities, policy and sustainability initiatives, including institutional and transition mechanisms, to establish priority for implementation and to allow monitoring and evaluation.</p> <p>Apportionment of clear roles and responsibilities for implementing environmental and sustainable development initiatives, and appropriate funding.</p> <p>Capacity to react and adapt to unanticipated international, national, legal, policy and market changes. These may lead to implementation difficulties or opportunities.</p> <p>Purposeful development of external support from key non-government stakeholders.</p> <p>A legislative mandate for policy integration, for clarity and longevity.</p>	<p>Inadequate communication and/or poor comprehension of the sustainability agenda, which tends to be complex and abstract, often with multiple and/or unclear goals, targets and action timetables.</p> <p>Lack of constituency outside government for environmental policy integration and sustainability initiatives, resulting in a lack of advocates, due to the necessarily diffuse nature of constituent groups (ie. across environmental, social and economic interests) and sometimes opposition from NGOs.</p> <p>Inability to manage vested interests or strong personalities who resist change.</p>
Leadership	<p>High-level accessible Ministerial and administrative support for initiatives, including prominent 'champions'.</p> <p>Statements by the executive making clear that environmental policy integration is considered to be "core business" by agencies, especially those not directly engaged in resource and environmental management.</p>	<p>Shortfall between stated political intentions and policy goals, and implementation, resourcing and commitment.</p> <p>Policy inertia owing to perceived adverse economic/competitiveness impacts, with action to avoid environmental damage being perceived as risky, especially when environmental costs (and benefits of precautionary action) are uncertain.</p> <p>Dominance of short-term perspectives in the policy system, in accordance with budget or electoral cycles.</p>
Structural	<p>Strong inter-jurisdictional and inter-agency cooperation including agreements and protocols to clarify roles and responsibilities.</p> <p>Explicit recognition of different values and interests, across and within government and non-government sectors, and clarity in methods and processes for incorporating/reconciling these.</p> <p>Wide consultation and participation that engages non-government stakeholders in integrative initiatives and in their implementation, monitoring and evaluation.</p>	<p>Loss of momentum and persistence, often arising from political change (minister, government) and/or administrative restructuring and, subsequently, a lack of evidence on impact and outcomes.</p> <p>Disincentives and reluctance re engaging in cross-organisational collaboration - policy integration often involves expensive and resource intensive processes with high transaction costs and new demands on skills and resources.</p>

and so on) but there are no strong Ministerial sustainable development policy coordination Committees (inter-jurisdictional or inter-ministerial). There is also a lack of systematic coordination between environmental research and government decision-making, and no equivalent of the powerful scientific advisory bodies in the Netherlands and Germany. There is also no systematic evaluation of sustainable development performance as carried out by the Commissioners in Canada or New Zealand.

Most jurisdictions have established sustainable development advisory bodies. These have the potential to increase community understanding about sustainable development, and strengthen the political constituency for environmental policy integration, as well as advising governments. However, the mandate and transparency of these bodies varies greatly and it is extremely difficult to assess their value added. Clear definition of mandate and greater transparency would improve their impact.

Processes

Key procedural success factors include adequate decision support mechanisms and implementation tools, including sustainability assessment of policies and programmes, and adequate connection of structures and processes to the knowledge-based and information management processes. Wide communication, consultation and participation is required for successful implementation. In the absence of widely accepted sustainability assessment methods it is difficult to make the business case for sustainability. Shortage of electronically available information constrains the uptake of best practices. In Australia the greatest progress has been in greening of government operations. Jurisdictions have fairly comprehensive and expanding greening of government strategies, with detailed monitoring and reporting frameworks. Purposeful engagement with integrative NGO groups (for example the WA and Australian Collaborations) may provide productive interaction with economic, social and environmental values in the community.

The use of sustainability assessment mechanisms is increasing but from a small base. Strategic environmental assessment is mainly restricted to fisheries and large projects, although applications are increasing. Strategic environmental assessment offers a prime policy integration strategy. The inclusion and treatment of social and environmental impacts in regulation impact assessment is also limited - at the national level it remains a matter for ad hoc negotiation between the Office of Regulation Review and affected parties. Integrated analysis of government budgets is not widely practiced in Australia, although there have been recent moves in New South Wales, Victoria and South Australia to align budget proposals with State Plan targets. The quality of environmental and sustainability reporting is variable and there has only been very limited monitoring or evaluation of sustainability structures, policies and programs. Experience with implementation over large scales, for example in the Northern Territory, reinforces the potential benefits of integrated consultative planning processes, the importance of cross-sector and cross-agency cooperation, engaging a broad spectrum of stakeholders, and adequate funding and time for consultation and implementation

Capacity

Some Australian jurisdictions have given insufficient thought to the capacity and resource requirements for the integrated delivery of environmental and other policies. Australia's large-scale national experiment with integrated catchment based natural resources is an example. Some good results have been achieved using community-based, and more

TABLE 5. II
Environmental Policy Integration: Success factors, Barriers and Gaps

	Success factors	Barriers and gaps
Procedural	<p>Thorough, consistent and appropriately targeted communication mechanisms internal and external to government.</p> <p>Accessible decision support mechanisms and implementation tools, including environmental assessment mechanisms for policies and legislation, that are appropriate to the tasks at hand and widely understood by participants in implementation.</p> <p>Adequate connection of structures and processes to the knowledge base and information management processes, recognizing particular challenges in the environment and sustainability domain arising from multiple disciplinary, professional and community knowledge systems of relevance.</p>	<p>Lack of, or difficulty in expressing, a business case for policy integration and sustainability, and lack of methodology for presenting a costed or measurable case for action.</p> <p>Lack of knowledge or precedent models of implementation processes for integrative policy processes. Limited access to best practice cases, models and examples to use as evidence or guidance.</p> <p>Policy processes that are not adaptable to innovative approaches such as public private partnerships and private delivery.</p>
Capacity	<p>Effective monitoring, evaluation, audit and review processes, tied to program and policy goals and organizational mandates, recognizing the often diffuse, complex and delayed forms of information relevant to monitoring and evaluation of policy integration.</p> <p>Adequate skills within units and groups within agencies charged with policy integration, recognizing that these are generally both different and more diverse than those required in narrower areas of public administration (eg. substantive knowledge across environmental, social and economic areas; negotiation, coordination across agencies).</p>	<p>Inadequate quantity or continuity of financial and human resources to enable cross-organisational collaboration and quality and persistence in implementation.</p> <p>Government budget procedures that are unused and unresponsive to demands for inter-departmental coordination and action.</p>

recently regional approaches for managing natural resources. However, there a number of uncertainties about the eventual outcome of these approaches. Decentralised planning and target setting has been justified on the basis of variations in regional circumstances, but methodologies and processes for setting targets and indicators are still being developed. It is also unclear whether a fair balance of interests can be achieved, or whether traditional powerbrokers and interest groups will dominate regional processes and block transition towards sustainable solutions. Decentralised natural resource management involves an extremely complex set of issues and stakeholders at five different levels of administration (national, state, regional, local, community group). Likewise the creation of markets to deal with issues such as water scarcity and salinity is turning out to be a complex legal and administrative exercise, and it is not possible to foresee the outcome. It remains unclear how much “central steering” and what incentives and needed to bring about effective participation and coordination, but it is clear that more attention needs to be given to the resource and training needs regional and local administrative bodies.

4.2 Possible ways forward

There are a number of institutional responses that could be considered to address these weaknesses. The 'action of sustainability analysis' of government policies and programs would be facilitated by the development of robust sustainability measurement and accounting frameworks, preferably linked with the existing national accounts and budget processes. There is now substantial experience with the methodology for sustainability analysis of government policies and programs. Such analysis could be introduced into existing government processes such as regulation impact analysis, and wider use could be made of strategic environmental assessment or equivalent processes.

Integration of environmental objectives in economic and sectoral agencies could be improved by including ex ante and ex post sustainability analysis in budget processes, and through more comprehensive annual sustainability reporting by government agencies. Sustainability strategies for economic sectors, including goals, targets, timetables and responsibilities would also improve sectoral environmental policy integration.

Long-term perspectives could be embedded into government administration by including sustainability principles more widely and clearly in legislation and agency charters and reporting frameworks. For busy agencies and officials, matter which is not in the legislative mandate tend to be put off or become voluntary. High-level independent scientific and audit bodies could advise on sustainability progress, and coordinate regular environmental outlooks to provide long-term perspectives for policy-making. Wide communication, consultation and participation is also required for successful implementation.

Australian experience suggests that there is no ideal set of structures, strategies and processes to drive environmental policy integration, and that leadership, cultural change and capacity building have key roles to play. However, it must be emphasized that the success of these and other responses depends on sustained high-level political and administrative support, and further efforts to develop constituencies for environmental sustainability, rather than only for subsidiary issues and sectors.

It is too soon to say whether decentralised approaches to important national issues such as natural resource management and climate change are effective. But it is especially difficult to achieve environmental policy integration in economic sectors owing to the resistance of established interests. It is already clear that the requirements for central coordination, capacity building and resources have been underestimated.

Finally, there has been very little evaluation of structures and processes to promote environmental policy coordination and integration. Many promising initiatives are abandoned before they have had time to prove themselves, or be properly evaluated so that effective learning can occur. Evaluation is required just as much for policy coordination and integration mechanisms as policies. This project provides an overview of the field, but more in-depth evaluative studies of different coordination structures and processes are required to assess the outcomes of different models. Each new structure and process, or combination of the two, is an experiment that should be given time to prove itself and be properly evaluated so that effective learning from experience can occur. This learning could then be shared through Ministerial coordination councils and CEO committees.

This project has consolidated and extended understanding of the need for and nature of policy integration in the domain of environment and sustainability, and described and analysed selected international and Australian initiatives. Subsequent outcomes of the

project will summarise and deliver these insights to specific Australian audiences. However, given the difficulty and scope of the enterprise – policy integration is a generational task in public administrative systems and society more broadly – there are some clear further knowledge gaps that could be addressed through further work, including both research and policy practitioners:

- 1** Further exploration of the role of policy leadership in maintaining focus and efforts, and ensuring the persistence of initiatives into at least the medium term.
- 2** Detailed evaluation of leading policy experiments over time to identify critical constraints and enabling factors, noting that this one-year project has been more of a snapshot of current and recent initiatives.
- 3** Closer attention to effective mechanisms for coordination and synergy between policies and programs across government, noting that whatever the overall coordination structures and processes in place, much integration will need to occur via multiple connections across a large number of initiatives in multiple agencies.

5 References

- Auditor General (2003), Annual Reporting and Ecologically Sustainable Development, Audit Report No 41 2002-03, Canberra.
- Bellamy, J., Ross, H., Ewing, S. and Meppem, T. (2002) Integrated Catchment Management, Learning from the Australian Experience for the Murray-Darling Basin, Canberra: CSIRO Sustainable Ecosystems.
- Beuermann, C. (2000) Germany, in W. Lafferty and J. Meadowcroft (eds.), Implementing Sustainable Development: Strategies and Initiatives in High Consumption Societies. Oxford: Oxford University Press.
- Campbell, A. (2006), The Australian Natural Resource Management Knowledge System” Land & Water Australia, Canberra.
- Connor, R. and Dovers, S. (2004) Institutional Change for Sustainable Development. Cheltenham: Edward Elgar.
- Council of Australian Governments (1997), Heads of Agreement on Commonwealth and State Roles and Responsibilities for the Environment, <http://www.deh.gov.au/epbc/about/agreement/> accessed 28 November 2006
- Curtis, A and Lockwood, M. (2000) Landcare and Catchment Management in Australia: Lessons for State-Sponsored Community Participation, Society and Natural Resources, 13, 61-73.
- Earth Council (2000) National Experiences of Integrative, Multi-Stakeholder Processes for Sustainable Development. .
- European Advisory and Sustainable Development Advisory Councils (2005) Sustaining Sustainability: A Benchmark Study on National Strategies, EEAC Series (ed.), Background Study No 2. The Hague.
- European Environmental Agency (2005a) Environmental Policy Integration in Europe, State of Play and an Evaluation Framework, EEA Technical Report No 2/2005. Copenhagen: European Environmental Agency.
- European Environmental Agency (2005b) Environmental Policy Integration in Europe: Administrative Culture and Practices, EEA Technical Report No 5/2005. Copenhagen
- Productivity Commission (1999) Implementation of Ecologically Sustainable Development by Commonwealth Departments and Agencies, Canberra: AusInfo.
- Farrier, D., Kelly, A., Comino, M. and Bond, M. (1998) Integrated Land and Water Management in New South Wales: Plans, Problems and Possibilities, Australasian Journal for Natural Resources Law and Policy, 5, 2, 153-185.
- House of Commons Select Committee on Environmental Audit (2003), 13th report. London.
- Hertin, J., Jacob, K., Bartolomeo, M., Volkery, A., Cirillo, M. and Wilkinson, D. (2004) Ex-Ante Sustainability Appraisal of National-level Policies: A Comparative Study of Assessment Practice in Seven Countries, paper presented to Conference on “Greening of Policies? Interlinkages and Policy Integration”. Berlin.
- Jacob, K. and Volkery, A. (2004) Institutions and Instruments for Government Self-Regulation: Environmental Policy Integration in a Cross-Country Perspective, Journal of Comparative Policy Analysis, 6, 3, 291-309.
- Janicke, M. and Weidner, H. eds (1997) National Environmental Policies - A Comparison of Study of Capacity-Building. Berlin: Springer.

- Lafferty, W. and Hovden, E. (2003) Environmental Policy Integration: Towards an Analytical Framework, *Environmental Politics*, 12, 3, 1-22.
- Lane, M.B., McDonald, G.T., and Morrison, T.H. (2004) Decentralisation and Environmental Management in Australia: A Comment on the Prescriptions of the Wentworth Group, *Australian Geographical Studies*, 42, 1, 103-15.
- Lenschow, A. (2002) Greening the European Union - Are There Lessons to be Learned for International Environmental Policy, *Global Environmental Change*, 12, 241-5.
- Lenschow, A. (2002 b) Greening the European Union, An Introduction. In *Environmental Policy Integration: Greening Sectoral Policies in Europe*. London: Earthscan.
- Management Advisory Committee (2004) *Connecting Government: Whole of Government Responses to Australia's Priority Challenges - Summary of Findings*, Canberra: Commonwealth of Australia.
- Macintosh, A. and Wilkinson, D. (2005) EPBC ACT: The Case For Reform, *Australasian Journal for Natural Resources Law and Policy*, 10, 1, 139-77.
- Marsden, S and Ashe, J. (in press) Strategic Environmental Assessment Legislation in Australian States, *Australasian Journal of Environmental Management*.
- Marsden, S. and Dovers, S. (eds). 2002. *Strategic environmental assessment in Australasia*. Sydney: Federation Press.
- Meijers, E. and Stead, D. (2004) Policy Integration: What Does It Mean and How Can It Be Achieved? A Multidisciplinary Review, *Conference on Human Dimensions of Global Environmental Change*, Berlin.
- Montague, B. and Barter, M. (2005) *Preliminary Reports on the State Sustainability Action Plans*, Perth: WA Collaboration.
- OECD (2001a) *OECD Environmental Outlook*. Paris: OECD.
- OECD (2001b) *Sustainable Development: Critical Issues*. Paris: OECD.
- OECD (2002) *Improving Policy Coherence and Integration for Sustainable development*. In *Policy Brief*. Paris: OECD.
- OECD (2004) *Environmental Performance Reviews: Canada*. Paris: OECD.
- Persson, A. (2004), *Environmental Policy Integration: An Introduction*, Stockholm: Stockholm Environment Institute.
- Reeve, I (1999) *Tiptoeing Round of the Slumbering Dragon: Property Rights and Environmental Discourse in Rural Australia*, Institute for Rural Resources Occasional Paper. Armidale: University of New England.
- Office of Regulation Review (1999) *A Guide to Regulation*, Commonwealth of Australia, Canberra.
- Rose, R. (2005) *Learning from Comparative Public Policy: a Practical Guide*. London and New York: Routledge.
- Ross, A. (2005) National Institutions for Sustainable Development: The Challenge of Long-Term Policy Integration, *Australasian Journal for Natural Resources Law and Policy*, 10, No 1.
- Syme, G. (2003) *Why Don't We Talk Social Sustainability When It Comes To Sharing the Water*, paper presented to National Water Conference 2003. Melbourne.
- Venning, J. and Higgins, J. (eds). 2001. *Towards sustainability: emerging systems for informing sustainable development*. Sydney: University of NSW Press.

6 Appendices

- 1 Project summary
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- 3 International trends and best practice to enable environmental policy integration
- 4 Australian jurisdictional reports
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 - B South Australia
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Appendix 1

Project summary

Policy Integration for Sustainable NRM: Joint Research and Policy Learning

An applied research project exploring current practice and future possibilities in structures and processes for integrating environmental, social and economic considerations in policy making in Australian jurisdictions.

Funded by Land & Water Australia (project ANU-50) through its Innovations Call.

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The WA Collaboration (Nicole Hodgson)
Commonwealth Dept Env. & Heritage
The Barton Group (Paul Perkins)

Duration 1 July 2005 – 30 September 2006.

1 Background and aims

Policy integration is a fundamental principle in policy and law regarding sustainable development, and entails structures and processes inside and outside government to integrate environmental, social and economic considerations in policy and decision making. In Australia and other jurisdictions, governments and policy communities have in recent years created a range of structures and processes to enable policy integration. However, little assessment and evaluation of these initiatives, especially comparative analysis, has yet been undertaken.

This project aims to describe and analyse structures and processes for integrating environmental, social and economic considerations, and the policy integration that has been achieved in Australian jurisdictions in the domains of natural resource management, environmental management and sustainable development. The project will also review international policy integration experience. Comparative analysis provided by the project will allow lesson drawing to inform future best practice.

In some jurisdictions, the focus of policy integration is broad, encompassing the sustainability domain and residing in central agencies; in others it resides largely in resource management or environment departments. The structures and processes used also vary widely. The scope of the project is determined empirically, being defined by what governments (often in

collaboration with non-government interests) have constructed and are doing, in Australia and internationally. The analysis will focus on the experience of state/territory jurisdictions, supplemented by federal government, NGO, regional and business perspectives.

2 Outputs and outcomes

The project will produce a final report and plain language summary to Land & Water Australia, along with journal articles and conference papers accessible to a wider audience. A subsidiary aim is to inform and empower a network of key individuals interested in advancing the theory and practice of policy integration in Australia.

3 Research Process

The project is framed as a concurrent process of research and active policy learning, the latter enabled by the participation of key officials in Australian government agencies with interests in and responsibilities for policy integration. The core elements of the process are: (i) international review, (ii) description and analysis of past and current Australian mechanisms, (iii) joint comparative research and policy analysis involving researchers and key officials in Australian jurisdictions; and (iv) synthesis and communication.

During the second half of 2005, a review of key trends and initiatives in policy integration internationally will be undertaken by the ANU researchers, to provide background and comparison for Australia. Over this time, participants and the researchers will prepare descriptions and initial analyses of policy integration initiatives in Australian jurisdictions. These will be the subject of further analysis, and the development of future options for advancing policy integration, during the first half of 2006, including an intensive meeting of all participants. Finalisation of the component studies and of synthesis material will occur between May and September 2006.

4 Project Steering Committee

A project steering committee will be established, including a representative of participants, Land & Water Australia, and the research team.

5 Budget

The project is primarily funded through Land & Water Australia's competitive Innovation Call, supplemented by in-kind support from the Australian National University and other participating organisations. The budget allows for employment of research staff, administrative costs, an intensive meeting of participants in 2006, travel, data collections costs, etc.

6 Precedent and related research

This project build on previous and related work over the past decade, and particularly on two Land & Water Australia-funded research projects led by S.Dovers at ANU and reported in:

- Dovers, S. and Wild River, S. (eds) 2003. *Managing Australia's environment*. Sydney: The Federation Press.
- Connor, R. and Dovers, S. 2004. *Institutional change for sustainable development*. Cheltenham: Edward Elgar.

The project also has links to Grains R&D Corporation-sponsored research undertaken at the National Europe Centre at the ANU and OECD-related work, carried out by A.Ross and others. Several initial reviews of state scale policy integration initiatives have been prepared by project participants (some for an LWA integration meeting in 2004), and this work will be further developed during this project

Appendix 2

Primary project participants¹⁵

Don Munro, NSW Premier's Department.

Mike Helm, Department of Environment and Conservation, Western Australia.

Rebecca Falkingham, Department of Sustainability and the Environment, Victoria.

Rebekah Hamed, Department of Sustainability and the Environment, Victoria.

Ann Harvey, Department of the Premier and Cabinet, South Australia.

Jill Brooks, Department of Environment and Heritage, South Australia.

Rob Murray-Leach, Department of the Premier and Cabinet, South Australia.

Stuart Gold, Department of Natural Resources, Environment and the Arts, Northern Territory.

Peter Ottesen*, Department of Territory and Municipal Services, Australian Capital Territory.

Michael Lester*, Land and Water Australia.

Paul Perkins*, Australian National University.

Nicole Hodgman, W. A. Collaboration.

David Yencken, Australian Collaboration.

Stephen Dovers**, Australian National University.

Andrew Ross***, Australian National University.

115 * Member of project steering committee, **leader of research team, ***member of research team. The primary participants attended the project meeting at Mt Lofty SA. Many other officials participated in the project through activities such as preparing jurisdictional reports, discussion with the researchers and liaison and organisation