
SUSTAINABILITY EDUCATION AND ENGAGEMENT FOR NSW:

Learning for Sustainability Research Synthesis

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Executive Summary

Learning for Sustainability (LfS) describes the engagement, awareness raising, education, training, and capacity building necessary for the transformation to a society that is socially, economically and ecologically sustainable. It includes a wide range of educational approaches across government, business, community and the formal education sectors.

The broad goals of LfS are to develop positive attitudes towards sustainable lifestyles, to build knowledge about environmental problems and their solutions, to develop relevant skills for the workplace and daily life including leadership and decision-making skills, and to enable people to adopt sustainable practices and behaviours.

This research

The NSW Government, through the Office of Environment and Heritage (OEH), in partnership with the Australian Association for Environmental Education NSW (AAEE NSW), has initiated a review of the current status and emerging trends in sustainability education and engagement in New South Wales (NSW), with two key goals:

1. to develop an agreed vision and key principles for LfS in NSW for the next decade
2. to develop a framework to support this vision and a process for implementing it.

As a stepping stone to establishing policy options, this synthesis report brings together research and analysis commissioned by OEH in 2010–11, which used consultative processes among key stakeholders involved in LfS strategies and programs in NSW. The research program included stakeholder interviews, an ‘Open Space’ forum, an international comparative study of LfS in five jurisdictions, an on-line survey of stakeholder representatives and literature analysis.

The context for LfS in NSW

Environmental concern

The introduction of a new framework for LfS in NSW is underpinned by the substantial and growing concern about environmental matters in NSW and the aspiration for a transition to sustainability.

The longitudinal study *Who Cares About the Environment?* provides the evidence for this. When respondents were asked in 2009 what government should be doing to protect the environment, the most commonly mentioned initiatives relate to energy use and greenhouse gas mitigation. However the need to increase education and awareness ranked equal second.

LfS and the NSW 2021 plan

The NSW Government’s ten-year state plan *NSW 2021* provides an overarching set of policy considerations, opportunities and goals, many of which are aligned with and can be implemented through LfS. The plan provides a comprehensive suite of aspirations, top-level strategies and specific actions for development in NSW, with an emphasis on devolution of responsibility and leadership to communities, and focus on cross-sectoral integration. By developing the knowledge and skills communities need to protect the natural environment, LfS complements and supports many of the *NSW 2021* aspirations and actions. For example:

- Learning which increases expertise in managing a low carbon economy will support improvement of economic performance.
- Enhancement of expertise in urban planning, sustainable energy and water management, through formal environmental education, will assist development of public transport, infrastructure and liveable centres.
- Learning which brings about behaviour change through knowledge about sustainability will enhance opportunities for people to look after their own neighbourhoods and environments.

- Training in facilitation of community development processes linked to sustainability will foster greater involvement of communities in decisions.
- Cross-sectoral education programs at the level of whole catchments, aimed at community capacity building, will assist to strengthen local communities and protect natural environments.

Local government and LfS

In NSW a comprehensive review of local government functions and structures is underway, with *Destination 2036: A Path Together, Draft Action Plan* open for consultation and deliberation in 2011/12. There is an opportunity for beneficial linkage between this consultation process and the development of a new framework for LfS in NSW. Just as a new framework for LfS aligns with *NSW 2021*, so too will LfS support local government developments, addressing proposed outcomes of the *Destination 2036* planning process. For example, LfS programs will underpin:

- management of population, business and industry growth in regional, rural and remote areas
- review of the Environmental Planning and Assessment Act to increase flexibility and local autonomy
- greater community awareness and ownership of the Metropolitan Strategy and other city-wide land use planning and local planning for transport
- strategies for enhancing productive agricultural land
- alignment of state, regional and local planning for coastal management, for flooding, and for disaster management.

Current arrangements for LfS in NSW

Two decades of development in environmental education saw a shift towards a system-wide approach by the end of the 1990s. In 1999, the NSW Government established the cross-sectoral representative Council on Environmental Education under the *Protection of the Environment Administration Act 1991* (NSW). The role of the council was to advise the NSW Government on key issues, trends and research requirements relating to environmental education and to coordinate the preparation of state-wide three-year plans for environmental education, and monitor their implementation. The first plan, titled *Learning for Sustainably: NSW Environmental Education Plan, 2002–05*, was reviewed after three years and developed as a second plan for the period 2007–10. This second LfS plan remains current in 2011–12.

There are linkages between the LfS plan and other instruments and programs across all sectors. One such linkage, of significance for resourcing of environmental education, is with the education grants administered by the NSW Environmental Trust.

Other relevant and parallel developments across the last decade include a comprehensive national review of environmental education conducted by the Australian Research Institute in Education for Sustainability (ARIES), and the introduction, in 2009, of *Living Sustainably: the Australian Government's National Action Plan for Education for Sustainability*.

Initiatives and plans for environmental education in NSW, and parallel developments in other jurisdictions, represent a significant contribution to Australia's participation in the United Nations Decade of Education for Sustainable Development (UNDESD) 2005–14.

International comparisons and governance models

The Organisation for Economic Cooperation and Development (OECD) prescriptions of 'Good Governance' are relevant to all fields of endeavour, including LfS. Building on these prescriptions, Australian educationalist Professor John Fien has explored the characteristics of effective governance frameworks and associated engagement and support strategies for LfS using case studies of five jurisdictions. His study, titled *Governance for Education for Sustainable Development: An Analysis and Synthesis of Governance and Policy Issues Across Five Jurisdictions: England, the Netherlands, Germany, Ontario and Victoria*, uses characteristics of good governance as benchmarks for comparative analysis of approaches to LfS.

Good governance in action

The first good governance characteristic – structural integration – is best exemplified by the Netherlands, Germany and Victoria. They all have high-level representative bodies that steer policy development, initiate research and provide advocacy. The second requirement, policy integration, is best observed in the Netherlands and Germany, which currently harmonise their activities with the UNDES, and where environmental education is strongly supported by several ministries.

Effective coordination is essential to good governance. The Netherlands approach is characterised by centralised program steering and management. England appears to provide a distinctive example of responsibility for environmental education decentralised across a field, with government responsibility weighted towards research rather than centralised planning and program management.

Participation, a consensus orientation and responsiveness are good governance characteristics, which are evident in all jurisdictions. However, in England and Ontario, where centralised coordination is less strong, consensus building arises through dispersed and diverse networks and their innovations.

Conceptual coherence is best exemplified in three jurisdictions – the Netherlands, Germany and England. The Netherlands promotes social learning and three ‘pillars’ – the learning individual, the learning organisation and the learning society. Germany models an ‘Environmental Citizenship’ approach, reliant on the entrepreneurial green citizen to deliver innovations through learning, while England best exemplifies LfS as cultural change, encouraging new behaviours and changing cultural values to enable a shift to a sustainable society.

Lead agencies

Regarding leadership of LfS, the comparative study finds that, in all five jurisdictions, governance mechanisms rely on partnership approaches with dispersed responsibilities. However specific leadership initiatives have been crucial for driving policy development, the establishment of structures and ongoing implementation.

Government environment departments are the most common lead agencies across the jurisdictions studied, though education departments are invariably involved in partnership. Central bodies such as the German Chancellery and Victoria’s Department of Premier and Cabinet have also played key leadership roles, as have specialised agencies and commissions established to enable partnerships and structural integration.

NSW stakeholder perspectives

This synthesis report brings together stakeholder perspectives from three sources: an online survey with 358 respondents, a set of 25 stakeholder interviews, and an ‘Open Space’ forum of 50 stakeholders; these research and consultative processes took place between late 2010 and mid 2011. The stakeholders represent a broad range of sectors – across tiers of government and agencies, business and industry, communities and NGOs, and education practitioners.

Visions for LfS in NSW

The stakeholder research and consultations confirm that an LfS vision for NSW would need to frame education as a tool to be integrated with other approaches and programs, and should be contextualised within a broader sustainability vision for NSW. The emphasis of sustainability education should be on enabling behaviour change and actions at the local and ‘place-based’ level.

Examples of vision statements favoured by research participants include:

- ‘Education that enables the people of NSW to be informed and active participants and to work together towards a sustainable future’.
- ‘Programs that build the capacity of the people of NSW to work together proactively to develop resilience in our landscapes and communities’.

- 'Learning that enables [people within an organisation or community] to work together towards an environmentally sustainable future'.

Stakeholders want new alliances, reflecting new diversity in sustainability education, to create a broad base for advocacy. Achieving this means building from the existing continuum of practice across NSW, to work cross-sectorally while recognising the diverse motivations and characteristics of each sector.

Stakeholders have identified the need to enhance the coherence of a centrally coordinated framework for LfS, though LfS needs to remain multi-dimensional, with capacity for community-led initiatives distributed geographically and across sectors.

There is strong support for an integrated sustainability policy framework that includes education and engagement, and a significant majority (71 per cent) favour a group/body that provides strategic direction and coordination.

Stakeholder views of government roles

Based on key informant interviews, stakeholders believe government should coordinate development of a cohesive approach to LfS, while establishing the means for devolved implementation of educational and engagement programs. In taking a leadership role, government should continue to place emphasis on partnerships with key organisations that would enhance the capacity of all sectors to deliver LfS programs.

Also, stakeholders argue that government agencies should work closely together to ensure effective coordination and greater reach of programs, and that LfS should be integrated with other tools for change and with wider government planning initiatives. LfS would need to be consistent with and nested within other government policies.

The overall aim should be to support existing networks so they can self-direct, and integrate sustainability education with other tools to reach sustainability outcomes. This will involve enhanced cross-sectoral networking.

Interviewees see the provision of research outcomes and case studies as a crucial government role. They suggest that, with government support, the LfS field needs to modernise approaches to sharing information and experiences, ensuring new communications technologies and systems are tapped.

Specifically, key informants believe that opportunities are needed to showcase the 'business case' for sustainability, with examples shared across networks. Government should help provide organisations with understanding of sustainability and its value to their business, and with technical support to translate sustainability into their business models and outcomes.

Stakeholders argue that there is an important continuing role for government funding, and imply that innovation is needed in funding models, to place greater focus on community capacity building for LfS; also that funding should be directed towards network development, mechanisms for 'showcasing' examples of transitions enabled through LfS and professional development.

Key priorities for the sectors

The response from local government indicates strong potential for furthering LfS through the activities of education officers; though these officers need further structural support, integration of sustainability within policy and leadership within their organisations.

The need to engage business and industry is a priority, and it is important to see innovation for sustainability as linked to broader business innovation, and to see sustainability as a means of securing business advantage.

State government sustainability program managers have a strong outward focus and are well tuned to the relevance of LfS in other sectors. The management of networks is therefore a priority role for State Government, requiring staff proficiency in collaboration and engagement.

The community sector expresses keen awareness of resourcing constraints and at the same time gives relatively strong emphasis to community development strategies. Together these

characteristics indicate the need to prioritise ongoing structures that will enable community-led initiatives.

Survey responses from the formal education sector express concern about lack of priority for sustainability among other education priorities. Developments in the sector should prioritise ways to enhance organisational support for sustainability education within the curriculum. The implementation by 2014 of uniform national curriculum for schools, which includes sustainability as an element, presents a significant opportunity.

Developing the field of LfS

The stakeholder research indicates the need to further develop an active and supported sustainability education profession, with recognised professional standards, accredited and audited courses, and a role for government in enhancing educators' capabilities.

The field should recognise and develop community development approaches generally, with specific attention to facilitation skills. 'Sustainability facilitators' should be regarded as both organisational change agents and leaders working in a community development mode.

There should be support for these community capacity builders, and for networks of leaders in the LfS field, enabling such people to lead change in their own communities, and to share these experiences across networks. Individual champions within organisations and communities, and senior managers who provide support and leadership are crucial drivers, and these people should have access to professional development programs.

Towards a new framework for LfS in NSW

This synthesis report is not designed to present specific recommendations. What follows is a digest of implications and interpretations emerging from the research.

Conceptualising LfS

Overall, the research has revealed multiple ways of conceptualising LfS. For example, it can be seen as the means to achieve specific policy objectives, and/or as education that promotes behaviour change conducive to the implementation of sustainability policy.

In the most holistic sense, LfS is a means of giving control to individuals, organisations and communities – through developing their knowledge base and building their capacity to undertake change, enabling their informed and deliberative responses to a wide range of sustainability challenges involving social, economic and ecological dimensions.

The Netherlands delineation of three 'audiences', which then become the three 'pillars' for LfS has appeal as a cohesive concept. It suggests comprehensive social learning that is continuous across life's structures and across time. Pillar 1 *the learning individual* places the focus on the formal education and training sectors. Pillar 2 *the learning organisation* is most concerned with government and policymaking, and in NSW this could extend to both local and state government and to industry and business. Pillar 3 *the learning society* implies focus on learning that relates to complex and collective decision-making involving several stakeholders.

Governance and LfS

The research has provided strong evidence that stakeholders anticipate the building of new alliances and development of networks, with cross-sectoral approaches that recognise diversity. They envisage all tiers of government working in partnership with the formal education sector, with business, and with communities to develop the field of LfS, to communicate best practice, and to foster, though not 'control', initiatives from many sectors.

Such a vision is consistent with contemporary models of 'governing by network' or 'network governance', which have emerged in response to the demands of complex policy challenges and the limitations of hierarchical approaches. The international comparative research has revealed network governance in action in all the jurisdictions studied – creating and developing decision-

making networks and drawing upon diverse creativity and imagination for policy development, and for action.

An allied concept is 'distributed leadership' which relates generally to the behaviour of organisations and their networks, but is also specifically characteristic of educational contexts. It describes the leadership that arises in networks, drawing on diversity of expertise rather than prescribed hierarchical roles, to create initiatives that, in total, are more than could be achieved by the actions of separate agencies or individuals. Distributed leadership is evident in the experience of LfS in both the Australian and overseas jurisdictions studied for this research.

Network governance raises questions about how to determine and protect core values and how to manage accountabilities and potential risks across networks. Good governance, as benchmarked against international best practice, with continuing roles for centralised government, is essential to effective and productive network arrangements.

Together, the concepts of governance by network, distributed leadership and good governance could provide a framework for developing LfS in NSW. As previously discussed, there is strong resonance between such approaches and the style of governance enunciated in the new State plan *NSW 2021* – which values local initiatives and promotes government-sponsored devolution of decision-making to local government, business and community.

Government's leadership and support roles for LfS

The comparative study has further clarified the leadership role which government necessarily plays to promote and foster LfS. All the jurisdictions studied show the importance of well-conceived and evidence-based initiatives, most commonly originating in environment and/or education ministries. Historically, these have seen government promote and support but also *devolve* policy development and implementation and also the continuing function of enhancing partnership and networking arrangements.

This has implications for individual roles and responsibilities of State Government officials – it makes management of networks a key attribute, with proficiency required in team building, collaboration among diverse contributors, engagement and negotiation; and it requires the ability to co-manage third party service providers in a way that maintains core values across a network.

A continuing State Government role would be the sponsorship and resourcing of key coordinating structures. Some options for developing new coordination and support structures could include:

- a high-level coordination mechanism for LfS, for example a steering committee with membership of prominent individuals representing many sectors
- broad-based structures for engagement, collaboration, consultation and participation, such as an annual round table involving LfS facilitators and practitioners. This would have a policy-initiating function
- specialist and focused mechanisms for policy development and strategic planning, for example working parties focused respectively on: a) research, evaluation and documentation of best practice; b) training and professional development with a focus on leadership capacity and skills; and c) resourcing issues for LfS.

Funding for LfS programs

The research has indicated the continuing need for a government funding program for LfS. This should be both responsive to short-term initiatives from the field, and through its range of funding categories also address priorities more comprehensively and in the long term.

Sector-specific funding needs have been mentioned in stakeholder interviews; also the need for State Government support for partnership development and network infrastructure, and for documentation of good practice.

The distributed leadership model implies the need, also identified in the research, for enhanced professional development across the LfS field, aiming to acknowledge and build the capacity for individuals and groups to confidently take up leadership roles.

Conclusion

The LfS field is open and confident about possible new frameworks and coordinating structures, to be devised through consultative processes. The field is responding to contemporary demand for a sustainable society in NSW, and for related education and engagement activities.

Since the first NSW environmental education plan was implemented, innovative, non-traditional modes of community education about sustainability are emerging across sectors that historically did not incorporate sustainability. A new LfS framework will therefore need to acknowledge and encompass other sectors and new approaches to environmental education.

Any new framework of sustainability learning strategies will need to install contemporary structures that will enhance engagement of all sectors. It will need to strengthen links with other engagement approaches, and enhance support for integrated programs that maximise environmental, social and economic benefits for the people of NSW.

1. Introduction

Globalisation, growing population and consumption, and the limits on our use of natural resources are posing complex world-wide challenges which impact the people of NSW.

Working with and supporting individuals, families, businesses and communities to look after their environment and to make it more sustainable is a priority for the NSW government.

Education and engagement is integral to sustainability strategies. It supports the implementation of policies, legislation and incentive schemes needed to protect the environment and to sustainably manage water, air, soil and other natural resources.

The challenge in NSW is to improve the integration of learning and engagement within sustainability initiatives across all sectors. Crucial to this is an effective model that establishes and supports a framework for LfS across the NSW community.

LfS describes the engagement, awareness raising, education, training, and capacity building necessary for the transformation to a society that is socially, economically and ecologically sustainable. It includes a wide range of educational approaches across government, business, community and the formal education sectors.

The broad goals of LfS are to develop positive attitudes towards sustainable lifestyles, to build knowledge about environmental problems and their solutions, to develop relevant skills for the workplace and daily life including leadership and decision-making skills, and to enable people to adopt sustainable practices and behaviours.

1.1 Towards a new LfS framework in NSW

In the decade prior to 2010, two successive LfS plans provided a focus for environmental education in NSW.¹ During this period, a representative body, the NSW Council on Environmental Education, played the cross-sectoral coordination role in developing and reviewing these plans, and the council generally advised government about directions in environmental education.

The plans, the first covering the period 2002–05 and the second covering the period 2007–10, helped to enable local and state government agencies, communities, industry and the formal education sector to integrate education and learning strategies for environmental protection and sustainability. These sectors have sought to achieve this with regard to their own internal operations and in relation to the goods and services they provide.

As the term of the 2007–10 plan ended, the NSW Government, through what is now the OEH, in collaboration with AAEE NSW,² initiated a review of the current status and emerging trends in sustainability education and engagement in NSW, with two key goals:

- to develop an agreed vision and key principles for LfS in NSW for the next decade
- to develop a framework to support this vision and a process for implementing it.

A key premise is that any new framework of sustainability learning strategies will need to strengthen links with other engagement approaches, and enhance support for integrated programs that maximise environmental, social and economic benefits for NSW.

1.2 The current review process, and the purpose of this report

The goals and strategies of the 2007–10 NSW *Learning for Sustainability* plan provide a strong interim basis for continuing action across this period of review.

¹ The term 'Environmental Education' has been in common usage in NSW since the 1980s. As the field evolved, the term 'Learning for Sustainability' emerged. Findings about terminology are presented later in this report.

² In 2011, after a change of government in NSW, the newly formed OEH took over functions of what had been the Department of Climate Change and Water (DECCW). DECCW initiated the current review of LfS.

In late 2010, OEH and AAEE NSW conducted an initial forum with invited practitioners and thinkers. This began a sequence of research projects and a year-long conversation across community, education, business and government sectors.

As a stepping stone to establishing new directions for LfS in NSW, this Synthesis Report brings together the research and analysis commissioned by the OEH in 2010–11, which used a range of methodologies to canvass perspectives among key stakeholders involved in LfS strategies and programs in NSW.

This report feeds back key research findings to those stakeholders. It indicates the range of existing governance approaches and practice, and draws out the main considerations for future policy development. It will help to inform the NSW Government about stakeholder attitudes, priorities and preferences for future directions, and it consolidates background data for decision-makers who will lead the development of LfS in NSW.

1.3 Research sources, methodologies and report structure

In NSW, LfS has evolved over three decades, and one feature common to all innovations has been an evidence-based approach to determining community perceptions and preferences, and to monitoring the effectiveness of policies and programs. In the current review, this approach has motivated a multifaceted research program in which depth of analysis and triangulation of findings are achieved through the combination of literature study, forums, key-informant interviews, and surveys across a sample of stakeholders.

This Synthesis Report assembles findings in two groups:

In Sections 2, 3 and 4: the policy landscape in NSW, existing arrangements and comparisons with other jurisdictions

Findings from:

- key documents relating to the existing governance framework for environmental education in NSW, including two NSW **Learning for Sustainability Environmental Education Plans** (2002–05, and 2007–10), the discussion papers that preceded them, relevant legislation, and monitoring **reports** sponsored by the NSW Council on Environmental Education
- other **key governance documents**, including *NSW 2021, a plan to make NSW number one*; and *Destination 2036: A Path Together, Draft Action Plan [for local government in NSW]*
- a **comparative review of governance structures** for Education for Sustainable Development, comprising one interstate and four international case studies. This review, conducted by leading educationalist Professor John Fien, examines frameworks, models, governance structures, engagement approaches and tools used by governments. It also provides a commentary on models of good governance related to LfS.³

In Section 5: the view from the LfS field in NSW

Findings from:

- a one-day **Learning for Sustainability Open Space Forum** held in December 2010, hosted by OEH and AAEE. Fifty key practitioners and thinkers from the sustainability education community discussed the future shape of learning and education for sustainability in NSW.⁴
- **25 structured interviews** made by OEH in February–March 2011 with representatives of the formal education, community, government and business and industry sectors. They scoped the

³ Fien, J., 2012, *Governance for Education for Sustainable Development: An Analysis and Synthesis of Governance and Policy Issues in EfSD across Five Jurisdictions: England, the Netherlands, Germany, Ontario and Victoria*, NSW Office of Environment and Heritage, Sydney.

⁴ Internal OEH forum report.

current status of sustainability activities and sustainability education in NSW and considered preferred language around education for sustainability.⁵

- an **online survey** conducted in July 2011 by Ipsos Social Research Institute involving representatives of organisations engaged in sustainability activities and education. The survey helps to identify current and emerging trends in sustainability education and engagement in NSW – considering practices and approaches, opportunities and challenges, language, and views about future needs.⁶

The report concludes by bringing together key dimensions and a summary of needs in Section 6.

⁵ Internal OEH summary of interview findings.

⁶ Elgood, J. and Clark, S, 2012, *Sustainability Education and Engagement in NSW: 2011 Online Survey Report*, Ipsos Social Research Institute and NSW Office of Environment and Heritage, Sydney.

2. The broad policy landscape in NSW

As context for the research findings, this section sets out a number of elements of state and local government policy that are relevant to LfS development in NSW.

2.1 ‘Who cares about the environment?’

The aspirations of NSW residents provide a context for LfS policy formation. ‘Sustainability’ is a shared goal among the overwhelming majority of participants in the research conducted for the LfS review.⁷ However, to what extent is this more generally a priority within NSW society?

There is evidence that LfS initiatives arise in the context of significant environmental interest and concern among the NSW population. An important measure of this has been the State Government’s triennial *Who Cares About the Environment?* research, in which a representative cross-section of the NSW population is surveyed. Produced since 1994, the series indicates changing environmental knowledge, attitudes and behaviours in the NSW population, and citizens’ preferred priorities for government action.⁸

In the ‘Who Cares’ survey, respondents have consistently placed environmental issues among the top five priorities for NSW government attention, both now and in future. In 2009, the environment group of issues ranked second behind health among top ten priorities demanding *future* action by government.⁹

Within the range of environmental issues nominated by respondents, those related to water supply/conservation/drought and climate change were the most prominent environmental issues for NSW residents in 2009 (water down slightly and climate change increased markedly from 2006). Energy, air pollution, waste, forests and biodiversity, development, land degradation and mining are also nominated.¹⁰

The ‘Who Cares’ reports also provide information about the level of environmental knowledge in the NSW population. Using five indicator statements, the 2009 survey suggests that only between one-third and half of the NSW population are well informed on key issues – the greenhouse effect, carbon pollution, waterways pollution, water use and recycling.¹¹ This is one indicator of the gap LfS could help to close. When respondents were asked what government should be doing to protect the environment, in 2009, the most commonly mentioned initiatives relate to energy use and greenhouse gas mitigation. However the need to increase education and awareness ranked equal second.¹²

2.2 Forward planning in NSW

NSW 2021: A Plan to Make NSW Number One, is the State’s ten-year plan to guide policy and decision-making in NSW and to deliver on community priorities. Issued in September 2011, *NSW 2021* incorporates important trends towards community development approaches, and it places significant emphasis on local capacity building and local leadership in governance:

We will return as much decision-making as possible to local communities and to those affected by the decisions. In addition, new opportunities for local decision-making by councils, community, business organisations, individuals and neighbourhood groups will be pursued across all government agencies.¹³

⁷ High levels of support for a transition to sustainability can be assessed, for example from the Ipsos study (See section 5) which obtained responses from ‘key informants’ who have existing familiarity with environmental matters.

⁸ NSW Government, 1994, 1997, 2000, 2003, 2006 and 2009, *Who Cares About the Environment?*, Social Research Series, Department of Environment, Climate Change and Water, Sydney.

⁹ NSW Government, 2009, *Who Cares About the Environment?*, p19.

¹⁰ *ibid.*, pp.10–12.

¹¹ *ibid.*, p.30.

¹² *ibid.*, p.19.

¹³ NSW Government, 2011, *NSW 2021: A Plan to Make NSW Number One*, NSW Department of Premier and Cabinet, Sydney, p.42.

This resonates strongly with the approaches and the purpose of LfS as detailed later in this report.

NSW 2021 sets 32 goals and measurable targets, grouped within five areas of strategic priority, and it outlines immediate actions to achieve those goals. As a new LfS framework is devised, it will become a key mechanism for achieving many priorities in the *NSW 2021* plan.

Table 1 (below) indicates the *NSW 2021* goals and priority actions for which LfS is most relevant. Detailed mapping of LfS contributions to *NSW 2021* is beyond the scope of this report. However, here are some examples indicating how LfS can underpin *NSW 2021* goals:

- Learning which increases expertise in managing a low carbon economy will support improvement of economic performance (Goal 1).
- Enhancement of expertise in urban planning, sustainable energy and water management, through formal environmental education, will assist development of public transport, infrastructure and liveable centres (Goals 8, 19 and 20).
- Learning which brings about behaviour change through knowledge about sustainability will enhance opportunities for people to look after their own neighbourhoods and environments (Goal 23).
- Training in facilitation of community development processes linked to sustainability will foster greater involvement of communities in decisions (Goals 24 and 32).
- Cross-sectoral education programs at the level of whole catchments, aimed at community capacity building, will assist to strengthen local communities and protect natural environments (Goal 22).

2.3 Local government planning

In December 2011, the NSW Government released a long-range action plan for local government. Titled *Destination 2036: A Path Together, Draft Action Plan*, it brings together proposals arising from consultations in 2011 involving all local government areas in NSW. A related discussion paper identified wide-ranging concerns for urban, rural and coastal councils, including: complexity in land use planning, waterway pollution, changing population densities, transport issues, bushland under pressure, climate change impacts, mining impacts and the need to manage change rather than respond to it.¹⁴

Destination 2036 anticipates that local communities and therefore government will see considerable transformation over the next 25 years, in response to factors which include climate change, the ageing population and changes in technology. 'Demographic, economic, technological and environmental change will present significant challenges and opportunities to both our communities and the councils that serve them.'¹⁵

14 Elton Consulting, 2011, *Our Communities, Councils, Future, Destination 2036 Discussion Paper*, Division of Local Government, NSW Department of Premier and Cabinet, Sydney.

15 NSW Government, 2011, *Destination 2036: A Path Together, Draft Action Plan*, Division of Local Government, NSW Department of Premier and Cabinet, Sydney, p.5.

Table 1. LfS and NSW 2021

NSW 2021 Strategic Priority Area	Goals Most Related to LfS	Examples of Priority Actions and initiatives (abstracted from <i>NSW 2021</i>) for which LfS will be a key delivery mechanism
Rebuild NSW's economy	1. Improve the performance of the NSW economy	<ul style="list-style-type: none"> • new industry action plans • new jobs action plan • enhanced tourism planning
	6. Strengthen the NSW skill base	<ul style="list-style-type: none"> • work with industry on specialised training programs • more effective cross-sectoral consultation
Return quality services	8. Grow patronage on public transport	<ul style="list-style-type: none"> • sustainable urban growth through more effective and expanded public transport services
	15. Improve education and learning outcomes for all students	<ul style="list-style-type: none"> • a range of actions designed to enhance quality of education through strategies linking industry, community, government and formal/informal education sectors
Renovate infrastructure	19. Invest in critical infrastructure	<ul style="list-style-type: none"> • 20-year infrastructure strategy with nested 5-year plans • renewal of water infrastructure
	20. Build liveable centres	<ul style="list-style-type: none"> • metropolitan, regional and subregional plans, with focus on public transport catchments
	21. Secure potable water supplies	<ul style="list-style-type: none"> • plans for metropolitan and country towns water supply
Strengthen our local environment and communities	22. Protect our natural environment	<ul style="list-style-type: none"> • use local knowledge and experience • multi-pronged actions to conserve biodiversity and native vegetation • Water Sharing Plan and Basin Plan • target waste dumping • Clean Air initiatives, with focus on information for communities
	23. Increase opportunities for people to look after their own neighbourhoods and environments	<ul style="list-style-type: none"> • strong focus on giving local communities control over the quality of built and natural environment • call for expressions of interest on functions to be decentralised and localised • capacity-building and cross-sectoral strategies for catchment management • community-based approaches to waste management
	24. Make it easier for people to be involved in their communities	<ul style="list-style-type: none"> • a whole-of government approach to engaging communities and identifying and building on community strengths
	26. Fostering opportunity and partnership with Aboriginal people	<ul style="list-style-type: none"> • Partnership Community Program to increase governance capacity within communities and strengthen local decision making • enhanced cultural and education programs
Restore accountability to government	28. Ensure NSW is ready to deal with major emergencies and natural disasters	<ul style="list-style-type: none"> • coastal zone management plans in all identified hot spots by 2015 • increased awareness and preparation for fires
	32. Involve the community in decisions	<ul style="list-style-type: none"> • consult on moving more decision-making to schools • work to devolve more decision-making on planning to local level.

The plan dovetails with the forthcoming review of the Local Government Act, and is also designed to harmonise with *NSW 2021* (see above), which gives ‘explicit recognition of Local Government as an important element and contributor to the delivery of the State Plan’. Local government will contribute to regional and local action plans that link to *NSW 2021* and that address the key issues in each region and local area.¹⁶

Destination 2036 delineates 16 strategic directions covering service delivery, governance, financial sustainability, structures, roles and responsibilities and intergovernmental relationships. ‘Sensitive environmental stewardship’ is one key vision element, as is ‘creating places people value’. Just as a new framework for LfS aligns with *NSW 2021*, so too will LfS support local government developments, addressing proposed outcomes of the *Destination 2036* planning process. This will include, for example, educational programs that underpin:

- management of population, business and industry growth in regional, rural and remote areas
- review of the Environmental Planning and Assessment Act to increase flexibility and local autonomy
- greater community awareness and ownership of the Metropolitan Strategy and other city-wide land use planning and local planning for transport
- strategies for enhancing productive agricultural land
- alignment of state, regional and local planning for coastal management, for flooding, and for disaster management.

2.4 Summary

The introduction of a new framework for LfS in NSW is underpinned by the substantial and growing concern about environmental matters in NSW and the aspiration for a transition to sustainability.

The longitudinal study *Who Cares about the Environment?* provides the evidence for this. When respondents were asked what government should be doing to protect the environment, in 2009, the most commonly mentioned initiatives relate to energy use and greenhouse gas mitigation. However, the need to increase education and awareness ranked equal second.

The new ten-year plan *NSW 2021* provides an overarching set of policy considerations and opportunities, many of which are aligned with and can be implemented through LfS. The plan provides a comprehensive suite of aspirations, top-level strategies and specific actions for development in NSW, with an emphasis on devolution of responsibility and leadership to communities, and focus on cross-sectoral integration. LfS complements and supports many of these aspirations and actions. This is most obvious with regard to the fourth of five top-level strategic priorities – ‘Strengthen our local environment and communities’; and with initiatives to enhance education, strengthen skills in industry and improve economic performance.

In NSW a comprehensive review of local government functions and structures is underway, with *Destination 2036: A Path Together, Draft Action Plan* open for consultation and deliberation in 2011–12. There is an opportunity for beneficial linkage between this consultation process and the development of a new framework for LfS in NSW.

16 NSW Government, 2011, *NSW 2021*, p.42–43.

3. LfS in NSW: current arrangements

Among Australian jurisdictions, NSW took early initiative to establish systematic approaches to environmental education. The current review of the NSW LfS harmonises with Australian initiatives related to the UNDES D 2005–14.

This section provides historical background and a summary of current arrangements in NSW.

3.1 Relevant legislation and LfS history

The NSW Council on Environmental Education was established under Sections 26–28 of the *Protection of the Environment Administration Act 1991* (NSW), amended 1998. The Act prescribes an independent chair and 11 council members.¹⁷

After its appointment in October 1999, initially the council issued a discussion paper¹⁸ instituting a ‘stocktake’ of existing environmental education, followed by a consultative planning process. Supported by its secretariat and other staff of what is now OEH, the council consulted widely, prepared successive LfS plans (2002–05 and 2007–10), monitored progress and performance, and facilitated communication and access to information for providers and users.

As the two LfS plans were implemented, the council and its secretariat oversaw the monitoring of progress of the implementation of the plans, through reporting that was compulsory for participant government departments and agencies, and voluntary for participants outside government. This activity created a sequence of documents rich in detail – the two plans, and four annual monitoring reports prepared between 2004 and 2009.

A history of initiatives taken by government, non-government organisations (NGOs) and educational institutions underpinned the NSW LfS plans and the work of the NSW Council. The 1990s saw consolidation of conceptual development inside government, guided by a constituency-based approach and external advice. Driving this, and commencing in the 1980s, were, for example, moves towards a national framework led by the AAEE, expansion of environmental content in school curricula, the search for common language around environmental education, and international initiatives, for example, a citizenship approach to environmental education.¹⁹ Also important was adaptation and adoption of educational and engagement strategies used in other sectors, particularly in health, where an educational approach to combating HIV/AIDS had emerged as world’s best practice.²⁰

3.2 The first NSW environmental education plan 2002–05

The *Learning for Sustainability: NSW Environmental Education Plan 2002–05* aimed at achieving ‘effective and integrated environmental education which builds the capacity of the people of NSW to be informed and active participants in moving society towards sustainability’.²¹ The plan specified seven key outcomes to be pursued by the NSW Government:

- improved integration of environmental education with other tools and strategies used by organisations to promote ecologically sustainable development
- enhanced cross-sectoral coordination of environmental education programs

17 Under the Act, council membership is as follows: government department and agency representation spans portfolios related to environment, planning, conservation and education. The Nature Conservation Council of NSW and the AAEE each nominate a member, as do the Local Government and Shires Association, and peak industry and employer organisations. The university sector provides one representative.

18 NSW Council on Environmental Education, 1999, *Planning for Environmental Education in NSW*, NSW Environment Protection Authority, Sydney.

19 Smyth, J.C., 1995, Environment and education: a view of a changing scene, *Environmental Education Research*, (1)1, pp.3–20.

20 Examples include the ‘Grim Reaper’ advertising campaign and other educational initiatives marketing safe sex; also anti-smoking campaigns.

21 NSW Council on Environmental Education, 2002, *Learning for Sustainability: NSW Environmental Education Plan 2002-05*, NSW Government, Sydney, p.1

- an expansion of partnership and network activities between environmental education providers which enhance the quality and reach of their programs
- improved access of all people in NSW to high quality environmental education programs
- enhanced training, professional development and other support for those developing and delivering environmental education
- increased research and evaluation of effective environmental education
- increased active and informed participation by NSW people in creating a sustainable future.²²

In pursuit of these outcomes, the plan established 39 performance indicators and 61 actions, giving priority to the following:

- more accessible web-based information
- a Sustainable Schools Program
- the Cleaner Production Industry Partnership Program
- regional salinity education
- better community education campaigns,²³ to encourage better locally relevant environmental plans
- actions designed to share Aboriginal knowledge of biodiversity.

The plan extended beyond prescribing outcomes and actions, since it established a scheme of implementation, monitoring and reporting, brought together concepts and terminology and provided a mapping of relevant environmental legislation, policies and programs.

Council reviewed the 2002–05 plan as part of the development process for the 2007–10 plan. Drawing on its three annual monitoring reports, and addressing the seven broad outcomes (above), council found that generally the uptake of environmental education had increased for state and local government.

For example, good progress was evident in the integration of education initiatives in the Metropolitan Water Plan and the NSW Greenhouse Plan. There were improvements in cross-sectoral coordination, and 80 per cent of reporting state agencies had developed environmental education programs with other organisations.²⁴ Partnership and networking activities were demonstrably enhanced, especially for local government. Access to environmental education had grown across the life of the 2002–05 plan, though lack of monitoring data prohibited assessment of the extent to which training and professional development programs targeted at LfS providers were improving or expanding. Research and evaluation had progressed, aided by an instructive 2004 conference titled *Effective Education: What Works? Why? Where and What Next? Linking Research and Practice*.²⁵ Regarding the seventh key outcome, ‘Increased active and informed participation by NSW people in creating a sustainable future’, evidence of increased environmental knowledge, increases in environmental behaviours and enhanced participation emerged through the NSW Government’s state-wide surveys *Who Cares about the Environment 2006* and *The Environment and Ethnic Communities 2004*.²⁶

Across the three annual monitoring reports of the 2002–05 plan, low reporting rates limited the representativeness of the findings for the industry and community sectors, never more than 11 and 14 per cent respectively. About one-third of local councils responded; and in the government sector, despite mandatory reporting, response rates ran between 38–57 per cent. Only among the 11 NSW universities was response high across all years, with 7 responding in 2004, then 11 and 10 respectively in the two subsequent reviews.

²² *ibid.* p2.

²³ For example: *Our Environment – It’s A Living Thing*, and *planFIRST*.

²⁴ The number of reporting state agencies fluctuated across the three reviews of the 2002–05 plan. In the 2004 report, 27 agencies responded (out of 47 requested). In 2006, 20 (out of 43) responded, while in 2008, 39 (out of 103) responded.

²⁵ This conference took place at Sydney 18-24 February 2004. Conference papers are available via the website of the Council on Environmental Education <http://www.environment.nsw.gov.au/resources/cee/>

²⁶ A synthesis of these findings appears in Section 1 of the 2007–10 plan.

3.3 The second NSW environmental education plan 2007–10

The second plan, *Learning for Sustainability: NSW Environmental Education Plan 2007–10*, retained the previous plan's seven key outcomes (see above). There was wide acknowledgment that the stated outcomes of the 2002–05 plan had been ambitious, and council recognised that not all outcomes would be achieved over the first plan's three-year period. Therefore in devising the 2007–10 plan, a significant number of strategies, indicators and actions were rolled over from the previous plan.

The second plan was more comprehensive in mapping challenges, exploring concepts, principles and terminology, and referencing broad educational drivers and priorities. It tied NSW planning to the UNDES 2005–14, and it set out to maximise the value of existing commitments across industry, government and community, and to promote the identification of new sources of funding. In this regard the plan noted significant resources for environmental education from the NSW Environmental Trust, from the NSW Water Savings Fund, and from the NSW Greenhouse Plan, and also reported the partnership between the Total Environment Centre and industry in resourcing forums and debates as educational activities.

There are 66 actions specified in the 2007–10 plan. Action 10 calls for 'State agencies and other providers to deliver environmental education programs as part of significant environmental and natural resources initiatives'. This action incorporates 22 specific tactics to support the integration of educational activities within environmental programs, across all sectors.

In elaborating how Action 10 should be implemented, the plan specifies a set of priority environmental themes for environmental education in NSW, as follows:

- climate change
- total water cycle management
- biodiversity conservation
- landscape management
- sustainable production and consumption
- pesticide and chemical management
- air quality
- sustainable housing and transport.

To date there has been one annual monitoring report, for the period 2007–08, on the progress in implementing the 2007–10 plan.²⁷ That draft report, dated December 2009, is based on returns completed by 127 organisations, and generally indicates significant activity towards all key outcomes, even though it was not clear from the annual monitoring report whether progress had been enhanced since the period of implementation of the first plan (2002–05).

The 2007–08 monitoring report pays particular attention to issues of reporting associated with the Learning for Sustainability plans. Consistently low level of response by environment and other NGOs and industry has made evaluation of progress in those sectors difficult across the decade of the plans. Also, in a system designed for mandatory reporting by government departments and agencies, the around 50 per cent return from state government bodies has meant evaluation of progress is largely confined to the work of 'lead' agencies – those having high levels of explicit responsibility for environmental matters.

Despite limitations of reporting, the review gave evidence that partnerships and collaborative delivery of environmental education activities are widespread, especially for the industry and NGO sectors. For example, 73 per cent of reporting state agencies indicated at least one program developed in partnership with other organisations, reversing what had been an apparent decline in 2005–06. Among other trends, half the state agencies reported at least one new program aimed at

²⁷ Monitoring data collected and collated into a draft report by DECC for the Council on Environmental Education, on the progress on the implementation of Learning for Sustainability 2007–10 for the period 2007–08. (unpublished).

a priority target group. Meanwhile the review found 200 programs targeted rural audiences and Aboriginal and Torres Strait Islander audiences in 2007–08 and these, along with youth audiences, have consistently been the most common targets identified in all plan reviews.

In the 2007–08 monitoring report, when asked to identify which of the plan's eight priority themes they addressed in their environmental education programs, state agencies most commonly targeted biodiversity conservation and landscape management. They also addressed total water cycle management and sustainable production and consumption, though relatively few programs dealt with air quality, sustainable housing or pesticide and chemical management. Local government had stronger focus on biodiversity conservation and total water cycle management, followed closely by climate change, sustainable production and consumption, and landscape management. For industry, sustainable production and consumption dominated, with climate change the next most often dealt with. NGOs reported programs across all themes, with climate change, biodiversity conservation and sustainable production and consumption most often reported.²⁸

3.4 The NSW Environmental Trust: education grants

There are linkages between the Learning for Sustainability plans and many other instruments and programs across all sectors. One such linkage, of significance for resourcing of environmental education, is with the education grants administered by the NSW Environmental Trust.

The NSW Environmental Trust was established in 1993 arising from environmental education objectives, to provide a funding framework for restoration and rehabilitation projects, for research and for education. The educational side was set up to fund 'eco-schools' and community education.

The aim of the Trust's education program is to 'support educational projects or programs that develop or widen the community's knowledge of, skills in, and commitment to protecting the environment and promoting sustainable development'²⁹

The objectives of the education program are to facilitate changes in behaviour, to develop and promote programs and to 'help attain one or more of the outcomes in the NSW Government's Environmental Education Plan, Learning for Sustainability'³⁰

Applicants must address the latter objective by nominating elements of the plan which will be addressed. The grants program fosters innovation, as well as cross-sectoral consultation and partnership development, co-funding arrangements continuing beyond the life of the grant, marketing and advocacy of environmental education, and a research-based approach to project evaluation.

3.5 Links with national and international frameworks

Other relevant and parallel developments across the last decade include a comprehensive national review of environmental education conducted by the ARIES. This was published in 2005 in five volumes, covering Frameworks for Sustainability, School Education, Community Education, Business and Industry Education and Further and Higher Education.³¹

Following this review, in 2009, the Commonwealth Government issued *Living Sustainably: the Australian Government's National Action Plan for Education for Sustainability*. It was prepared in

²⁸ *ibid.*

²⁹ In 2011, funding of \$500,000 was available for Education (community), \$500,000 for Education (state and local government) and \$150,000 for 'Eco Schools', through OEH Environmental Trust Environmental Education Grants. See <http://www.environment.nsw.gov.au/grants/envtrust.htm>

³⁰ Environmental Trust: <http://www.environment.nsw.gov.au/grants/envtrust.htm>

³¹ Tilbury, D., Coleman, V. and Garlick, D., 2005, *A National Review of Environmental Education and its Contribution to Sustainability in Australia*, 5 vols, Australian Government Department of the Environment and Heritage and Australian Research Institute in Education for Sustainability (ARIES), Canberra.

conjunction with the National Council of Education for Sustainability, by the federal Department of the Environment, Water, Heritage and the Arts.³²

Living Sustainably notes that education for sustainability is provided by diverse sources – governments, educational institutions, industry bodies, professional associations, NGOs, community groups, zoos, national parks, aquaria and environmental education centres. It also makes clear the goal of diversified capacity building through 'equipping all people with knowledge skills and understanding necessary to make decisions based on consideration of their full environmental, social and economic implications'.³³ Four key strategies are central to the national plan:

- government leadership
- reorientating education systems to sustainability
- fostering sustainability in business and industry
- harnessing community spirit to act.³⁴

There is emphasis in the national plan on opportunities for harmonisation between jurisdictions, and, like *NSW 2021*, a focus on opportunities for enabling diverse yet integrated actions with governance distributed across all sectors.

Living Sustainably represents a significant contribution to Australia's participation in the United Nations Decade of Education for Sustainable Development (UNDESD) 2005-2014. Further details of the UNDESD appear below in Section 4.

3.6 Summary

In NSW, two decades of development in environmental education saw a shift towards a system-wide approach by the end of the 1990s. Underpinned by the *Protection of the Environment Administration Act 1991* (NSW), NSW established a representative Council on Environmental Education, which was responsible for developing the detailed plan, *Learning for Sustainability: NSW Environmental Education Plan, 2002–05*, which was then reviewed and developed as a second plan for the period 2007–10.

Underpinning the NSW LfS plans and the work of the council was a longer history of initiatives taken by government, NGOs and educational institutions, for example, moves towards a national framework led by the AAEE and expansion of environmental content in school curricula.

The NSW LfS plans and their related monitoring reports give recognition to the diverse and expanding field of LfS in NSW, and the broad scope of environmental, social and economic issues targeted by environmental education. There is clear evidence that LfS initiatives now support the search for solutions across a wide range of critical sustainability challenges. For example, LfS programs are supporting biodiversity conservation, landscape management, water cycle management, sustainable production and consumption, and ways to address climate change.

Across the life of the plans, good progress is evident in the integration of education with other environmental initiatives, for example the Metropolitan Water Plan and the NSW Greenhouse Plan. There have been improvements in cross-sectoral coordination, with a high percentage of reporting state agencies developing environmental education programs with other organisations. Partnership and networking activities have been enhanced, especially for local government, and generally access to environmental education has grown, and with this, enhanced community knowledge of environmental matters. There is evidence of significant increase in the number of LfS programs targeting rural and Aboriginal and Torres Strait Islander audiences which, along with youth audiences, have consistently been the most common targets identified in all plan reviews.

32 The Commonwealth consultations which underpin *Living Sustainably* involved an online survey, expert interviews, community workshops and a government cross-portfolio workshop.

33 Department of the Environment, Water, Heritage and the Arts, 2009, *Living Sustainably: the Australian Government's National Action Plan for Education for Sustainability*, Australian Government, Canberra, p.4.

34 *ibid.*, p15.

In more detailed evaluation of the plans, a consistently low level of response by environment and other NGOs and industry has made evaluation of progress in those sectors difficult across the decade of the plans, while evaluation of progress in the government sector is largely confined to the work of 'lead' agencies – those having high levels of explicit responsibility for environmental matters. These outcomes also indicate that to date the LfS plans have not been embraced to the level of their full potential.

There are linkages between the Learning for Sustainability plans and many other instruments and programs across all sectors. One such linkage, of significance for resourcing of environmental education, is with the education grants administered by the NSW Environmental Trust. Other relevant and parallel developments across the last decade include a comprehensive national review of environmental education conducted by the ARIES, and the introduction, in 2009, of Living Sustainably: the Australian Government's National Action Plan for Education for Sustainability.

Initiatives and plans for environmental education in NSW, and parallel developments in other jurisdictions, represent a significant contribution to Australia's participation in the UNDESD 2005–2014.

Learning for Sustainability: NSW Environmental Education Plan, 2007–10 remains current across 2011–12.

4. Governance: a comparative study

A key piece of research for the current review of LfS in NSW is a comparative study of governance models conducted by John Fien, Professor of Sustainability in the Innovation Leadership program of RMIT University.³⁵ Looking at five jurisdictions, it seeks to identify the characteristics of effective governance frameworks and associated engagement and support strategies for LfS. This research was premised on the view that some level of centralised coordination and support by government would be important in future LfS developments in NSW, at a minimum in order to:

- provide conceptual coherence
- foster common language
- avoid duplication and contradiction at the program delivery level
- ensure neglected constituencies are reached.³⁶

The research generally adopts the terminology 'Education for Sustainable Development' (EfSD) as the name for the field, and the report is headed '*Governance for Education for Sustainable Development*'. This is consistent with terminology used in the context of the UNDESD.

4.1 The need for good governance

This section, and the one that follows, draw from the final synthesis chapter of the comparative study report. The final chapter primarily addresses the nature of governance structures and divisions of responsibilities within government, while exploring underlying assumptions, models of learning and social transition, and the drivers and context of governance structures.³⁷

The report frames a comparative analysis with a discussion of challenges for governance.³⁸ The interpretation adopts contemporary theory about distributed modes of decision-making and action, which sees government as one among many actors in governance, with modes of governance extending beyond formal structures.

That is, in the modern world, community organisations, business, NGOs, media and educational institutions are variously taking more responsibility not only for implementing change programs, but also for leading decision-making processes. There is widespread recognition that educational strategies need integrating across all sectors; and this makes the search for appropriate modes of governance a central concern.³⁹

The comparative study report cites OECD prescriptions of 'Good Governance', relevant to all fields of endeavour, including LfS/EfSD. It explores six characteristics as benchmarks for comparative analysis, with the implication that good governance systems will exhibit:

- *Integrated structures of government*: The optimum is that all relevant ministries and agencies of all tiers of government are coordinated into an integrated structure of support for sustainable development and for sustainability education.
- *Policy integration across and within diverse fields*: Ideally policies would be nested, with action plans for economic, social and ecological integrity, involving a range of approaches and tools, and incorporating education, training and capacity building.
- *Vertical and horizontal coordination*: All efforts should be made to make activities of all actors complementary and supportive.

³⁵ Fien, J., 2012, *Governance for Education for Sustainable Development*

³⁶ *ibid.*, p3.

³⁷ *ibid.*, pp115–50.

³⁸ *ibid.*, p115.

³⁹ Ideas about the changing modes of governance in Australia have coalesced, for example, in a 2007 conference and subsequent publication: O'Flynn, J. and Wanna, J. (eds), 2008, *Collaborative Governance: A New Era of Public Policy in Australia*, ANU E Press, Canberra. (http://epress.anu.edu.au/anzsog/collab_gov/pdf/whole_book.pdf). See Section 6 for interpretation relevant for LfS in NSW.

- *Participation, consensus orientation and responsiveness*: There should be full participation to build consensus from diverse viewpoints, through understanding of and responsiveness to, the historical, cultural and social contexts of the community.
- *Conceptual coherency*: A shared vision of a sustainable society, and of how a transition to sustainability can be achieved.
- *Accountability*: Effective strategies for change need clear lines of responsibility, and sharing of experiences and capacity building across stakeholders.⁴⁰

4.2 Models of governance: international comparisons

The five case studies explore and assess the governance approaches in England, the Netherlands and Germany at the national scale, and Ontario (Canada) and Victoria (Australia) at the provincial/state scale. These jurisdictions were chosen as relevant to future developments in NSW, in having democratic governance and comparable socioeconomic characteristics, and because each is recognised as having a vibrant EfSD community known for innovation and well-developed practice.

The analytical approach benchmarks each jurisdiction against the characteristics of good governance (above), then extracts exemplars for each characteristic as follows: structural integration is best exemplified by the Netherlands, Germany and Victoria, while policy integration is best observed in the Netherlands and to a lesser extent Germany. Both coordination and participation/consensus/responsiveness are most usefully studied in the Netherlands, Germany, Ontario and Victoria. Conceptual coherence is best exemplified in three jurisdictions – England, the Netherlands and Germany; and the Netherlands gives the best example of accountability.⁴¹ Here is a summary:⁴²

Structural integration

- In the case of Victoria, three government departments (Sustainability and Environment, the EPA and Sustainability Victoria) share responsibility for achieving sustainable development goals. Integration is enhanced via a Commissioner for Environmental Sustainability, and through a Sustainability Fund established under the *Environment Protection Act 1970 (Victoria)* and funded through the Victorian Landfill Levy. Community-based EfSD is achieved essentially on a project basis across all departments, despite the lack of a state EfSD policy. EfSD is also achieved through interaction with the Department of Education and Early Childhood Development.⁴³
- Germany has a Council for Sustainable Development comprising 15 public figures from politics, industry, industry bodies and unions, social affairs, church and conservation groups. Under a National Strategy for Sustainable Development, and with a National Parliamentary Advisory Council on Sustainable Development, Germany achieves integration across national bodies, and also vertical integration via a committee of Cabinet Office representatives from all three tiers of government.⁴⁴
- The Netherlands, seen to be the best example of structural integration, has had national EfSD policy since 1988, placing emphasis on both ecological and socioeconomic aspects of sustainability, and therefore achieving wide support across ministries of Environment, Foreign Affairs, Agriculture, Economic Affairs/Energy, General Affairs, Transport/Public Works/Water

40 This summarises the scheme put forward by Fien, 2012, *op. cit.*, pp.115–20, in turn adapted from OECD, 2006 and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). The 2011 UNESCAP publication *What is Good Governance?* is available at:

<http://www.unescap.org/pdd/prs/ProjectActivities/Ongoing/gg/governance.asp>

41 Fien, 2012, *op. cit.*, p.120, see Box 2.

42 This summary is adapted from the comparative study's final chapter, Chapter 7 Synthesis: *ibid.*, pp.121–46.

43 *Ibid.*, pp.121–2, and Box 2 p.123.

44 *Ibid.*, pp.122–3.

and Education. This same successful framework underpins the current national 'Learning for Sustainable Development' program.⁴⁵

Policy integration

- The Netherlands and Germany have strongly embraced the UNDES and the associated actions of the United Nations Commission for Europe. This overarching framework enhances policy integration at the national levels.
- In the Netherlands, a National Sustainable Development Strategy is supported by three independent strategies: a) a focus on six selected themes for action (water, climate, energy, fuels, carbon capture, biodiversity and food); b) the government as leader of sustainable management; and c) government responsibility for leading the dialogue on sustainable development – creating the rationale for the national Learning for Sustainable Development program.
- This program was established by the Parliament of the Netherlands, with a distinctive interdepartmental and inter-governmental policy framework. It articulates with a National Environmental Education Program (NEEP), developed and supported by the ministries for agriculture, environment and education. These arrangements maximise policy integration.⁴⁶

Coordination mechanisms

- In the Netherlands, key mechanisms for coordination of the national Learning for Sustainable Development program include a cross-departmental steering committee, centralised program management, and 12 provincial directors who are responsible for project execution, analysis and dissemination of best practice, bringing parties together, and ongoing partnership building.⁴⁷
- In Germany, the coordination of EfSD is via a National Committee for Sustainable Development, comprising 30 experts from federal and *Länder* ministries, the parliament, NGOs, the media, the private sector and the scientific community. Also, an annual round table assembles more than 100 sustainability stakeholders to consider practical problems and how they can be addressed through coordination structures. The National Committee also convenes working groups to take forward particular cross-sectoral challenges. All this work is tied to the program for action specified by the UNDES.⁴⁸
- Coordination structures in England have been typically driven by alliances of environmental and development NGOs. With funding from diverse sources, 'community-based learning centres, teacher support units and project hubs for environmental, urban and development education have been common features of [England's] EfSD landscape for over thirty years'.⁴⁹
- The situation is similar in Ontario, where, like England, there has been a relative lack of national or provincial level EfSD coordination and therefore a strong and long-running program of community advocacy for EfSD. In Ontario, and across Canada, this has resulted in overarching structures established from the bottom up, for example, an umbrella group 'ESD Canada'⁵⁰ which is a national council linking provincial-territorial working groups.
- Ontario also benefits from the coordinating activities of the Canadian National Roundtable on the Environment and the Economy (NRTEE), which incorporates EfSD objectives and programs. The NRTEE plays a catalyst role, through research and publication and advocacy, including the individual advocacy of its members who are drawn from all social and economic sectors.⁵¹

⁴⁵ *ibid.*, pp.123–5.

⁴⁶ *ibid.*, p.126.

⁴⁷ *ibid.*, pp.126–8.

⁴⁸ *ibid.*, pp.128–9.

⁴⁹ *ibid.* p.130.

⁵⁰ In the title 'ESD Canada', ESD means Education for Sustainable Development, not to be confused with Ecologically Sustainable Development, a term often used in Australia.

⁵¹ Fien *op.cit.*, pp.130–5.

- In Victoria, coordination is promoted through an innovative and ongoing networking process involving community-based events such as Open Space forums. These are organised by Sustainability Victoria and include practitioners from local councils, environment centres, schools and private enterprises, as well as policymakers. A plan for top-down support for new initiatives has recently emerged from this process.

Consensus orientation, consultation and responsiveness

- All five jurisdictions engage in participatory processes designed to enhance openness, responsiveness and consensus in decision-making about EfSD.
- In England, where central coordination is relatively weak, consensus nonetheless arises organically, and is represented in the many innovative ways in which EfSD is integrated in government and agency operations; and in the ground-breaking interventions made by and within civil society, trade unions, universities, colleges and professional associations.⁵²
- Ontario (and Canada more generally) displays the highest degree of participation, even though centralised coordination is relatively weak. For example in Ontario, the development of a public strategy for EfSD involved establishing Environmental Education Ontario (EEON) in 2000, followed by the Education Alliance for a Sustainable Ontario (EASO) in 2005. These mostly voluntary and NGO-driven initiatives have provided a strong network of organisations in Ontario supporting the UNDESD.⁵³

Conceptual coherency

- The Netherlands provides an example of conceptual coherence gained by specifying three different 'audiences' for EfSD, in the form of three 'pillars'. Pillar 1 is *the learning individual* – focus is on the formal education and training sectors at all levels; Pillar 2 is *the learning organisation* – focus is on government and policymaking; and Pillar 3 is *the learning society* – focus is on complex and collective decision-making involving several stakeholders.
- This third pillar in the Netherlands EfSD actively prioritises and promotes 'social learning' – ways for people to learn from each other through creating trust and social cohesion, to create ownership of the learning process and of the solutions arising.⁵⁴
- Overall the Netherlands approach to EfSD is to predicate a sustainable society on a continuous learning process, aiming to strengthen the capacity of individuals, communities and organisations to make sustainable development part of their lifestyle.⁵⁵
- German EfSD is based on the concept of *Gestaltungskompetenz* (design competence), with sub-competencies related to OECD competence categories. EfSD is viewed as an essential process of *innovation*, with the 'entrepreneurial green citizen' as the key actor.
- In England, a 'Triangle of Change' envisages mutually supported changes in individual, corporate and government actions as part of the process of *cultural change*. This approach seeks change through encouraging new behaviours and changing cultural values.⁵⁶

Accountability: effectiveness and efficiency

- Among the case studies, only the Netherlands' Learning for Sustainable Development program exhibits a comprehensive evaluation regime. This involves continuous monitoring throughout the course of the program, as well as annual formal evaluations at three levels – the overall program, the audience type (pillar) and project levels. Assessment criteria at the program level are in accord with UN indicators for EfSD, while at the audience level, two special work teams

⁵² The United Kingdom (UK) example indicates that, as Fien puts it, 'even without co-ordination, a thousand flowers have bloomed.' *ibid.*, p.134.

⁵³ *ibid.*, p.134.

⁵⁴ Fien, *op.cit.* p138–9. Fien notes progress with social learning models in Australia, for example through the Citizen Science program of the Cooperative Research Centre (CRC) for Coastal, Estuary and Waterways Management.

⁵⁵ *ibid.*, pp.125–6.

⁵⁶ *ibid.*, pp.140–4. See Knott, D., Muers, S. and Aldridge, S., 2008, *Achieving Culture Change: A Policy Framework*, Cabinet Office, London.

have been appointed to review activities within each 'pillar'. The first of these teams is focused on formal education, while the second evaluates the progress with government uptake and broad social learning.⁵⁷

- The Netherlands' Learning for Sustainable Development program is one of three independent strategies that are evaluated via a national sustainability monitoring process conducted by the Central Bureau of Statistics.⁵⁸

4.3 Lead agencies

The comparative study report allows identification of the leadership roles played by government departments and agencies. As indicated above, partnership approaches that involve several departments, agencies and non-government actors are common to all five jurisdictions. At the same time, all jurisdictions show a history of specific initiatives led by entities with direct responsibility for environmental and sustainability outcomes.

Based on the case studies, three general types of leadership roles are evident: a) policy development and the production of key policy documents; b) ongoing implementation, management and monitoring of programs; and c) establishment and/or funding of partnership structures that play leadership roles. Examples include:

- The UK environment and education departments jointly sponsored the Sustainable Development Education Panel prior to 2003, with its policy development responsibility.
- The UK environment department established the Sustainable Development Commission from 2000–11. It leads sustainability policy thinking and has produced a number of research reports and briefs related to community transitions for sustainability. The environment department also takes a lead in producing key policy documents.
- The Netherlands Learning for Sustainable Development program is jointly sponsored by a wide range of ministries, including environment and education, as well as provincial authorities; though it is managed via the Ministry of Economic Affairs, Agriculture and Innovation.
- In Germany the Federal Chancellery created the Council for Sustainable Development in 2000–01, which is a key driver of EfSD.
- At federal level, German environment and education ministries have joint leadership roles in EfSD; meanwhile state (*Länder*) environment ministries take the lead.
- In Germany, key EfSD initiatives are also led from the German United Nations Educational Scientific and Cultural Organisation (UNESCO) Commission, which is charged with implementing the UNDESD.
- The lead EfSD body in Ontario, EEON, was established with leadership from the NGO movement, though it has federal funding from the Canadian environment ministry.
- The Ontario education ministry takes the lead role in monitoring environmental education.
- In Victoria, historically the Department of Sustainability and Environment and the Department of Premier and Cabinet have taken key leadership roles in establishing and maintaining EfSD initiatives, with the environment department producing the key LfS strategy documents.
- Victoria's Department of Education and Early Childhood Development produced its complementary environmental education strategy in 2005.
- Sustainability Victoria and the Victorian Commissioner for Environmental Sustainability are seen to have leadership roles that include enabling delivery of educational programs.

⁵⁷ *ibid.*, p.144.

⁵⁸ *ibid.*, p.24.

4.4 Policy implementation

This section draws further on the individual case studies (Chapters 2–6 of the comparative study report), to explore the implementation of strategic frameworks and enabling policy documents. It is not possible to summarise all the dimensions of implementation conveyed in the comparative study, and the reader is referred to the details of the report. Some diagnostic examples include:

- In England, the last decade has seen a sequence of frameworks and associated policy documents that have influenced the development and integration of EfSD. For instance, in 2000 a key publication, *Life Skills for a Sustainable Future*, was instrumental in revision of the National Curriculum; and by 2003 the Sustainable Development Education Panel had completed work to create a long-term strategy for EfSD, which was updated in 2005 as *Learning for the Future*. This is designed to work in harmony with the UK government's sustainable development strategy, documented in *Securing the Future*.⁵⁹
- The Sustainable Development Commission fostered a substantial research program around the role of government in supporting business and communities to effect behaviour change towards sustainable lifestyles. Outputs included a series of significant reports on sustainable lifestyles, behaviour change, sustainable consumption and sustainable retailing. The concept of education as cultural change (see above) underpinned a 2008 Cabinet discussion paper *Achieving Culture Change: A Policy Framework*.⁶⁰
- This model raised questions about the extent to which government can and should intervene to effect cultural change, given the critique of 'social engineering'. With this in mind, in England/UK, the Sustainable Development Commission has recommended intervention in the form of consistent policies to achieve sustainability through changes in attitudes, values, and aspirations and enhanced cultural capital. This scheme is laced through with strategies for environmental education – in schools, environment groups, peer networks, mentoring arrangements, neighbourhood planning, national debate and dialogue and cross-sectoral partnerships.⁶¹
- The German experience of harmonising with the UNDES D has seen the National Committee for Sustainable Development put forward themes, one for each year, to provide a focus for EfSD activities within the states and municipalities, and to activate new partners and facilitate communication of the concept and aims of EfSD.
- In Germany, another key instrument of the UNES D is the program *Alliance Learning Sustainability*, which awards 'Project of the Decade' status to innovative projects. The award does not include funding, but carries high recognition value. Currently more than 1000 projects are endorsed.
- Meanwhile, an example of implementation at the German state level is the North German Alliance in Support of the UNDES D (NUN). This alliance is pursuing a certification system for non-formal EfSD providers in the NUN member states, installing interstate education programs and conducting marketing and advocacy.⁶²
- In the Netherlands there have been two iterations of the National Learning for Sustainable Development program, based on the concept of continuous learning (see above). Each phase has been expressed through key policy statements: Phase 1: *From Margin to Mainstream (2004–07)* and Phase 2: *From Strategy to General Practice (2008–11)*. The names convey the key strategic intent of these developments.⁶³
- In 2003, EEON produced a 'public strategic plan' titled *Greening the Way Ontario Learns*.⁶⁴ This plan, produced and implemented through voluntary mechanisms, and driven by NGOs,

⁵⁹ Fien, *op. cit.*, p.10. *Securing the Future* is available at http://www.desd.org.uk/Departmental_Initiatives.htm

⁶⁰ *ibid.*, p.140–4. See Knott *et al.*, 2008.

⁶¹ *ibid.*, p.144, see Box 11.

⁶² *ibid.*, pp.50–3.

⁶³ *ibid.*, pp.121–2, and p.123, Box 2.

⁶⁴ EEON, 2003, *Greening the Way Ontario Learns: A Public Strategic Plan for Environmental and Sustainability Education* (<http://www.eeon.org/>).

issues an 'invitation' to adopt prescribed strategies. The plan provides detailed guidance across 17 'audiences' which include formal and non-formal EfSD providers, civil society, aboriginal peoples, business, government and families.⁶⁵

- In Victoria, the ten-year strategy *Learning to Live Sustainably* provides a framework for development of education and behaviour change programs for environmental sustainability. Alongside this, the state's Sustainability Fund supports community groups, local governments, businesses and industry in delivering projects, with approximately \$167 million provided between 2005–10. Guided by the state Sustainability Action Plan, the fund has provided approximately 30 per cent of its total funding to sustainability education and behaviour change projects.⁶⁶

⁶⁵ *ibid.*, pp.80–94.

⁶⁶ Fien, *op. cit.*, pp.103–5.

4.5 Evaluations and key lessons

This section provides glimpses of how EfSD developments in each case study jurisdiction have been evaluated. The comparative study report tabulates key lessons from each jurisdiction.

In **England**, reports by the UK Commission for UNESCO in 2008 and 2010 drew attention to a number of gaps and challenges, mentioning tensions between campaigning and learning in EfSD and highlighting the need to maintain a holistic rather than narrow 'eco-' view of sustainability. It indicated the need to find more synergy between formal and informal EfSD sectors and between relevant government departments, with the need for better evaluation. The 2010 report indicated a lack of capacity building, including a lack of professional development for EfSD providers.⁶⁷ Fien makes a number of suggestions arising from the England/UK case study, with emphasis on the opportunity for governments to activate networking, information sharing, and monitoring and evaluation.

An effective dissemination and capacity building strategy is needed to ensure that the agencies and organisations responsible for implementing EfSD are aware of, understand, and are capable of adapting and using the recommended evidence-based models and strategies.⁶⁸

From the **Netherlands** case study, there are lessons from the gaps identified in a SWOT analysis. Although this shows that EfSD has generally moved from the margins to the mainstream in the Netherlands, further work is needed to overcome time lag in implementing sustainability programs generally, and in particular in integrating EfSD programs in schools and supporting networks, since 'deep change takes much longer than the [Learning for Sustainable Development] program has been in operation.'⁶⁹ The key lessons from the Netherlands include the benefits of a strong policy framework that is whole of government and widely disseminated, adaptable across diverse jurisdictions and consistent in philosophy and direction. Effective capacity building within agencies and the role of social learning are to be emphasised.

Experience of EfSD in **Germany** has been generally positive, and the German Council for Sustainable Development (RNE) has played a key role in evaluation, producing a sequence of reports which most recently include recommendations for enhanced coordination across the *Länder*, further mainstreaming of EfSD, better professional development for teachers and other providers and integration of EfSD more explicitly within curriculum at all educational levels, among many other recommendations. More specific recommendations include incorporating EfSD in education standards, employing EfSD as a concept for innovation and quality management (with a federal forum to that end), and use of sustainability auditing and ranking for public institutions.⁷⁰ Key lessons include confirmation of the benefit of a strong policy framework, with strong alliances working to effect horizontal and vertical integration, and clear consistent messages disseminated widely as a cohesive vision. The German concept of *Gestaltungskompetenz* (design competency) emphasises EfSD as a medium for innovation, and this way of conceptualising the field enhances potential for expanding the involvement of industry in sustainability initiatives. However:

It is of the utmost importance to conceptualise the environmental, social and cultural needs as having priority, with science and technology and business and industry serving those for a truly sustainable society.⁷¹

In **Ontario**, the public strategy *Greening the Way Ontario Learns* is yet to be formally evaluated. However there is strong anecdotal evidence and widespread sectoral support favouring the strategy. Strong positive impacts on school education are reported, and EfSD has been made an integral element across the entire curriculum, with comprehensive goals, strategies and evaluation criteria now in place. Consideration of the Ontario experience again confirms benefits of strong

⁶⁷ *ibid.*, p.18.

⁶⁸ *ibid.*, p. 20.

⁶⁹ *ibid.*, p.31.

⁷⁰ *ibid.*, pp.62–5.

⁷¹ *ibid.*, p.67.

policy frameworks, of a cohesive vision, and of networking and where possible ‘round table’ processes, with working groups established and mentored by government.

Alongside lessons from other jurisdictions, the case study of **Victoria** shows a gap in evaluation mechanisms, and the need therefore to shift towards qualitative indicators, with these to be established through consultative approaches. As in other jurisdictions, government departments and agencies need to mainstream EfSD within their own institutions while creating more intergovernmental cooperation over the long term. Also, government officers responsible for EfSD need to become key influences in policy development, and:

Government needs to be comfortable in its responsibilities for leading cultural change for sustainability and able to justify this and the ethics of the approaches being used.⁷²

4.6 Summary

OECD prescriptions of ‘Good Governance’ are relevant to all fields of endeavour, including LfS. In a study of five jurisdictions, six characteristics of good governance are used as benchmarks for comparative analysis, with the implication that good governance systems for LfS will exhibit:

- *integrated structures of government*
- *policy integration across and within diverse fields*
- *vertical and horizontal coordination*
- *participation, consensus orientation and responsiveness*
- *conceptual coherency*
- *accountability.*

The five case studies explore and assess the governance approaches in England, the Netherlands and Germany at the national scale, and Ontario and Victoria at the provincial/state scale.

Structural integration is best exemplified by the Netherlands, Germany and Victoria, where high-level representative bodies steer policy development, initiate research and provide advocacy. Policy integration is best observed in the Netherlands and Germany, which currently harmonise their activities with the UNDESD, and where environmental education is implemented in conjunction with interdepartmental and intergovernmental frameworks and is strongly supported by several ministries.

With regard to coordination and role of government, there are centralised structures in all the jurisdictions studied, though the character of these structures varies significantly. The Netherlands provides the best example of coordination for EfSD legitimated by support from a wide range of ministries and characterised by centralised program steering and management. England appears to provide a distinctive example of government as supporter of decentralised responsibility for EfSD, with strategies dominated by the aim of enabling the field by providing policy-relevant research rather than centralised planning and program management.

Participation, a consensus orientation and responsiveness are characteristic of all jurisdictions. However, in England and Ontario, where there is less centralised coordination, consensus building arises through dispersed and diverse networks and their innovations.

Conceptual coherence is best exemplified in three jurisdictions – England, the Netherlands and Germany. The Netherlands promotes social learning and three ‘pillars’ – *the learning individual, the learning organisation and the learning society*. Germany models an ‘Environmental Citizenship’ approach, reliant on the *entrepreneurial green citizen* to deliver innovations through learning, while England best exemplifies LfS as cultural change, encouraging new behaviours and changing cultural values.

⁷² *ibid.*, p.110.

Regarding leadership of EfSD, generally, governance mechanisms rely on partnership approaches in all five jurisdictions, although specific leadership initiatives have been crucial to driving policy development, the establishment of structures and ongoing implementation. Government environment departments are the most common lead agencies across the jurisdictions studied, though education departments are invariably involved in EfSD partnerships. Central bodies such as the German Chancellery and Victoria's Department of Premier and Cabinet have also played key leadership roles, as have specialised agencies and commissions established to enable partnerships and structural integration.

There is a wide range of policy frameworks and associated documents in use across the five jurisdictions under study. Examples include:

- two phases of the National Learning for Sustainable Development program in the Netherlands, with associated key policy statements: *From Margin to Mainstream (2004–07)* and *From Strategy to General Practice (2008–11)*
- England's long-term strategy for EfSD, which was updated in 2005 as *Learning for the Future*, in harmony with the national sustainable development strategy, *Securing the Future*
- policy development driven by NGOs and networks in Ontario, where LfS has been most strongly advocated by civil society, and the EEON produced a 'public strategic plan' titled *Greening the Way Ontario Learns* in 2003
- Germany's implementation of EfSD which is strongly allied to UNDESD, and programs include the scheme of endorsing 'Projects of the Decade', and yearly 'themes' which bring focus to EfSD activities
- Victorian implementation via its ten-year strategy *Learning to Live Sustainably*, with Victoria's Sustainability Fund providing approximately 30 per cent of its total funding to sustainability education and behaviour change projects.

Few jurisdictions exhibit wholly successful evaluation and accountability systems, though the Netherlands' Learning for Sustainable Development program exhibits a comprehensive evaluation regime and there is a national sustainability monitoring process conducted by the Netherlands Central Bureau of Statistics.

As evaluation of programs proceeds, each of the jurisdictions reports many positive developments. As gaps have been identified, recommendations for improvement have emerged, with relevance for the NSW review of LfS. There is:

- opportunity for governments to activate networking, information sharing, and monitoring and evaluation
- need to affirm governments' role and responsibility for leading cultural change
- benefit in alliances and networks, and in allowing for policy initiatives driven from outside government
- need to prioritise capacity building, including professional development for LfS practitioners
- need for strong policy frameworks with conceptual coherence
- advantage of aligning LfS with 'innovation', to secure the involvement of industry and business while prioritising environmental, social and cultural needs.

5. Stocktake 2011: views from the field of LfS

This section presents findings from three sources of stakeholder perspectives. The common objective of these studies is to evaluate progress in sustainability education in NSW, and to gather ideas about future developments in LfS. Each study is summarised separately, and Section 5.4 provides a synthesis.

5.1 Strategic Forum Learning for Sustainability in NSW Beyond 2010

OEH and AAEE NSW hosted the Strategic Forum Learning for Sustainability in NSW Beyond 2010 in December 2010 and attended by 50 participants.⁷³ Its 'open space' approach encouraged broad-ranging discussion around a central theme with an agenda created by the participants. The purpose was to hold 'an initial discussion with a group of invited practitioners and thinkers to begin to establish where we, as an education community, believe sustainability education should be heading in the next decade'. Participants' affiliations ranged across local and state government, the university sector, TAFE and state training services, government environment agencies, industry and consultancy firms.

Here is a digest of the ideas generated by participants:

Towards a new LfS framework

- The context for LfS has evolved since the implementation of the 2002 and 2007 plans, and we should be open and confident about possible new frameworks, and coordinating structures, to be devised through consultative processes.
- The field of LfS would benefit from new alliances and also a working-group model, reflecting new diversity in sustainability education, to create a broad base for advocacy.
- We can build from the existing continuum of LfS across NSW, to work cross-sectorally while recognising the diverse motivations of each sector.
- Conceptually it is important to see innovation for sustainability as linked to broader business innovation, and to see sustainability as a means of securing business advantage.

Government in partnership

- Government is best placed to coordinate development of a cohesive approach to LfS, while establishing the means for devolved implementation of educational and engagement programs. 'People who live and work in the community will have greater success in achieving the framework.'
- There is a need to enhance the coherence of a centrally coordinated framework for LfS and simultaneously to 'make sustainability education something that a broader cross-section of the community relates to, including business, community, NGOs and government'.
- In taking a leadership role, government should emphasise partnerships with key organisations that would enhance the capacity of all sectors to deliver LfS programs. With this, comes a recognition that government could 'let go' of specific environmental issues in favour of providing a framework in which local communities will find their own solutions to environmental problems.
- Government agencies need to work together to ensure effective coordination and greater reach of programs, and to integrate LfS with all other tools for change.
- Cross-sector partnerships will work best if they are based on meaningful connections, which may be issue based. An 'energy focus' or a 'water focus' could be examples. Inside

⁷³ The Open Space forum took place in Sydney on 10 December 2010 with Viv McWaters from Beyond the Edge as facilitator.

government these may mean distributing LfS leadership to several agencies. (the 'Office of Water Education' approach.)

- Government should recognise and help to further develop existing educator networks and clearing houses for sustainability education.

Conceptual coherence

- We should reaffirm that education and change management share the same goals and strategies.
- The focus of education should be on enabling behaviour change and actions at the local level: 'Learning for sustainability is about the conscious creation of our future places'.
- LfS should support place-based approaches to learning, and recognise the relevance of 'learning by doing' connected to the protection of places.
- LfS must be multi-dimensional, with engagement and capacity building as both objectives and strategies.
- LfS strategies should assume the social dimension of environmental problems and the complexity of human responses required.
- There is benefit in building distributed capacity as the antidote to complex and uncertain futures, 'to bring to bear the richness of "wisdom of the crowd" ... in light of the best evidence'.
- Opportunities exist to enhance lifelong learning for sustainability through integration with early childhood programs and that sector's networks of professionals.
- Principles of environmental ethics should underpin LfS.

Development of the field

- LfS in NSW needs an active and supported sustainability education profession, with recognised professional standards, accredited and audited courses, and a role for government in enhancing educators' capabilities.
- The field needs to educate employers about why the skill sets of professional environmental educators are important; and there is a need to map the jobs market for environmental educators which goes well beyond the formal education sector.
- Environmental education in the university sector is lagging behind and should be enhanced.
- We should recognise and develop community development approaches generally, with specific attention to facilitation skills, regarding 'sustainability facilitators' as organisational change agents working in a community development mode.
- There should be support for community capacity builders, and for networks of leaders in the LfS field, enabling such people to lead change in their own communities, and to share these experiences across networks.
- Innovation is needed in funding models, to place greater focus on community capacity building for LfS.
- Funding should also be directed towards network development, and towards mechanisms for 'showcasing' examples of transitions enabled through LfS.
- The relationship between capacity building and community-based sustainability initiatives, problem solving and social change needs further mapping.
- With government support, LfS should continue to underpin new initiatives and the review of existing programs with rigorous research. The knowledge needed is complex, and must be culturally appropriate, and the field needs to be itself highly educated.

- There is a need for better access to LfS tools through sharing of good practice. Specifically, opportunities are needed to showcase the ‘business case’ for sustainability, with examples shared across networks.
- The LfS field needs to modernise approaches to sharing information and experiences, ensuring new communications technologies and systems are tapped.

5.2 Stakeholder interviews

In June 2011, OEH undertook 25 structured interviews with key informants from stakeholder groups, to gain an understanding of the current status of sustainability activities and sustainability education in various sectors of the NSW community, namely formal education, community, government and business and industry.

The following is a summary of preferred language and vision around education for sustainability, current sustainability activities/programs, drivers of and barriers to further development, and assistance needed from government and others.⁷⁴

Language around education for sustainability

- The term ‘education’, although used widely, is often taken to mean formal education. Within the education sector the preferred terminology ranges from ‘teaching and learning’ (universities and schools) to ‘learning experiences’ (early childhood) and ‘training’ or ‘capacity building’, vocational education and training (VET).
- In government, ‘education’ may include ‘personal/skills development’, ‘networking’, ‘engagement’ and ‘workshops’. Local government interviewees suggested that ‘consultation’, ‘awareness raising’, and ‘informing’ are examples of informal activities, usually not labelled as ‘education’.
- Meanwhile across community and industry there is a wide variety of other substitute or component terms. These include ‘learning’, ‘capacity building’, ‘living sustainably’, ‘mentoring’, ‘story telling’, ‘story sharing’, ‘behaviour changing’, ‘skills development’, and ‘workforce development’.

The meaning of ‘sustainability’

- All sectors are familiar with and use the term ‘sustainability’. Although some interviewees expressed concern that it has been overused, there is also indication that familiarity with and understanding of sustainability has increased over the last 2–3 years (see below).
- Many interviewees have a broad holistic understanding of sustainability as comprising environmental/ecological, economic, social and cultural/governance aspects. Some expressed this with the phrases ‘triple bottom line’, ‘quadruple bottom line’, ‘the three pillars of sustainability’, and ‘sustainability of the resource, the business and social/emotional (mental) health’.
- For environment groups, the school sector and some businesses, sustainability is viewed primarily in environmental/ecological terms. The environmental emphasis can have negative connotations for some businesses of imposing costs, whilst others view sustainability in resource efficiency terms and associate it with financial savings. This has led some business groups to prefer the use of the term ‘business sustainability’ to emphasise the financial goals of business viability and productivity of sustainability.
- There are a minority of organisations for which the term ‘sustainability’ refers solely to the future viability and productivity of their organisation and/or sector, without any consideration or reference to environmental factors.

⁷⁴ Extracted from an internal OEH document Summary of LfS Stakeholder Interviews, June 2011.

Preferred title for the field

Interviewees were asked to comment on three options:

- *Education for sustainability*: it was noted this was the only internationally recognised term amongst the three, and that the term 'education' is already in use at the program level, for example in 'education for water'. The interviews indicate that the term is well understood and liked among sustainability education practitioners and within the university sector. However, in some quarters there is concern that 'education' means formal education only. There is additional support for 'education' when emphasis is given to its transformative meaning.
- *Skills for sustainability*: interviews suggest that this is likely to be preferred by business and industry, and local government, although in both sectors there are concerns about the use of the term 'sustainability' (see above). The term is likely to resonate with the early childhood sector, the VET sector, and Landcare, but less so with the university sector. There is overlap with the term 'green skills', for example in the VET sector.
- *Learning for sustainability*: this was preferred by interviewees representing the school and early childhood sectors, and was thought to also have wider immediate resonance, for example with Landcare. Other interviewees saw it as too academic. Representatives of the business and industry sector preferred the term 'learning' over 'education', but had concerns about the term 'sustainability'.

Sustainability education activities: what works?

- An extensive range of activities and programs is being undertaken across all four sectors in sustainability and sustainability education. Many activities are built around particular issues: examples given include climate change, water, green procurement, biodiversity conservation, wildlife protection, marine protection, natural resource management, chemicals and transport.
- Most activities also have wider though related goals including infrastructure development, improved data collection, partnership development, staff engagement, achievement of qualifications, re-skilling and up-skilling.
- Interviewees pointed to a wide range of specific tools, and most indicated means of integrating those tools within projects and programs. Approaches that work well across many sectors are characterised by integration of sustainability with other issues and measurable outcomes, including educational and financial benefits.
- The most successful activities have practical emphasis, use and share case studies, utilise workshops and involve peer sharing/peer group learning. They also make relevant use of internet-based and/or social media and e-learning
- Financial assistance and subsidies are regarded as critical to the development of LfS.

How has the understanding of sustainability changed?

- Most interviewees feel there have been significant changes over the past 2 to 3 years in their sector in relation to sustainability awareness and understanding.
- Among the business and industry sector, there is a more holistic understanding of sustainability, a greater openness to discussing sustainability and resource efficiency, greater awareness of climate change and energy efficiency, and more engagement in sustainable business improvements to achieve cost savings and competitive advantage.
- There is a change in community awareness, norms and expectations for sustainability, such as community expectation for schools to provide environmental understanding and to teach about their local environment, and change in community awareness and community norms and in demographics in rural and regional areas.
- There is a wider range of programs, including an increase in resource efficiency programs/activities, especially energy efficiency programs (business/industry, schools,

universities), and more and better government programs for a wider range of industries. Sustainability is now central in decision-making in water authorities.

- There is an increase in focus on sustainability in the VET sector, with more familiarity though not yet 'drive' in the university sector.
- Construction industry, health sector and community development sectors in local government are three examples of 'low hanging fruit' – areas where progress has been slow, and there is significant opportunity to enhance sustainability awareness and action, and LfS.

Drivers towards sustainability and towards enhanced LfS

- There is rising receptivity to programs and activities that help people learn about and take action to be more sustainable.
- A broad range of reasons was given as to why sectors are doing more, and many of these are common across sectors.
- Where cost savings and a well-made business case can be presented, and if financial assistance can be found in the seeding stages, organisations are more inclined towards initiatives.
- Individual champions within organisations/communities, and senior management support/leadership are crucial drivers.
- Community/student/parent expectation and environmental awareness has risen, and in conjunction with the material conditions of environmental change, and media coverage of sustainability issues, this is driving interest in LfS.

Barriers to achieving ongoing sustainable behaviour

Interviewees across all/most sectors reported the following barriers:

- lack of/limited funding and resources with greater demands on existing resources
- cultural barriers
- lack of senior management/executive support and leadership
- difficulty in measuring and demonstrating the longer term outcomes of education, and also a lack of internal capability to interpret and use data
- difficulty engaging some groups
- other organisational priorities.

The best ways to engage or interest sectors in sustainability programs and activities

These are largely sector specific, although across all sectors interviewees pointed to:

- the need to articulate financial and other benefits, from the perspective of the sector/organisation, for example to demonstrate how environmental education can assist in solving the big ticket issues (such as Aboriginal education) in the school sector
- the need to provide financial assistance, especially in the early stages of activities
- the need to engage the executive leadership of organisations, while working with intermediaries and champions.

Assistance needed from government

Based on interviewees' responses, the help needed from government and others is largely sector specific, though all mention the need for enhanced and targeted funding programs and for long-term support. Participants called for government to:

- remove barriers associated with complex funding application processes
- assist in measuring activities and their contribution to sustainability, for example benchmarking teaching and learning at universities
- translate sustainability targets for schools
- support local partnership/joint projects, support and resources, for example reading lists for teachers, website information and tools
- install better and tighter regulations, especially in mandatory qualifications
- include education outcomes in the state plan
- support networks so they can self-direct
- provide business with understanding of sustainability and its value to their business, and with technical support to translate sustainability into their business models and outcomes
- provide more examples of good practice (case studies, articles, etc.). For example, give specific assistance for consultants who are leaders in the field to share their learning with peers
- develop a NSW framework for sustainability learning to unify people around the same goals, and broad enough to include sustainability practitioners (not just educators).

Vision

In the final part of their interviews, participants discussed possible visions for development of LfS in NSW. Prompted by a vision statement adapted from the 2007–10 environmental education plan, interviewees made the following responses:

- Any vision would need to promote and characterise the value of the educational toolbox, while also framing education as a tool to be integrated with other approaches and programs.
- A vision statement would need to be aspirational and encompassing, resonating with a broad audience, with individuals and with organisations, and be contextualised within a broader sustainability vision for NSW. It would need to be consistent with and nested within other government policies
- An LfS vision for NSW should relate to people in their work contexts, to participants in educational programs, to leaders in business and other sectors, and to people taking action in their everyday lives.
- The specific wording of a vision statement should reflect the need to be collaborative, to enable actions, to link *being informed* with *being active*, and to express the desire for a sustainable future.

Several examples of wording were discussed, including:

- 'Education that enables the people of NSW to be informed and active participants and to work together towards a sustainable future'. (This was the starter statement, adapted from the 2007–10 Learning for Sustainability plan.)
- 'Programs that build the capacity of the people of NSW to work together proactively to develop resilience in our landscapes and communities'.
- 'Learning that enables [people within an organisation or community] to work together towards an environmentally sustainable future'.

5.3 Online survey

This section provides a summary adapted from the research findings of an online survey conducted for OEH by Ipsos Social Research Institute.⁷⁵

The overall aim of this research project was to assist in identifying current and emerging trends in sustainability education and engagement across all sectors, but particularly education, government, community and business, and to assess these sectors' needs in relation to enhancing their work in these fields.

Sample characteristics

A total of 358 people participated in the online survey, representing a broad range of roles involved in sustainability across the four key sectors. They included high-level sustainability strategists, middle management sustainability officers and sustainability educators. The survey was administered via an online survey link between 30 June and 31 July 2011.

The local government sector comprised 32 per cent of participants; 25 per cent were from the community sector; 18 per cent from the formal education sector; 15 per cent of participants from the state government sector, and of these, half (50 per cent) were employed in environment, land or water management organisations. The business and industry sector comprised 11 per cent. Nearly two thirds (61 per cent) of participants were from a major city, while a quarter (25 per cent) were from inner regional areas, and 14 per cent were from outer regional areas.⁷⁶

The sample was further characterised by the roles of participants, and by whether they worked directly in roles related to sustainability:

Forty-three percent of participants were in mid-level roles such as program officer/coordinator, project manager, facilitator or educator. Almost a quarter (24%) of participants were in senior management or executive roles. In the business and industry sector half of participants were in senior management positions, significantly more than in other sectors.

Three quarters (76%) of participants worked in sustainability education. Two-thirds (65%) of participants spent at least 50% of their work time on sustainability related activities. Those in local government were more likely than others to spend over 80 percent of their time on sustainability related activities.⁷⁷

The following summary provides selected findings from the survey. Attention is given to the overall preferences across the sample, and significant points of variation between sectors are mentioned. The Ipsos study also presents the range of preferences across different roles participants play in their organisation and across their ages and experience. The reader is referred to the full online survey report for this detail.

Sustainability in NSW organisations

Survey participants were asked to state the primary meaning of sustainability in their organisations. Three of the options expressed environmental content: 'environment/ecological sustainability', or 'quadruple bottom line', or 'triple bottom line'. 'The vast majority of participants (93%) indicated that their organisation conceptualised sustainability in a way that included environmental sustainability.'⁷⁸

Sustainability in internal operations was seen as *very important* by 52 per cent of participants and 33 per cent of participants said it was *somewhat important*. While the community sector is more likely to see sustainability as *very important*, with regard to internal operations, 'Those in local

⁷⁵ Elgood and Clark, 2012, *Sustainability Education and Engagement in NSW: 2011 Online Survey Report*, Ipsos Social Research Institute, Sydney. Text from this survey report has been incorporated throughout this summary. The original authors are acknowledged.

⁷⁶ *ibid.*, p.5–7.

⁷⁷ *ibid.*, p.7.

⁷⁸ *ibid.*, p.16.

government tended to state that sustainability was less important to their organisation compared to those in other organisations.⁷⁹

Referring to activities, goods and services delivered externally, 61 per cent said sustainability was *very important* while it was *somewhat important* to a further 31 per cent. Again, it was the community sector that most often stated the importance of sustainability, with 85 per cent indicating that sustainability is *very important* to external operations.⁸⁰

Key drivers for the implementation of sustainability initiatives in participant organisations included: sustainability being part of the organisation's core values (26 per cent of first mentions); concern about the natural environment (15 per cent); and concern about health, wellbeing or environmental quality (11 per cent).

The 'audiences' for sustainability initiatives have bearing on how LfS activities might be targeted. For over half the participants (59 per cent) *community* was one primary audience, with the local government and community sectors most likely to identify community as their main audience, along with government sector participants working in environmental areas. In the education sector *students* and also institutions' own teaching *staff* are key audiences, while for business and industry 53 per cent of participants indicated that *customers or clients* were a key audience.⁸¹

Sustainability education and engagement in NSW

The terms 'education' and 'engagement' are frequently used and recognised across all sectors. (Each of these two terms was favoured by 65 per cent of respondents.) 'Capacity building', 'skills development', 'training' and 'teaching and or learning' are all recognised by between 35-47 per cent of the sample.

'Education/training' was mentioned by 65 per cent of participants as a main internal tool in environmental initiatives, and 82 per cent mentioned it for external initiatives. This preference was uniformly high across all sectors, though lowest for business and industry. While 54 per cent mentioned 'motivation', 'engagement and awareness activities' for internal use, 66 per cent mentioned them for external initiatives. Again, these tools appear to be widely used across all sectors, with the community sector in the lead.⁸²

The use of education and engagement tools sits alongside a range of other means for pursuing sustainability objectives. For example, local government is more likely than other sectors to use purchasing and procurement, although this is an important internal mechanism for all sectors. Strategies directed at organisational culture and values were also frequently nominated across all sectors – highest as a tool in business and industry.⁸³

With regard to both internal and external uses of education and engagement, more than half of survey participants stated that such activities addressed sustainability either *extensively* or *significantly*, meaning high levels of integration of education in sustainability activities. The survey indicates the highest levels of such integration in the community and business sectors.⁸⁴

The most commonly mentioned driver in choosing to use education in sustainability programs was an understanding of the contribution education can make to sustainability, with 44 per cent of participants mentioning it.⁸⁵ Other significant drivers are belief in education as core business, internal capacity and expertise, external demand for education, availability of external funding and other resources, and staff interest, especially interest from senior management.

There were differences across sectors regarding the importance of these drivers. The study indicates that State Government is more driven than other sectors by policies, plans and standards. The idea that education is core business dominates in the education sector, though it is also

⁷⁹ *ibid.*, pp.17–18.

⁸⁰ *ibid.*, pp.17–19.

⁸¹ *ibid.*, pp.19–21.

⁸² *ibid.*, pp.28–30.

⁸³ *ibid.*, p.23.

⁸⁴ *ibid.*, pp.33–5.

⁸⁵ *ibid.*, p.38.

nominated as a first ranked driver by around 30 per cent of respondents in all other sectors except local government, where only 5 per cent nominated it.

The most commonly mentioned barrier to choosing to use education in sustainability programs was lack of external funding and other resource issues, with 51 per cent of participants stating it was a barrier. The community sector, and also participants from regional areas, perceive this barrier most strongly, with 54 per cent of community respondents and 46 per cent of regional respondents stating it as the most important. Other significant barriers are insufficient senior management leadership and support, lack of priority for sustainability and for education, lack of understanding of the benefits of sustainability, coordination issues and a change-averse culture.

Key areas of focus, educational goals and methods

The goals of sustainability education that respondents gave most weight to in their work are building knowledge about sustainability, influencing people to adopt practices or behaviours, developing skills for the workplace or daily life and developing positive attitudes. These goals were all used by over 80 percent of the sample and were quite uniformly expressed across all sectors and roles. With regard to a fifth goal, developing capacity for problem analysis and critical thinking, it was the education sector that most commonly expressed this intent, while a sixth goal, reflection on values, unsustainable systems and envisioning a better future, was least used across all sectors.⁸⁶ Yet the last two goals, least seen as a part of their work by educators, are cited as two of the key aspects of education for sustainability as a path to change in much of the thinking and work in this area.⁸⁷

Regarding issues covered by sustainability education, resource efficiency in energy, water and waste provided the top three concerns for sustainability engagement or education initiatives. Other issues in the top ten include green procurement, sustainable building and landscape design, climate change, sustainability principles and concepts, promotion of health and social wellbeing, biodiversity and conservation, marine protection and land management and rehabilitation.⁸⁸ There are differences in emphasis across sectors, for example local government is focused on waste management and reduction, while State Government ties sustainability education to protection and conservation of Aboriginal and/or European cultural heritage to a greater extent than other sectors. Energy efficiency was particularly important for those educating their own internal audiences (92 per cent).

Community was regarded as the key audience for sustainability education by 59 per cent of respondents, though this reflects the influence of the government sectors on the sample. In the business sector, customers/clients were regarded by 53 per cent as the main target. Internal staff are also a main audience (32 per cent of the total sample indicated this).

A wide range of tools is in use, with the top five being face-to-face delivery (talks, presentations, demonstrations, seminars, conferences), print information, practical workshops, events and internet/social media. The least commonly listed forms of information delivery in this area included development of formal education courses and mentoring. There was variation in sector responses, with, for example, local government more reliant on print information, practical workshops, mass media communications and events, while formal courses dominate the education sector and social media and mentoring are more commonly employed in the community sector.⁸⁹

⁸⁶ *ibid.*, pp35–6.

⁸⁷ For example, Australian Research Institute in Education for Sustainability, Macquarie University, 2009, *Education for Sustainability: The Role of Education in Engaging and Equipping People for Change*, Australian Government, Canberra; and Department of the Environment, Water, Heritage and the Arts, 2009, *Living Sustainably: the Australian Government's National Action Plan for Education for Sustainability*, Australian Government, Canberra.

⁸⁸ Elgood and Clark, 2012, *Sustainability Education and Engagement in NSW: 2011 Online Survey Report*, Ipsos Social Research Institute, Sydney. Text from this survey report has been incorporated throughout this summary. The original authors are acknowledged. P.46.

⁸⁹ *ibid.*, pp.43–5.

Evaluating sustainability education in NSW

Almost all (99 per cent) participants agreed that education/engagement was an essential tool for developing sustainable communities. In total, 81 per cent agreed that sustainability education/engagement is becoming more important in their role/organisation. Seven out of ten participants agreed that sustainability education/engagement suffers from a lack of strategic direction.

There were relatively high levels of awareness of the NSW *Learning for Sustainability* plans among those in the sample, particularly those who spend more than 80% of their work time on sustainability issues (72%) and those who are members of sustainability organisations (86%). Only 10% of participants indicated that they had not read the 2007-10 Plan.

When asked to rate the importance of including existing plan outcomes in future LfS developments, there was strong support (74-89% for each outcome) for continuing work towards the goals of the current *Learning for Sustainability* plan. The two highest ranked outcomes were 'Active and informed participation by NSW people in creating a sustainable future' and 'Integration of education with other tools and strategies used by organisations to promote sustainability'.⁹⁰

In evaluating the effectiveness of the LfS plans, 64% of respondents believed that the objective of integrating education with other tools is going ahead with either *a lot of activity* or *moderate activity*. Only 13% believe this is *not happening at all*. The perception is similarly favourable regarding the objectives of partnership building and networking between providers.

Future developments and improvements

Survey participants were asked to suggest additional goals. Only 40 participants responded to this open question and of these about one fifth listed goals in each of three areas: standards, certification and regulation/legislation (20%), support for educators (20%) and relevance of programs for audiences (18%). Improving the community's 'literacy' around sustainability was mentioned by 15%, as was the funding and resourcing of education.⁹¹

Several future support strategies were proposed and participants were asked to indicate their support. There was strong support (79%) for an integrated sustainability policy that includes education/engagement, while 75% of respondents supported an education/engagement framework describing broad sustainability outcomes to which all organisations could contribute. Support was lower (63%) for a detailed plan describing objectives and outlining outcomes for each sector.

71% of respondents were in favour of having a group/body that provides strategic direction and co-ordination to assist organisations with educative/engagement to meet their sustainability objectives.⁹²

Funding was mentioned by 37% of participants as an additional form of support that would help their organisation or sector deliver sustainability education/engagement.

Communication networks were mentioned by almost a fifth (18%), and government support through regulation or legislation by 15%.

When survey participants were asked to select the best term for describing sustainability education/engagement activities, the top five options, in descending order of preference were 'Education for Sustainability', 'Capacity Building for Sustainability', 'Sustainability Skills Development', 'Sustainability Education and 'Learning for sustainability'.

5.4 Synthesis of stakeholder perspectives

In synthesising the findings of stakeholder perspectives, the focus is on the implications for future developments of LfS in NSW, and more specifically on the initiatives that the 'field' of LfS regards as state government responsibility. Here the term 'field' is taken to mean primarily the individual

⁹⁰ *Ibid.*, p.61.

⁹¹ *Ibid.*, pp.62-63.

⁹² *Ibid.*, pp.63-64

practitioners, networks, alliances and organisations involved in policy formation, decision making, implementation and delivery, research, monitoring, evaluation and advocacy related to LfS.

The findings arise from three sources: An on-line survey with 358 respondents, a set of 25 stakeholder interviews, and an 'open forum' of 50 stakeholders; all these consultative processes took place between late 2010 and mid 2011.

Those involved represent all LfS sectors – across tiers of government and agencies, business and industry, communities and NGOs and education practitioners. All have a high level of familiarity with education and engagement for sustainability in NSW, and the vast majority of participants have indicated that they and their organisations conceptualise sustainability in a way that includes environmental sustainability.

Participants' views are sufficiently overlapping to allow aggregation of responses, around:

- Vision
- Towards a new LfS framework
- Conceptual Coherence
- Government in Partnership
- Sectoral priorities
- Development of the Field

Vision

Any vision would need to frame education as a tool to be integrated with other approaches and programs, and should be contextualised within a broader sustainability vision for NSW. It would need to be consistent with and nested within other government policies. A LfS vision for NSW should relate to people in their work contexts, to participants in educational programs, to leaders in business and other sectors, and to people taking action in their everyday lives.

The specific wording of a vision statement should reflect the need to be collaborative, to enable actions, to link *being informed* with *being active*, and to express the desire for a sustainable future. Examples favoured by participants include:

- 'Education that enables the people of NSW to be informed and active participants and to work together towards a sustainable future'.
- 'Programs that build the capacity of the people of NSW to work together proactively to develop resilience in our landscapes and communities'.
- 'Learning that enables [people within an organisation or community] to work together towards an environmentally sustainable future'.

Towards a new LfS framework

The context for LfS has evolved since the implementation of the 2002-05 and 2007-10 *Learning for Sustainability Plans*, and the LfS field should be open and confident about possible new frameworks, and coordinating structures, to be devised through consultative processes.

New alliances are needed, reflecting new diversity in sustainability education, to create a broad base for advocacy. Achieving this means building from the existing continuum of practice across NSW, to work cross-sectorally while recognising the diverse motivations of each sector.

Several future strategies for coordination were proposed and participants were asked to indicate their support. From the online survey, there is strong support (79 per cent) for an integrated sustainability policy framework that includes education and engagement.

In addition, 71 per cent of respondents were in favour of having a group/body that provides strategic direction and coordination to assist organisations with education and engagement to meet sustainability objectives.

Conceptual coherence

- There is a need to enhance the coherence of a centrally coordinated framework for LfS.
- The top four goals of sustainability education mentioned by respondents in the online survey are: building knowledge about sustainability, influencing people to adopt practices or behaviours, developing skills for the workplace or daily life and developing positive attitudes. Based on key informant interviews, the emphasis of sustainability education should be on enabling behaviour change and actions at the local and 'place-based' level.
- LfS must be multi-dimensional, with engagement and capacity building as both objectives and strategies. There is benefit in building distributed capacity as the antidote to complex and uncertain futures. However, the relationship between capacity building and community-based sustainability initiatives, problem-solving and social change needs further mapping.

Government in partnership

- Government should coordinate development of a cohesive approach to LfS, while establishing the means for devolved implementation of educational and engagement programs. In taking a leadership role, government should emphasise partnerships with key organisations that would enhance the capacity of all sectors to deliver LfS programs. Also, government agencies should work together to ensure effective coordination and greater reach of programs, and to integrate LfS with all other tools for change.
- Government should recognise and help to further develop existing educator networks and clearing houses for sustainability education, and support networks so they can self-direct.
- One particular area of focus for any future governance model should involve integrating sustainability education with other tools to reach sustainability outcomes. This will involve enhanced cross-sectoral coordination of sustainability initiatives. Cross-sector partnerships must be based on meaningful connections, which may be problem based.
- With government support, LfS should continue to underpin new initiatives and the review of existing programs with rigorous research and showcasing of best practice. The provision of research outcomes and case studies remains a crucial government role, and with government support, the LfS field needs to modernise approaches to sharing information and experiences, ensuring new communications technologies and systems are tapped.
- Specifically, opportunities are needed to showcase the 'business case' for sustainability, with examples shared across networks. Government should help provide organisations with understanding of sustainability and its value to their business, and with technical support to translate sustainability into their business models and outcomes.
- There is an important continuing role for government funding. The most commonly mentioned barrier to choosing to use education in sustainability programs was lack of external funding and other resource issues, with 51 per cent of participants stating it as a barrier. Innovation is needed in funding models, to place greater focus on community capacity building for LfS, and funding should also be directed towards network development, and mechanisms for 'showcasing' examples of transitions enabled through LfS.

Sectoral priorities

- The response from local government survey participants indicates strong potential for furthering LfS through the activities of education officers. However key barriers, including lack of leadership from top organisational levels, need to be overcome. Breakthroughs will occur where structural support for education officers can be enhanced, and this may require innovative strategic support from State Government.
- The need to engage business and industry is a priority, and it is important to see innovation for sustainability as linked to broader business innovation, and to see sustainability as a means of securing business advantage.

- State Government sustainability program managers have a strong outward focus and are well tuned to the relevance of LfS in other sectors. The management of networks is therefore a priority role for State Government, requiring staff proficiency in collaboration and engagement.
- The community sector expresses keen awareness of resourcing constraints and at the same time gives relatively strong emphasis to community development strategies. Together these characteristics indicate the need to prioritise ongoing structures that will enable community-led initiatives.
- Survey responses from the formal education sector express concern about lack of priority for sustainability among other education priorities. Developments in the sector should prioritise ways to enhance organisational support for sustainability education within the curriculum. The implementation of uniform national curriculum by 2014 is significant for this, since this includes sustainability as an element.

Development of the field

- LfS in NSW needs an active and supported sustainability education profession, with recognised professional standards, accredited and audited courses, and a role for government in enhancing educators' capabilities.
- The field should recognise and develop community development approaches generally, with specific attention to facilitation skills. 'Sustainability facilitators' should be regarded as both organisational change agents and leaders working in a community development mode.
- There should be support for these community capacity builders, and for networks of leaders in the LfS field, enabling such people to lead change in their own communities, and to share these experiences across networks. Individual champions within organisations and communities, and senior managers who provide support and leadership are crucial drivers, and these people should have access to professional development programs.

6. Discussion: the future of LfS in NSW and critical questions

This Research Synthesis Report is not designed to provide a set of specific recommendations for LfS development in NSW. It is, however, an important stepping stone and will inform future directions of LfS in NSW. In this final section, the discussion draws out further implications and interpretations emerging from the research. Three key questions are raised with preliminary responses.

6.1 What conceptual framework(s) for LfS could NSW adopt?

Diverse characteristics and terminology

A range of preferred *characteristics* of LfS has come from the online survey, from interviews and from desktop research, and they are not mutually exclusive. Many sources indicate that LfS is holistic in essence, and as addressing the triple or quadruple pillars of sustainability. Others see LfS as inherently a partnership or networked activity, while others emphasise the benefits of themed approaches based on particular environmental issues. LfS as design competence, LfS as innovation, or LfS as a mainstreamed and integrated process are other conceptualisations.

In total, the research has revealed a trend towards *diversity* in the ways individuals and jurisdictions conceive of and name the field. With regard to the name, tempting as it is to adopt the terminology of the UNDESD, the research has shown that in the naming of policies, programs and projects, other terminology and other concepts will continue to thrive. 'Learning' is as common as 'education'. 'Engagement' or 'awareness raising' or 'training' or 'skills development' or 'innovation' will have particular resonance in particular contexts.

Vision

The research is also equivocal on specific formulations of a vision statement. To reiterate, general ideas arising from interviews (Section 5.2) indicate that a vision should:

- promote and characterise the value of the educational toolbox, while also framing education as a tool to be integrated with other approaches and programs
- be aspirational and encompassing, resonating with a broad audience, with individuals, with organisations and with communities, and be contextualised within a broader sustainability vision for NSW. It would need to be consistent with and nested within other government policies
- relate to people in their work contexts, to participants in educational programs, to leaders in business and other sectors, and to people taking action in their everyday lives
- reflect the need to be collaborative, to enable actions, to link *being informed* with *being active*, and to express the desire for a sustainable future.

Transformative capacity building

Overall, the research has revealed multiple ways to conceive a conceptual framework for LfS. At one level, LfS might be seen as a strategy for achieving specific organisational objectives – for example LfS as a means of growing the skill base of a company or educating a community to the benefits of recycling or water conservation, or LfS as an element of a disaster management protocol. In a broader sense, LfS can be framed as education that promotes *behaviour change* conducive to the implementation of sustainability policy.

More holistic framings would give strong emphasis to the *transformative* functions of LfS. In this way of thinking, in addition to being a delivery mechanism for policies and programs, LfS is a means of giving control to individuals, organisations and communities – through developing their *knowledge base* and building their *capacity* to undertake change, enabling their informed and

deliberative responses to a wide range of sustainability challenges involving social, economic and ecological dimensions.

Social learning

The comparative study of five jurisdictions (Section 4) has provided a number of specific conceptual framings of LfS, and one or more of these could be brought centre-stage in NSW.

Perhaps most appealing, and already familiar to some stakeholders in NSW, is the Netherlands' delineation of three 'audiences' which then become the 'pillars' for LfS – 1) the learning individual; 2) the learning organisation; and 3) the learning society. This suggests comprehensive *social learning* that is continuous across life's structures and across time, and requires adaptive styles of policymaking and implementation, with phases and cycles that frame and reframe the objectives and approaches of public policy.

This is not to suggest that cohesion around the concept of social learning already exists in NSW, and even if it did, the key challenge of how it translates on the ground would remain. In the Netherlands, as summarised in Section 4, Pillar 1 *the learning individual* places the focus on the formal education and training sectors, and this could readily transfer in the NSW context. Pillar 2 *the learning organisation* is most concerned with government and policymaking, and in NSW could extend to both local and state government and to industry and business. Pillar 3 *the learning society* implies focus on learning that relates to complex and collective decision-making involving several stakeholders; this would mean actively prioritising ways for people to learn from each other through creating trust and social cohesion, to foster ownership of the learning process and of the solutions arising.

Though beyond the scope of this report, it would be feasible to map the NSW field of LfS and its programs against these three 'pillars' of social learning, to identify gaps and opportunities.

6.2 What model(s) of governance and support are relevant to LfS in NSW?

Network governance and collaboration

Most analysts of governance in democratic states believe styles of governance in the 21st century are markedly changed from their more hierarchical antecedents:

In the Twentieth Century, hierarchical government bureaucracy was the predominant organisational model used to deliver public services and fulfil public policy goals ... the hierarchical model is in decline, pushed by governments' appetites to solve ever more complicated problems and pulled by new tools that allow innovators to fashion creative responses.⁹³

As complex challenges expose the limitations of hierarchical governance, it gives way to 'complex public-private, network-to-network collaboration models' and to the concept of 'governing by network'.⁹⁴ This is:

A new government model, in which executives' core responsibilities no longer centre on managing people and programs but on organising resources – often belonging to others – to produce public value.⁹⁵

This approach requires knowledge sharing which enhances learning across networks that are inclusive of community, business and government sectors. From the government perspective, the development of network capabilities assists government to 'better integrate and align its own strategic objectives with those of its partners'.⁹⁶

⁹³ Eggers, W.D., 2008, 'The changing nature of government: network governance', in O'Flynn J., and Wanna, J., (eds), *Collaborative Governance: A New Era of Public Policy in Australia*, ANU E Press, Canberra, p.23.

⁹⁴ *ibid.*, p.23.

⁹⁵ *ibid.*, p.23.

⁹⁶ *ibid.*, p.24.

The most fundamental capability for all agencies and individuals involved in network governance is collaboration, though the scale, purpose and sophistication of collaboration can vary enormously. While 'low' levels of collaboration can amount to information gathering and consultation, at the 'higher' levels, it involves strong engagement of stakeholders in decision-making, joint funding programs between stakeholders, devolved decision-making and coordination powers, and ultimately:

Transformative interaction between network actors; substantive engagement and empowerment; search for high degree of stakeholder and inter-actor consensus and cooperation; coalition building by government and non-government actors.⁹⁷

How are models of network governance and collaboration relevant to LfS development in NSW?

The research has provided strong evidence that stakeholders anticipate the building of new alliances and development of networks, with cross-sectoral approaches that recognise diversity. They envisage all tiers of government working in partnership with the formal education sector, with business and with communities to develop the field of LfS, to communicate best practice, and to foster, though not 'control' initiatives from many sectors (Section 5.1).

As discussed in Section 4, the international comparative study points to new distributed modes of decision-making and action, which sees government as one of many actors in governance which relies on collaboration across networks. The research findings show network governance in action in all the jurisdictions studied – creating and developing decision-making networks and drawing on diverse creativity and imagination for policy development, and for action.

There are many networking structures evident in these other jurisdictions. Examples include the devolution of executive responsibility for the Netherlands LfS program to provincial directors, themselves also responsible for partnership building; and the network approach in Ontario, which is built from NGO-driven policy initiation and involves government as the source of funding. The working groups of Germany's National Committee for Sustainable Development are other examples of networked coordination structures, as are bodies in Germany and the Netherlands that implement the UNDESD. England shares responsibility for LfS development and delivery across community-based learning centres, teacher support units and project hubs, while in Victoria, coordination and new initiatives arise through networked community events involving practitioners from local councils, environment centres, schools and private enterprises, as well as policymakers.

Distributed leadership

In the responses from stakeholders and LfS practitioners across all sectors, there is also a strong sense of *shared responsibility* for taking policy initiatives and for leading development and implementation of LfS across the field (Section 5). This aligns with another body of contemporary theory on *distributed leadership* that relates generally to the behaviour of organisations and their networks, but is also specifically characteristic of educational networks – including groupings of professional educators and also participants in non-formal learning and teaching networks.⁹⁸

In the distributed leadership model, leadership is regarded as an 'emergent property of a group or network of interacting individuals'.⁹⁹ Distributed leadership promotes concertive action which draws on pooled initiative and expertise to produce outcomes beyond what could be achieved through the individual actions of agencies or individuals. The model does not negate the importance of 'top down' championing or the relevance of individual initiative, but it does imply an 'openness of the boundaries of leadership', allowing for a widening of the network of leaders. It also encompasses

97 Wanna, J., 2008, 'Collaborative government: meanings, dimensions, drivers and outcomes', in O'Flynn J., and Wanna, J., (eds), *Collaborative Governance: a new era of public policy in Australia*. Table 1.1. Wanna provides a summary of the scale and degree of collaboration, as well as an overview of collaboration in public policy.

98 For a comprehensive review of this literature see Bennett, N., Wise, C., and Woods P., 2003, *Distributed Leadership*, Open University, National College for School Leadership. This review relates firstly to distributed leadership in the school systems internationally, but also references wider organisational examples. The most important work cited is Gronn, P., 2002, 'Distributed Leadership', in Leithwood, K., Hallinger, P., Seashore-Louis, K., Furman-Brown, G., Gronn, P., Mulford, W., and Riley, K., (eds) *Second International Handbook of Educational Leadership and Administration*. Kluwer, Dordrecht.

⁹⁹ Bennett *et al.*, 2003, *op.cit.*, p.7. See previous note.

the view that varieties of expertise are to be found and drawn out across a community or a network, with thought and action initiated and led by contributors with particular relevant skills.¹⁰⁰

In a recent experiment on learning networks for climate change education in Australia, distributed leadership is characterised by:

actions identifiable as leadership that are enacted within and by groups rather than by individuals holding prescribed hierarchical roles. Development of this leadership capacity [enables] network members and networks as a whole to find innovative and inspiring ways of taking responsibility for improving teaching about climate change.¹⁰¹

In this example, the scales at which distributed leadership operated ranged from individual classrooms to a network of educators at the organisational level, and beyond to a national network. It therefore indicates the relevance of distributed leadership across the wide LfS field.

Together, the case studies covered in the comparative study (Section 4) suggest the operation of distributed leadership at several levels. Where centralised government coordination has been weakest (England, Ontario), the policy initiatives and practical innovations of dispersed and diverse actors have been crucial drivers in the development of environmental education, and the existence of identifiable and active networks has been the precondition for the emergence of such leadership. In the more tightly structured governance arrangements of Germany and the Netherlands, power-sharing has distributed responsibility for bringing forward initiatives and leading program implementation, with government in some instances playing a mentoring role in acknowledging and promoting these dispersed leadership responsibilities.

Good governance

Governance may be changing to 'governing by network', or 'network governance' with reliance on collaboration and distributed leadership, but this is no assurance that governance will be coherent and successful. Indeed, governance by network raises questions about how to determine and protect core values and how to manage accountabilities and potential risks across networks.¹⁰²

As a benchmark, the comparative study (Section 4) has introduced the prescriptions for 'good governance' adopted by the UN and the OECD, and relevant for effective implementation of the governance by network described above. To summarise, good governance systems will exhibit:

- integrated structures of government
- policy integration across and within diverse fields
- vertical and horizontal coordination
- participation, consensus orientation and responsiveness
- conceptual coherency
- accountability.

Section 4 shows the extent to which these characteristics emerge in the five jurisdictions studied, and they provide many indications of opportunities to enhance LfS in NSW.

To restate some examples: Germany's National Council for Sustainable Development with its membership of 15 public figures representing many sectors enables structural integration to be 'driven from the top'. Meanwhile the Netherlands' successful sharing of responsibility for its LfS program across six government departments shows the importance of integrative policy and management structures and, not least, strong commitment across environment, infrastructure, energy, education and agriculture ministries. Meanwhile steering committees, annual round tables, formal alliances and open space forums are coordination mechanisms operating successfully in

¹⁰⁰ *ibid.*, p7.

¹⁰¹ Davison, A., Pharo, E., Warr, K, with contributions from Abuodha, P., Boyd, D., Brown, P., Devereux, P., Egan A., Hart, G., McGregor, H., Rooney, M. and Terkes, S. 2011: *Demonstrating Distributed Leadership Through Cross-Disciplinary Peer Networks: Responding to Climate Change Complexity*, Final Report, Australian Learning and Teaching Council, Sydney.

¹⁰² Eggers, 2008, *op.cit.*, p.26.

the studied jurisdictions. For both conceptual coherency and accountability, a preferred approach seems evident in the Netherlands' learning society model of three 'pillars' (see Section 6.1), with annual monitoring and review of activities within each 'pillar'.

Other considerations

Together, the concepts of network governance, distributed leadership and good governance could provide a framework for developing LfS in NSW. As outlined in Section 2.2, there is strong resonance between such approaches and the style of governance enunciated in the new State plan *NSW 2021* – which values local initiatives and promotes government-sponsored devolution of decision-making to local government, business and community.

One further matter arising is that the distributed leadership model implies the need, also identified in the research, for enhanced professional development across the LfS field, aiming to acknowledge and build the capacity for individuals and groups to confidently take up leadership roles. This is discussed further below.

Finally, if distributed leadership, and governance by network, are to be celebrated and harnessed in the NSW approach to LfS, then it is possible to imagine alternative names for the field, or for particular governance structures within the field. Examples would include a 'Leadership network for environmental education', or a 'Learning network for sustainability education'.

6.3 What could be the role of the NSW government in LfS, and what coordination and support structures are appropriate?

Realignment of government roles

The network governance and distributed leadership models imply changing roles for government departments and agencies engaging in LfS:

networking means letting go to some extent in order to achieve better outcomes for citizens ... The day-to-day business of working in networks is infinitely more complex and more difficult than managing a traditional bureaucracy.¹⁰³

These challenges are mentioned in the stakeholder research (Section 5). Respondents have described the need for government to emphasise partnerships with key organisations, to further develop existing educator networks, to network internally throughout and across relevant departments and agents, and generally to foster 'meaningful connections'. The intention should be to provide a framework in which local communities and organisations will find innovative solutions to environmental problems through transformative applications of LfS.

The comparative study has further clarified the leadership role played by government, as discussed in Section 4.3. All the jurisdictions studied show the importance of initiatives, most commonly originating in environment and/or education ministries. Historically, these have seen government promote and then devolve policy development and implementation as well as distributing the continuing function of enhancing partnership and networking arrangements.

This has implications for individual roles and responsibilities of State Government officials – it makes management of networks a key attribute, with proficiency required in team building, collaboration among diverse contributors, and engagement and negotiation. It also requires the ability to co-manage third party service providers in a way that maintains core values across a network.¹⁰⁴

Possible coordination structures

A continuing State Government role would be the sponsorship and resourcing of key coordinating structures. The scheme of these can be reviewed in the light of research findings and the opportunities offered by network governance and distributed leadership. Provisionally, and in

¹⁰³ Eggers, 2008, *op.cit.* p.26–8.

¹⁰⁴ *ibid.*, p.26.

general terms only, some options for developing new coordination and support structures could include:

- a high-level coordination mechanism, for example, a steering committee with membership of prominent individuals representing many sectors
- broader-based structures for engagement, collaboration, consultation and participation, such as an annual round table involving facilitators and practitioners. This should have a policy-initiating function
- specialist and focused mechanisms for policy development and strategic planning, for example, working parties focused respectively on a) research, evaluation and documentation of best practice; b) training and professional development with a focus on leadership capacity and skills; and c) resourcing issues.

The development or introduction of coordinating structures should be contingent on a review of capacity, including leadership capacity, to develop and implement LfS in relevant NSW government departments and agencies and generally across the field.

Funding programs

Research findings (Section 5.2) imply that a funding program for LfS should be both responsive to short term initiatives from the field, and through its funding categories also address local priorities more comprehensively and in the long term. Sector-specific needs have been mentioned in stakeholder interviews; also prominent is the need for State Government support for partnership development and network infrastructure, for documentation of good practice and for professional development that is for educators and facilitators of LfS programs.

It is beyond the scope of this research synthesis to provide a detailed assessment of the existing funding landscape for LfS, or to make particular recommendations; and only preliminary suggestions are offered. Priorities would include:

- partnership development – funding to seed, establish or extend network and partnership arrangements, to thereby enhance capability for mounting future project and programs.
- organisational funding that is either long term – for example funding to organisations to support programs, including positions – or short term seeding funds.
- projects – funding for initiatives normally of short to medium term duration, with documentation of best practice a requirement. Possibly to include quick response – flexible funding of small grants with no set deadline.
- advocacy – funding for events and other activities whose primary purpose is to extend the visibility and credibility of the field of LfS.
- professional development – funding for LfS practitioners to develop leadership capacity and specific skills, with requirement for grant recipients to reflect on and document practice.¹⁰⁵

6.4 Final summary

Since the 1980s, education has been integral to NSW sustainability strategies, supporting policies, legislation and incentive schemes needed to protect the environment and sustainably manage resources. Across the last 10 years since the first NSW environmental education plan was implemented, the landscape of LfS has changed. Innovative, non-traditional modes of community education about sustainability are emerging across sectors that historically did not incorporate sustainability, but are now including it in their education and practices.

¹⁰⁵ The suggestions listed relate to funding models used in community development sectors. See for example the range of funding programs offered previously by the Community Cultural Development Board of the Australia Council, or its successor the Community Partnerships section of the Australia Council.

The new LfS framework will therefore need to acknowledge and encompass other sectors and new approaches to environmental education that may not have been considered part of the previous framework. Some key questions arise:

First considering **how LfS might be conceptualised**, the research has revealed multiple responses. LfS can be seen as the means to achieve specific policy objectives, as education that promotes behaviour change conducive to the implementation of sustainability policy, and as a means of giving control to individuals, organisations and communities – through developing their capacity to respond to a wide range of sustainability challenges.

An appealing way to gain conceptual coherence is the Netherlands' delineation of three 'audiences', which then become the three 'pillars' for LfS. The scheme suggests comprehensive social learning that is continuous across life's structures and across time, by placing focus on 1. *the learning individual* 2. *the learning organisation* and 3. *the learning society*.

On **the nature of governance models for LfS**, the research has provided strong evidence that stakeholders anticipate the building of new alliances and development of networks, with cross-sectoral approaches that recognise diversity.

Such a vision is consistent with contemporary models of '*governing by network*' or '*network governance*', which have emerged as the 21st century response to the demands of complex policy challenges and the limitations of hierarchical approaches. The comparative research shows network governance in action in all the jurisdictions studied – creating and developing decision-making networks and drawing on diverse creativity and imagination for policy development, and for action.

An allied concept is '*distributed leadership*' which relates generally to the behaviour of organisations and their networks, but is also specifically characteristic of educational contexts. It describes the leadership that arises in networks, drawing on diversity of expertise rather than prescribed hierarchical roles, to create initiatives that total more than could be achieved by the actions of separate agencies or individuals. Distributed leadership is evident in the experience of LfS in both the Australian and overseas jurisdictions studied for this research.

Network governance raises questions about how to determine and protect core values and how to manage accountabilities and potential risks across networks. Principles of good governance explored in this report and continuing roles for centralised government are essential to effective and productive network arrangements.

There are **changing roles for government departments and agencies engaging in LfS**. Initiatives such as those taken by Environment and/or Education Ministries have been crucial to LfS development. Increasingly, these have seen government promote and then *devolve* policy development, implementation and partnership-building functions to local levels.

In this there are implications for individual roles and responsibilities of state government officials – it makes management of networks a key attribute. A continuing State government role would therefore be the sponsorship and resourcing of **key coordinating structures**. In NSW, some options for developing new coordination and support structures could include:

- A high-level coordination mechanism representing relevant sectors.
- Broader-based engagement and policy forming structures such as an annual roundtable.
- Specialist and focussed mechanisms (working parties) for policy development and strategic planning.

The research implies the need for a funding program for LfS that is responsive to short term need and also addresses priorities more comprehensively and in the long term, for example through support for partnership development and infrastructure. Documentation of best practice and professional development are in need of support.

Together, the concepts of governance by network, distributed leadership, good governance and the revitalised role of government in promoting and supporting yet devolving policy and implementation, could provide a framework for developing LfS in NSW. As previously discussed, there is strong resonance between such approaches and the style of governance enunciated in the

plan NSW 2021 – which values local initiatives and promotes government-sponsored devolution of decision-making to local government, business and community.

Acronyms

AAEE	Australian Association for Environmental Education
ARIES	Australian Research Institute in Education for Sustainability
DECCW	Department of Climate Change and Water
EEON	Education Alliance for a Sustainable Ontario
EfSD	Education for Sustainable Development
EPA	Environment Protection Authority
ESD	Ecologically Sustainable Development
LfS	Learning for Sustainability
NGO	Non-Government Organisation
NSW	New South Wales
NRTEE	National Roundtable on the Environment and the Economy (Canadian)
NUN	North German Alliance in Support of the UNDES
OEH	Office of Environment and Heritage
OECD	Organisation for Economic Cooperation and Development
RNE	German Council for Sustainable Development
SWOT	Strengths Weaknesses Opportunities Threats
TAFE	Technical and Further Education
UK	United Kingdom
UN	United Nations
UNDES	United Nations Decade for Education for Sustainable Development
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational Scientific and Cultural Organisation
VET	Vocational Education and Training

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