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Sustainability Education and Engagement in NSW: 2011 Online Survey Report

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EXECUTIVE SUMMARY

Research context

The conclusion of the designated term of *Learning for Sustainability NSW Environmental Education Plan 2007–10* presented an opportunity to review the current status and emerging trends in sustainability education and engagement in New South Wales (NSW) and to consider the governance framework that would most effectively support sustainability education and engagement in NSW in the coming decade.

This research project contributes to this process of review. Its overall aim was to identify current trends in, and views of, sustainability education and engagement across all relevant sectors in NSW (particularly formal education, business and industry, government and community) and to assess these sectors' needs in relation to enhancing their work in these fields.

Methodology

A total of 358 people participated in the online survey. Participants were from the four key sectors, namely business and industry, formal education, government and community. They spanned a broad range of roles in the area of sustainability education and engagement across these sectors, including high-level sustainability strategists, middle-management sustainability officers and sustainability educators. The survey was administered via an online survey link, which was sent to members of various sustainability and education networks in NSW. They were asked to participate in the survey and to forward the email to others in their networks. The data was collected between 30 June and 31 July 2011. The questionnaire can be found in Appendix A.

Research findings

Sample profile

The sampling design and method for this survey provided a sample of organisations more likely to be highly engaged in sustainability education and engagement.

The majority of participants were from the local government (32%) and community (25%) sectors, with a further 18% from the formal education sector. Fifteen per cent were from the state government sector, and of these, half (50%) were employed in environment, land or water management agencies. Just over one in ten (11%) participants were from the business and industry sector.

The majority of participants (63%) came from a major city, as classified by ARIA Plus. A quarter (25%) were from inner regional areas, while 14% were from outer regional areas.

Close to half (43%) of participants were in mid-level roles such as program officer/coordinator, project manager, facilitator or educator. Almost a quarter (24%) were in senior management or executive roles.



In the business and industry sector half were in senior management positions, significantly more than in other sectors.

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

The community is the primary audience for sustainability initiatives, with 61% of participants citing it as a main audience, while almost a third (32%) cited staff in their own organisation as a key audience.

Profiles of the sectors and their participants' views by can be found in Section 3.

Sustainability in NSW organisations

Survey participants were asked a range of questions about the approach their organisation takes to sustainability, including their conceptualisation of sustainability, its role in decisions about internal and external operations, key drivers for sustainability in the organisation and tools for delivering sustainability initiatives.

A substantial majority of participants (93%) indicated that their organisation conceptualised sustainability in a way that included environmental sustainability. Those in the local government sector and those who spent more than 80% of their work time on sustainability initiatives were more likely to say it incorporated quadruple bottom line (i.e. environmental, social, economic and governance/leadership aspects).

Sustainability in internal operations was seen as very important by 52% of participants, compared to 61% in external activities. Those in local government were more likely to see sustainability as less important to their organisation than those in other organisations.

The key driver for implementation of sustainability initiatives was that sustainability is part of the organisation's core values (26% of first rankings, 48% across the top three), followed by concern about the natural environment, ecosystems and biodiversity (15% of first rankings and 37% across the top three). The main tool to deliver sustainability initiatives was education/training, mentioned by 65%. Infrastructure provision was mentioned by 59%, and motivation, engagement and awareness activities by 54%.

Engagement in sustainability education in NSW

Over two-thirds (69%) of participants stated that their organisation conducts education or engagement activities both internally and externally. Only 2% did not conduct any education activity.

The terms *education* and *engagement* are used by the majority of organisations to refer to any education/engagement activities, both were chosen by 65% overall. *Education* was preferred by 78% in the education sector and 71% in local government, whereas *engagement* was preferred by those the state government (69%), business and industry (56%) and community (76%) sectors.

Participants were asked about sustainability education and engagement activities in their organisation in regard to internal operations and externally delivered products or services. Areas covered in these questions included the extent to which their organisation carried out engagement activities, the extent to which engagement addressed sustainability issues, goals of the initiatives and media used.

Over two-thirds (69%) of participants stated that their education or engagement activities were for both internal and external audiences. Those who spent more than 80% of their work time on sustainability initiatives were more likely to say they carry out both internal and external education/engagement. More than half stated that their education and engagement activities addressed sustainability (50% internally and 64% externally) either extensively or significantly.

A high proportion of participants in each sector reported that both engagement and education were used to describe education/engagement activities in their sector, and 63% of the sample used both terms. In describing sustainability education specifically, no term received wide support but 'education for sustainability' (EfS) received the most support, with 36% nominating it in their top three preferences.

Participants stated that 28% of their sustainability education work is focused on the goal of building knowledge, awareness and understanding, with 20% focused on influencing people's behaviour. Over a third (36%) of participants indicated that they take all six nominated goals, from increasing awareness through to developing capacity for critical thinking, into account when addressing behaviour change in their initiatives. However, the extent to which participants include the key areas of problem-solving, critical thinking and values clarification is generally low.

The most mentioned driver for choosing to use education in sustainability programs was an understanding of the contribution education can make to sustainability (mentioned by 44%). The most mentioned barrier (by 51%) to using education in sustainability programs was external funding and resource issues. Talks and presentations (74%), print information (68%) and practical workshops (61%) were the most common methods of delivery for sustainability initiatives. The most common consideration for choosing the method of delivery was the target audience, mentioned by 51%, followed by budget (24%) and objectives of the project (18%).

Topic areas

Energy, water and waste resource efficiency were the top three issues, with energy efficiency particularly important for those educating internal audiences (92%).

Increased knowledge was seen by 33% of participants as one of the most important changes influenced by their organisation's sustainability education, while only 20% mentioned changes in behaviour.

Only a quarter (26%) of participants indicated use of formal evaluation and monitoring of sustainability outcomes in their organisation. A quarter also indicated that anecdotal or informal feedback was used.

Evaluating sustainability education in NSW

Views were sought on both sustainability education in NSW generally, and the Learning for Sustainability Plan. As 59 respondents who were part of the main sample did not complete this section of the survey, the total sample was reduced to 299 for this section.

Almost all (99%) agreed with the statement that *education/engagement is an essential tool for developing sustainable communities*. In total, 81% agreed that *sustainability education/ engagement is becoming more important in their role/organisation*. Six out of ten (61%) agreed that *sustainability education/engagement suffers from a lack of strategic direction*.

There were relatively high levels of awareness of the 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 plan.

The majority (between 65% and 79%) of participants believed that there was moderate or minor activity taking place towards each of the goals of the plan. The goal where the most activity is perceived to be happening is *integrating education with other tools*. Least overall activity was seen to be occurring in goals relating to engagement more widely in industry and the community: *enhanced cross-sectoral coordination* and *improved access for all people in NSW to high quality education programs*.

Improving sustainability education in NSW

Lastly, participants were asked about their perceptions around future directions and improvements to sustainability education in NSW.

For each of the goals of the plan more than 74% of participants indicated they perceive it to be *very important*. *Active and informed participation by NSW people in creating a sustainable future* had the most support, with 89% rating it as *very important*.

Several future 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, and there was less support for a detailed plan describing objectives and outlining outcomes for each sector.

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 18%, and government support through regulation or legislation by 15%.

Implications for sustainability education in NSW

These are drawn from the conclusions of the research, and address areas that may be of strategic importance in shaping future decisions about sustainability education and engagement in NSW.

Engagement with sustainability and integration of education

Values associated with environmental concern underlie considerable sustainability activity, so that enabling organisations to understand their role in environmental protection and long-term sustainability is a key area for development. While there is recognition through this study that sustainability is important in participants' organisations, it (naturally) is more prevalent from those who are more involved in sustainability work. Initiatives to boost understanding of the value of sustainability in organisations more broadly is a key underpinning to advancing sustainability education, engagement and outcomes.

Demand for sustainability initiatives is likely to increase as corporate social responsibility and triple and quadruple bottom line paradigms become more widely accepted in the commercial and public sectors. There are opportunities to increase sustainability activities by encouraging uptake of these paradigms.

Demonstrating the value of education and engagement to deliver sustainability outcomes is important to secure management's recognition of and support for implementation of sustainability education/engagement programs. While sustainability tools vary substantially by sector, education tools are the most widely and consistently used. Building capacity in education and engagement (by developing appropriate skills and resources) within each sector according to the needs of the sector is a key strategic route to developing and enhancing sustainability initiatives.

The development of formal frameworks for integration of education with other tools may also continue to increase the extent to which education is used in sustainability initiatives.

While almost all organisations report a culture of education to some degree, there is room for many to move towards more extensive incorporation of sustainability education into their operations. The level of recognition of the value sustainability education brings is clearly a key driver for education in many organisations and a key barrier in others, acting as an enabler when the value is recognised, but as a barrier when it is not. As such, there is potential for large improvements in the penetration of sustainability education if its value is recognised more widely. Recognition should be encouraged through consistent, strong messaging around the value education can add in conjunction with other activities, perhaps via the provision of case studies and mentoring.

Participants and their involvement in sustainability education

However, once recognised, capacity building and development of education/engagement skills will be critical to effective program design and delivery. The variation in levels of experience and degree of engagement across sectors indicates that there is a need for a tailored approach to communicating with individuals within organisations and building their capacity. Given the variation in sector profiles and needs illustrated by the sector profiles, a clearly articulated support and capacity building framework for each sector, building knowledge and skills based on the context and needs of those in that sector will be of most value.

Organisations should be encouraged to build internal skills in sustainability education where possible, as this appears to be a key driver for around a third of organisations at present. Local government appears to be particularly driven by the existence of internal staff dedicated to education, and while it may be harder for other sectors to develop similar banks of skills, this should be encouraged. Building internal skills will also help to overcome several key barriers to undertaking sustainability education with organisations, namely: lack of leadership; lack of priority (both for sustainability and education); and lack of understanding of the benefits of education.

Involving and engaging the community sector will provide a particular challenge, should EfS in NSW retain the goals of *enhanced cross-sectoral coordination* and *increased active and informed participation from NSW people*. The community sector displays positive attitudes towards the importance of sustainability and 80% of those within the sector consider the community to be a major audience for them, so that this sector is well placed to involve 'NSW people'.

Communication

Like identified needs, language used is sector specific for both education and engagement activities generally, and for sustainability education specifically. In the general sense, 'education' and 'engagement' are both used widely. As they are highly used and recognised across all sectors, communications should continue to use both terms. This is particularly important in cases where communications are intended to reach audiences in multiple sectors. However, within the formal education sector, 'education' is the preferred term and should be used for communications intended solely for that sector where engagement is not as relevant.

There was less consensus about the description of sustainability education, with no single term supported by more than a quarter of the sample as a first preference or by more than a third in nominating three preferences. Of the terms tested, 'education for sustainability' is most preferred as a banner under which to promote any future overarching activities.

Engagement and social change

Achieving social or behavioural change requires a complex set of factors to be considered and addressed in education or engagement programs. The research indicates that there is a heavy reliance on knowledge building activities to achieve this in current sustainability education practice in NSW. It is important to understand whether the focus on knowledge-building and awareness activities is a result of a planned developmental strategy towards behaviour change, or of a pragmatic view that these activities are the easiest to deliver, or of a belief that provision of information is the best way to achieve social change and changes in behaviour.

Moving towards sustainability will depend on moving audience members further along the spectrum from knowledge and awareness towards specific behaviour change through specific skills development and direct influences on behaviour. Education and engagement activities that cover specific skills, or the motivators and barriers involved in behaviours, are more likely to have practical outcomes in the community and inclusion of these should be encouraged across all education and engagement activities.

Discussing and reflecting on values, and the development of capacity for problem-solving and critical thinking, in particular, enable future growth beyond simply encouraging behaviour change through the development of novel ideas and creative solutions to existing problems. They are given low weight by participants in this survey, which means that although they are nominally accepted as goals by at least half of participants, activities are not often planned to develop them, except in the education sector. These goals, along with implementation strategies, need to be more clearly built into a much greater range of programs than at present and educators need to be equipped with tools to do this.

Encouraging participation and networking also requires greater focus, with almost no attention by organisations at present. Like the development of capacity for critical thinking, encouraging networking, particularly cross-sectoral and cross-functional networking, will support the development of new ideas and creative solutions to existing problems. It also has potential to attract more people and consequent effort into sustainability education and engagement.

Driving and supporting extended activity

As identified above, while sustainability tools vary substantially by sector, education tools are the most widely and consistently used. Building capacity in education and engagement (building appropriate skills and resources) within each sector according to the needs of the sector is a key strategic route to developing and enhancing sustainability initiatives.

Provision of external funding and other resources to encourage sustainability education is a key driver for organisations to undertake education activities when present, it is also a key barrier when absent. Promoting such support, where available, is therefore important in encouraging a large proportion of organisations to undertake sustainability education, and clear communication of support to all sectors should be undertaken. This is particularly true of the community sector.

In local government, the development of management directives, policies and plans around sustainability education could drive more (and more planned) activity. This could be supported by case studies sharing the State Government's success in policy and planning in driving sustainability education programs.

While face-to-face methods of education delivery are popular, and no doubt effective, the incorporation of other, less used media is likely to improve access to a wider range of audiences. Development and

promulgation of a framework for assessing the most appropriate delivery methods may also improve the reach of some sustainability initiatives.

It is likely that organisations and sectors are choosing to cover issues of most relevance to their business and audiences, whether on the basis of environmental priority or resource use and savings, and that priorities set on a state-wide basis are less meaningful.

Strategic development of sustainability education in NSW

There is strong support for the goals of the Learning for Sustainability plan among those closely involved in sustainability education (over time and through networks), and overall understanding of and support for the general concepts described in the plan was high.

However, successful strategic planning and implementation needs to be based on extensive and frequent communication of goals and strategies, and demonstration of the progress made towards the goals.

One potential approach for sustainability education is publication of an overarching set of goals at longer intervals, with more frequent (e.g. annual) engagement around specific strategies in order to keep them top-of-mind. Progress from the past year could be included with a revised set of goals. This would ensure both ongoing engagement and that those new to the industry have a better chance of exposure to the strategy.

Future strategic support for sustainability education in NSW should focus not only on ensuring that quality tools are developed and integrated, but also on ensuring that initiatives reach their intended audiences. Cross-sectoral coordination of sustainability initiatives is a key area for development, as is increasing access to sustainability education for all people in NSW.

Efforts should also be made to ensure that the community sector is fully engaged in the delivery of sustainability initiatives.

RESEARCH BACKGROUND

1.1 Context

Working towards a sustainable future is a priority for the NSW Government. To achieve a low carbon economy and sustainable communities, it needs to support communities to take action at a local level and to adopt lifestyle practices that are sustainable.

Education programs are part of a suite of sustainability interventions and strategies. Education supports the implementation of policies, legislation and incentive schemes related to the protection of the environment and to the sustainable management of water, air, soil and other natural resources. The challenge in NSW is to identify how education and learning approaches can best contribute to and support moving sustainability into the mainstream. Crucial to this is an effective model that establishes and supports a framework for learning for sustainability (LFS) across the NSW community.

The NSW Government has previously developed two successive environmental education plans, titled *Learning for Sustainability*, covering the periods 2002–05 and 2007–10. These environmental education plans have been used as a tool to establish directions and priorities by leaders and practitioners from state and local governments, formal education, non-government organisations, regional and local community and business and industry.

The expiry of the term of the Learning for Sustainability 2007–10 plan presents an opportunity to review the current status and emerging trends in sustainability education and engagement in NSW and to consider what sort of governance framework would most effectively support sustainability education and engagement in NSW in the coming decade. Several pieces of research are being conducted to underpin this review process. For this project the NSW Office of Environment and Heritage (OEH) commissioned an online survey of those involved in sustainability education and engagement across all relevant sectors in NSW, particularly formal education, government, community and business.

1.2 Research objectives

The overall objective of the research was to identify current and emerging trends and needs in sustainability education and engagement to inform consideration of possible new directions for a future governance model.

Specifically, the research aimed to identify:

- current practices and approaches in LFS across the four key sectors: formal education, government, community and business

- the language and terminology used to describe LfS across the four key sectors
- achievements, opportunities and challenges experienced by these four key sectors in developing and implementing LfS
- current and proposed ways of integrating learning into sustainability initiatives.

1.3 Research design

Quantitative methodology

This research consisted of a quantitative survey conducted online in order to reach specific groups of potential participants.

An invitation to participate, with an online questionnaire link, was sent to 'key contacts' in various sustainability and education networks in NSW. This primary approach email outlined the purpose and importance of the research. Recipients were asked to participate in the survey themselves and to forward the email to others in their networks who were working in similar areas. A follow-up email was sent to these key contacts a week before the end of the survey period asking them to remind those in their networks to complete the survey.

The data was collected from 30 June to 31 July 2011. The questionnaire can be found in Appendix A.

Sample structure and source

In total, 299 people fully completed the online questionnaire. Removing outliers, the average length of time taken to complete the questionnaire was 33 minutes. In the interest of increasing the sample base, 59 participants who partially completed the questionnaire (i.e., up to question D11) were included in the final data set, providing a total sample of n=358. Table 1 shows the number of participants per questionnaire section.

Table 1: Number of respondents per section

Section	Number of respondents
Question A1 to Question D11	358
Question D12	301
Section E	299
Section F	299

The sample comprised participants who worked in positions that involved sustainability in the four key sectors, including senior managers, middle management, sustainability officers and sustainability educators.

Analysis

Where appropriate, sample profile variables have been used throughout this report to identify differences in attitudes and behaviours between groups of participants. The structure of each of the sample profile variables is discussed in section 4.1.

The profile variables used for this analysis were:

- Industry sector
- Type of State Government organisation (where applicable)

- ARIA Plus classification of remoteness (see section 2.2 for explanation)
- Role in organisation
- Time in role spent on sustainability
- Sustainability education or engagement audience
- Perceptions of most important aspect of sustainability
- Education/sustainability sector
- Time working in the industry
- Age
- Gender
- Membership of sustainability education or engagement organisations/networks.

Significance testing

Significance testing using sample profile variables was undertaken by testing the proportion of respondents from a particular group who gave a particular response against the proportion of all other respondents who gave that same response. Where there are two sub-groups (e.g. for gender) we can say that the sub-groups are significantly different from each other. Where there are more than two sub-groups (e.g. for sector, ARIA Plus classification or time working in industry), a group reported as different is significantly different from the average for all other groups for that question. The testing was conducted using an adjusted standardised residual. Significant results have only been reported where a significant difference was first found in the overall distribution using chi-square test of best fit (for categorical variables), Kruskal-Wallis H test (for ordinal variables) or t-test (for continuous variables).

NOTE: In tables throughout this report, the label 'Total' indicates the proportion of participants who answered that specific question. Some 'Total' values shown in tables differ due to the different portions of the total sample asked specific questions. For example, all participants (n=358) provided details of their industry sector, whereas only 52 provided details of the type of state government organisation they work for (because this question was only asked of state government employees). This discrepancy means that 'Total' values differ depending on the responses provided by the group being tested.

Internal and external operations

Throughout this survey, participants were asked to answer questions regarding both internal operations and external activities. These were defined in the survey as follows:

“activities relating to **internal** operations (facilities, staff, resources, processes) and to **external** delivery of products, services or programs to clients, customers, students or community.”

Earlier survey

Prior to the development of the first Learning for Sustainability plan, research was undertaken which included a survey of the professional needs of environmental educators in government (state and local) and community sectors in June 2000. Appendix C provides details of that survey and some findings for questions similar to questions in this 2011 survey which are useful to consider along with the present survey.

RESEARCH FINDINGS

This section reports all findings from the Learning for Sustainability survey, following the general topic areas covered by the questionnaire, including:

- sample profile
- sustainability in NSW organisations (including perceived meaning and importance of sustainability, nature of initiatives and key audiences, drivers to undertake activities)
- sustainability education and engagement in NSW organisations (language used, main methods, goals, barriers, key focus areas/topics)
- assessing the current status of sustainability education in NSW (including overall direction and the Learning for Sustainability plans)
- supporting and improving sustainability education in NSW.

2.1 Sample profile

Introduction and summary

As the sampling method for this survey provided a sample of organisations more likely to be highly engaged in sustainability education rather than a random sample of organisations in NSW, the sample profile reflects a bias towards organisations in the government, community and education sectors.

A range of sample profile variables relating to the characteristics of both the individual participating in the research and their organisation were included in the questionnaire. Responses to other questions in the survey have been analysed against this range of sample profile variables throughout this report. However, this sometimes required grouping the profile variables into categories with sufficient numbers for meaningful analysis. Details are included in the following detailed sample description where relevant.

In summary:

- **Sector:** The majority of participants were from the local government (32%) and community (25%) sectors. Participants in state government were 15% of the sample and, of these, half (50%) were employed in environment, land or water management roles. Profiles of the sectors included in the research can be found in section 3.
- **Location:** The majority of participants (61%) came from a major city, a quarter (25%) were from inner regional areas and 14% were from outer regional areas, as classified by ARIA Plus.
- **Role in organisation:** Close to half (43%) were in mid-level roles such as program officer/coordinator, project manager, facilitator or educator. Almost a quarter (24%) were in senior

management or executive roles. However, in the business and industry sector, half of participants were in senior management positions, significantly more than in other sectors.

- **Time spent on sustainability:** Almost two-thirds (65%) of participants spent over 50% of their work time on sustainability-related activities. Those in local government were more likely than others to spend over 80% of their time on sustainability-related activities.
- **Primary audience:** The community is the primary audience for sustainability initiatives, with 59% of participants citing it as a main audience. Almost a third (32%) cited staff in their own organisation as their primary audience.
- The sample was split 61% female, 39% male.
- Three quarters (76%) of participants worked in sustainability education.

Sample composition in detail: organisation and role

Sector

Almost a third of all participants in the survey (32%) were from the local government sector, with a further 25% from the community sector (Figure 1). The formal education sector represented 18% of the sample, of which 3% were from private education and 15% from public education. The two education sectors (public and private) have been combined into a single education sector for analysis through this report.

State government participants (excluding those in formal education) represented 15% of the sample and 11% were from business and industry.

State government organisations: Of the 52 participants who identified themselves as being part of a state government organisation, half (50%) worked in environment/land and water management (Figure 2). Those who worked in tourism/sports and recreation/cultural activities constituted 15% of state government participants, while the remainder were spread in low numbers across a range of state government responsibilities. For further analysis, state government participants were grouped into two segments: those who worked in environment, land and water management; and all others.

Figure 1: Sector of participants

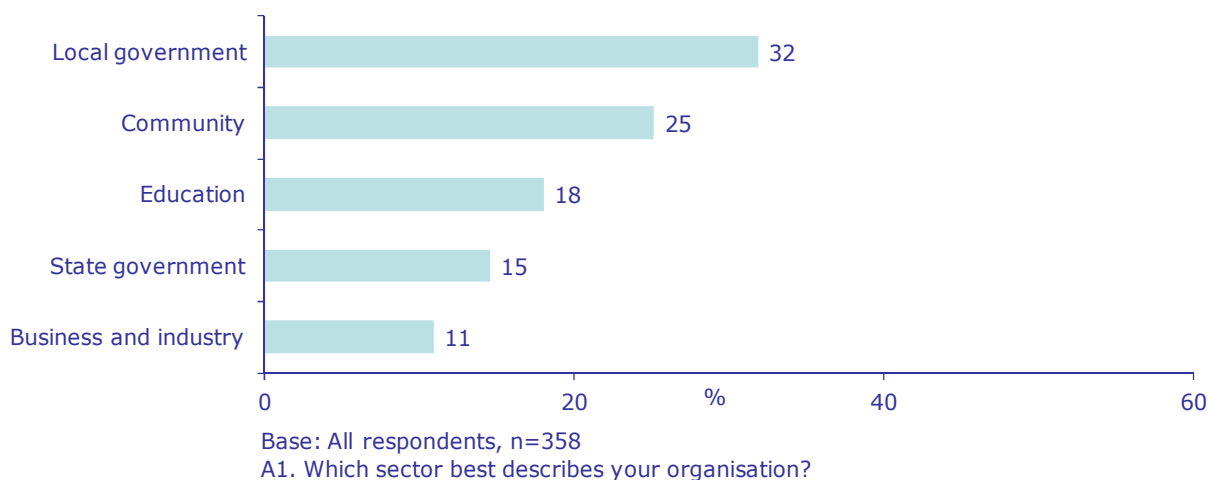
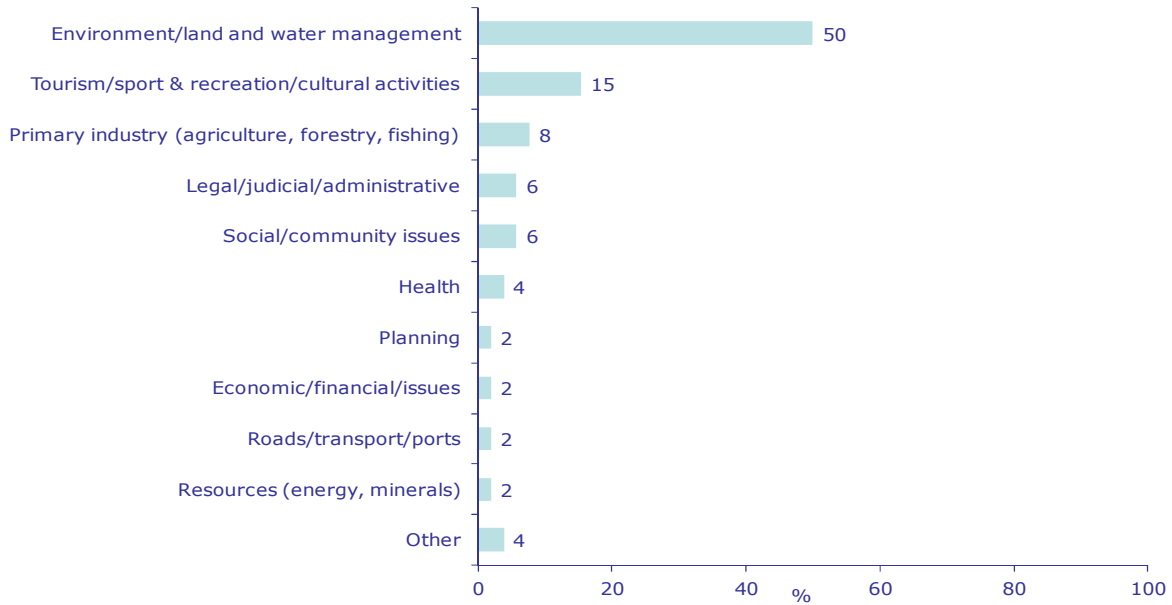


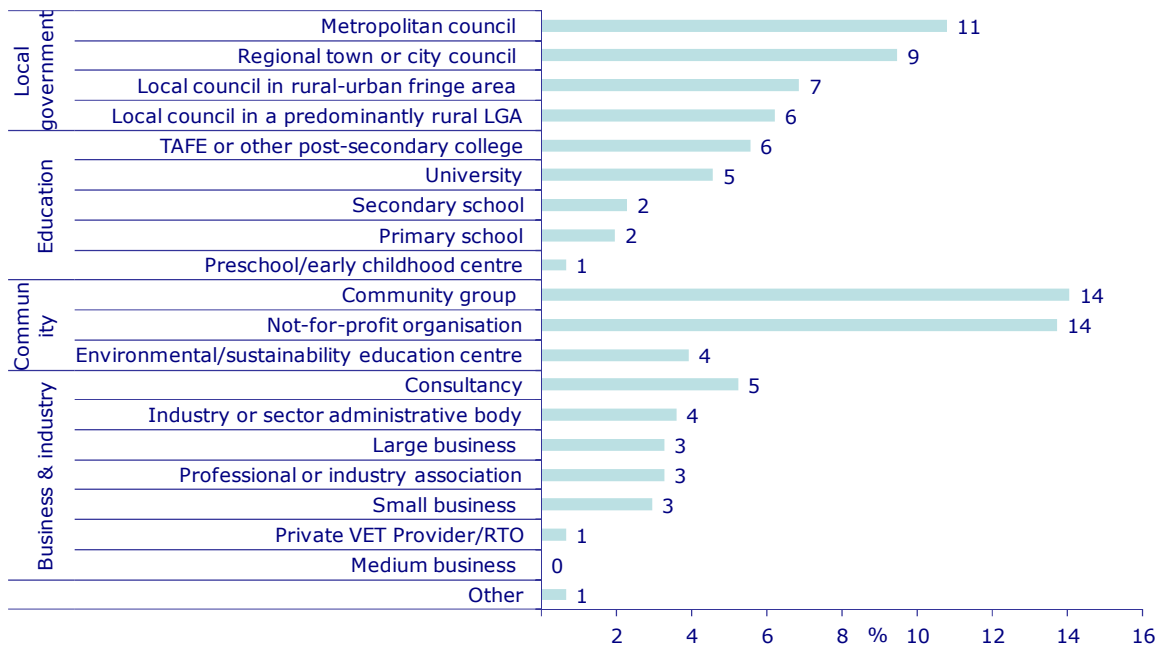
Figure 2: State government organisation



Base: Respondents that work in the State government sector, n=52
A2. Which sector best describes your organisation?

Non-state government sectors: Of the 306 participants who identified themselves as being part of organisations other than state government, 32% came from the community/non-government organisation (NGO) sector. Another third (33%) were from local government, with a good spread of local government areas (LGAs) across metro, regional and rural areas (Figure 3). The remainder of non-state government participants came from various education sectors, industry bodies and business. The breakdown in Figure 3 demonstrates the breadth of the sample origin but given the diversity, it was not used for analysis below the sector level.

Figure 3: Description of non-state government organisations



Base: Respondents that work in local government, business and industry, formal education (public), formal education (private) and community groups, n=306
A3. How would you best describe your organisation?

Location

Participants were asked to provide the postcode of their main workplace. Those who travel or move frequently for work were asked to provide the postcode of their organisation's base.

Postcodes were categorised according to the ARIA Plus system, which classifies each area according to its level of remoteness. ARIA Plus is primarily an index value between 0 and 15 calculated for 1 kilometre square grids across Australia.¹ The classifications are shown in Table 2.

Almost two thirds (61%) of participants were from organisations based in a major city. A further quarter (25%) worked in inner regional areas, and 14% from outer regional areas. Only 1% were from remote areas.

Table 2: ARIA Plus categorisation

Remoteness area class	ARIA Plus score range in the class
Major Cities of Australia	Average ARIA index value of 0 to 0.2
Inner Regional Australia	Average ARIA index value greater than 0.2 and less than or equal to 2.4
Outer Regional Australia	Average ARIA index value greater than 2.4 and less than or equal to 5.92
Remote Australia	Average ARIA index value greater than 5.92 and less than or equal to 10.53
Very Remote Australia	Average ARIA index value greater than 10.53

Role in the organisation

The survey explored the role of participants in their organisation (Figure 4). Just under half (43%) were in middle management roles such as officer, program coordinator, project manager, facilitator or educator. Senior managers or directors comprised 15% and another 9% identified themselves as senior executive/principal/councillor, making a total of 24% in senior decision-making roles.

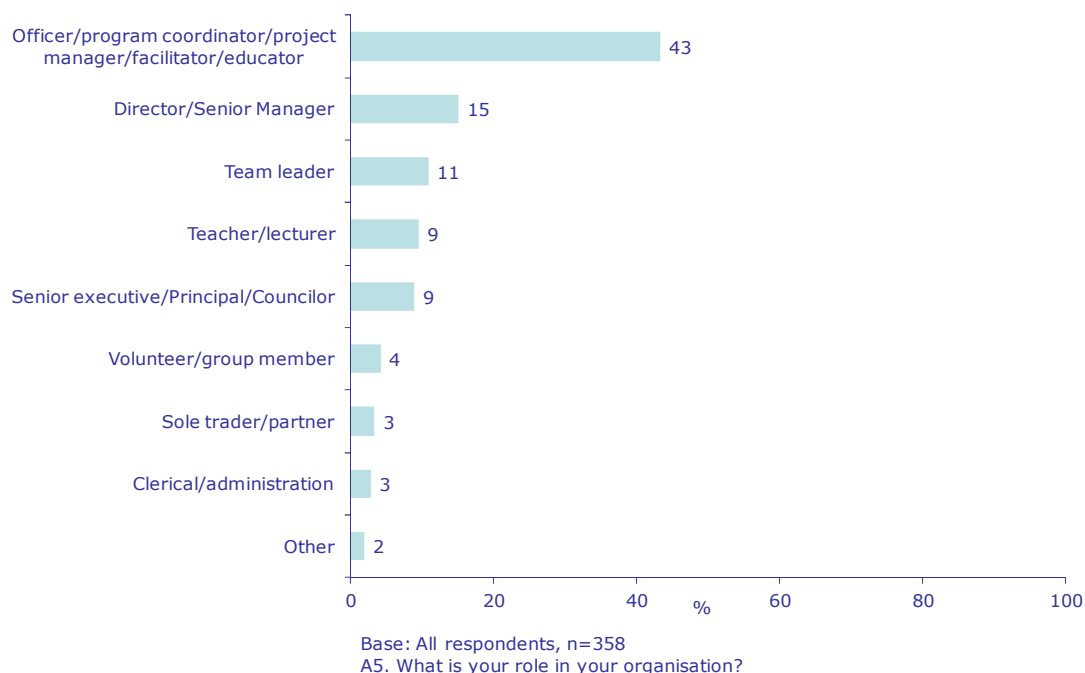
The following groups were used for further analysis:

- senior management: director/senior manager, and senior executive/principal/ councillor
- team leader
- teacher/lecturer
- officer/program coordinator (including also project manager/facilitator/educator)
- other: volunteer group member, sole trader/partner, clerical/administration, and other.

¹ This number represents the remoteness of a point based on the physical road distance to the nearest town or service centre in each of five population size classes. While ARIA provides a method to quantify remoteness, the index itself does not provide a geographical classification. The 1 kilometre grids must be grouped together in some way to form the areas or regions which are intrinsic to a geographical classification. The Australian Bureau of Statistics classification based on the average ARIA Plus score within each Census Collection District has been used here to categorise participants based on their postcode.

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Figure 4: Role in organisation



There were distinct differences in participants' organisational roles according to sectors (Table 3). Participants from business and industry were more likely to be in senior management roles (51%). Participants from local government were more likely to be in junior roles such as program officer or coordinator (76%) and less likely to be in senior management positions (11%). Those from the education sector were more likely to be teachers or lecturers (41%). Participants from community groups were more likely to identify as team leaders and both the community and business sector had more participants with a variety of 'other' roles.

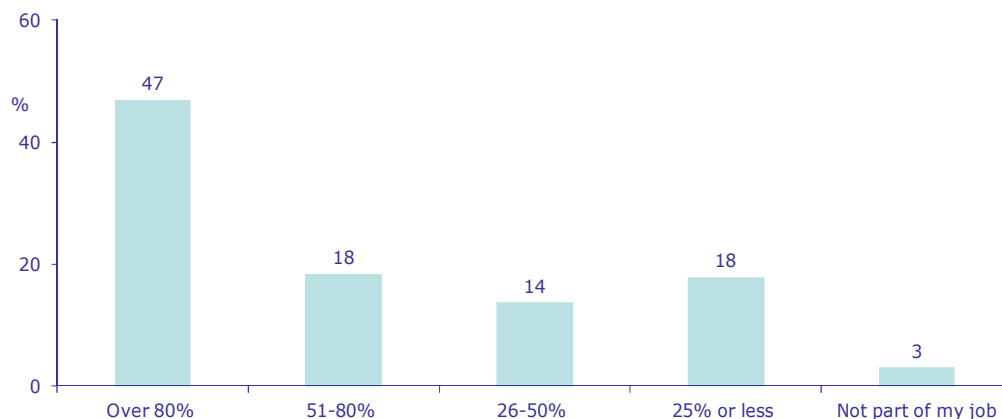
Table 3: Significant differences in role in organisation across sectors

	Senior management	Team leader	Teacher/Lecturer	Officer/program coordinator	Other
	%	%	%	%	%
Industry Sector (n=358)					
State government	25	12	4	50	10
Local government	11	11	1	76	2
Business and industry	51	8	3	13	26
Education	25	3	41	25	5
Community	28	18	4	23	27
TOTAL	24	11	9	43	12
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.					
Segment shaded LIGHT GREEN is significantly less likely.					

Time in role spent on sustainability

Almost half (47%) the participants stated that at least 80% of their work time was spent on activities related to sustainability (Figure 5). The remainder were relatively evenly split between 51–80% of their time (18%), 26–50% of their time (14%) and 25% or less (18%).

Figure 5: Work time spent on activities related to sustainability (%)



Base: All respondents, n=358

A6. How much of your work time is spent on activities related to sustainability?

This distribution indicates that the sampling method was successful in obtaining participants who were highly engaged in sustainability. Only 3% of participants indicated that sustainability was not part of their job, while for most (65%), more than 50% of their work time was spent on sustainability which indicates that many participants are likely to have been well acquainted with sustainability issues in NSW.

Participants from local government were significantly more likely than others to dedicate more than 80% of their work time to activities related to sustainability (Table 4).

Table 4: Significant differences in time spent in role spent on activities related to sustainability across sectors

	Over 80%	51-80%	26-50%	25% or less	Not part of my job
	%	%	%	%	%
Industry Sector (n=358)					
State government	37	29	6	27	2
Local government	62	11	16	11	0
Business and industry	44	26	10	18	3
Education	37	24	17	22	0
Community	42	14	14	19	10
TOTAL	47	18	14	18	3

Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.

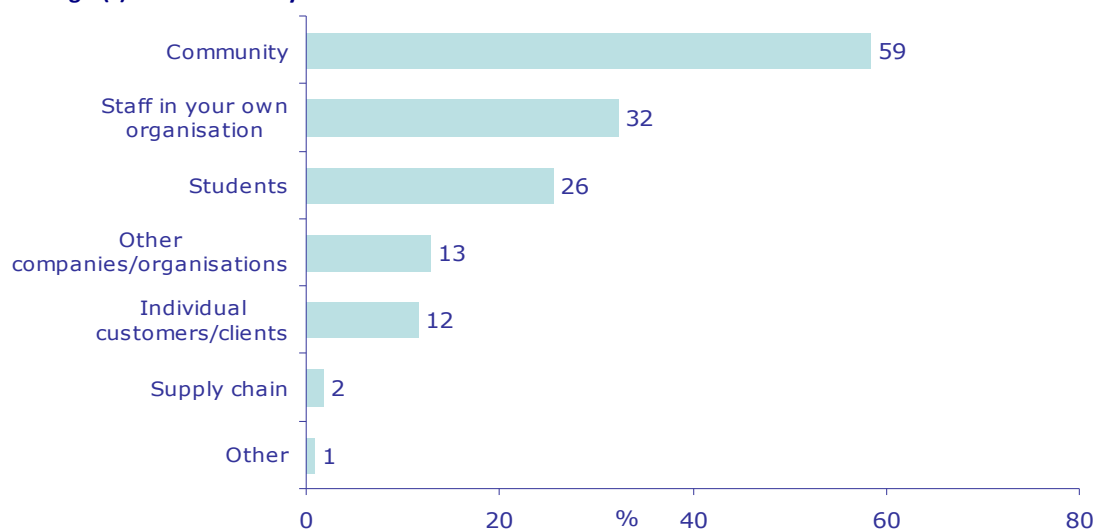
Primary audiences for sustainability initiatives

Those who indicated that they spend at least some of their work time on activities related to sustainability were asked to nominate their one or two most important audiences (Figure 6).

More than half (59%) indicated that the community was one of their primary audiences. Almost a third (32%) said staff in their own organisation were a primary audience, while just over a quarter (26%) stated that their primary audience was students. Thirteen per cent mentioned other companies/organisations, while 12% mentioned individual customers or clients. Only 2% stated that the supply chain was a primary target for their sustainability initiatives.

For significant differences in primary audiences across sectors, see Table 11, Section 4.2.

Figure 6: Target(s) of sustainability initiatives



Base: Respondents who spend some of their work time on sustainability, n=347
A7. Who are your sustainability initiatives mainly for?

For further analysis, responses were coded into three categories based on whether audiences for sustainability initiatives were internal, external or both:

- internal only, consisting of 'staff in your own organisation'
- external only, consisting of:
 - community
 - students
 - other companies/organisations
 - Individual customers/clients
 - Supply chain
 - Other
- both internal and external, consisting of responses where participants mentioned 'staff in your own organisation' and one or more external audiences.

Personal characteristics of participants

Gender

The majority of participants in the survey were female (61%, compared to 39% male). As Table 5 indicates, those in the business and industry sector were more likely to be male (71%), whereas those in local government were more likely to be female (72%). No significant differences regarding gender were found in other profile variables.

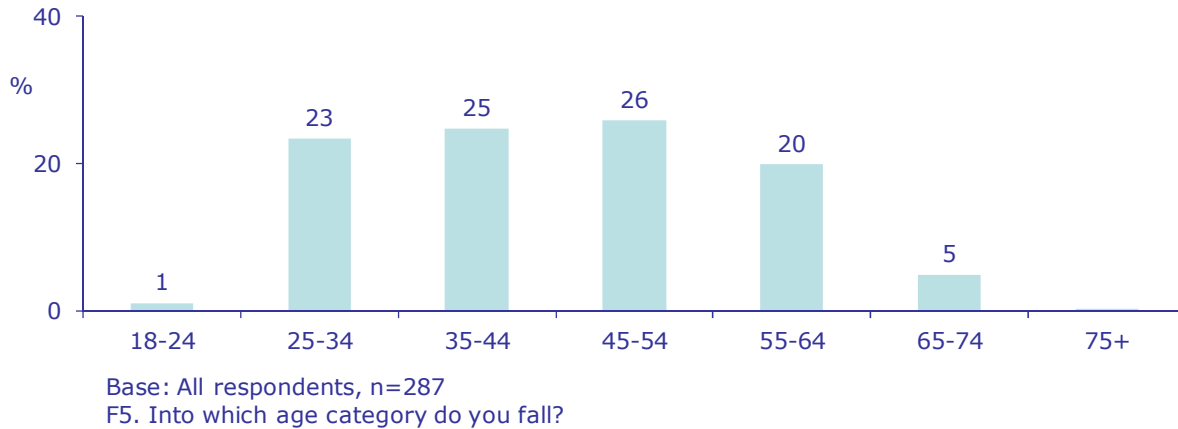
Table 5: Significant differences in gender across sectors

	Male	Female
	%	%
Industry Sector (n= 287)		
State government	36	64
Local government	28	72
Business and industry	71	29
Education	45	55
Community	37	63
TOTAL	39	61
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.		
Segment shaded LIGHT GREEN is significantly less likely.		

Age

As Figure 7 shows, the ages of participants were relatively evenly spread between 25 and 64. The highest proportion was in the 45–54 group (26%). Just over 5% of the sample was aged over 65, while less than 1% was 18–25.

Figure 7: Age



For further analysis, four groups were created from the original codes. These were:

- 18–34 – 24% of participants
- 35–44 – 25%
- 45–54 – 26%
- 55+ – 25%.

As Table 6 shows, participants in the local government sector were more likely to be in the 18–34 (35%) age group, and less likely to be over 55 (12%). In contrast, those from the community sector were more likely to be aged over 55 years (44%).

Table 6: Significant differences in age across sectors

	18-34	35-44	45-54	55+
	%	%	%	%
Industry Sector (n=287)				
State government	23	31	28	18
Local government	35	34	20	12
Business and industry	32	23	26	19
Education	14	16	37	33
Community	15	16	25	44
TOTAL	24	25	26	25
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.				
Segment shaded LIGHT GREEN is significantly less likely.				

Time in industry and key work area

Participants who said they spent more than 25% of their time on activities related to sustainability were asked how long they had worked in their field and to indicate whether they worked in: *sustainability initiatives in general*; *sustainability or environmental education*; or *education/ engagement generally*. For work areas the sample of 231 split into:

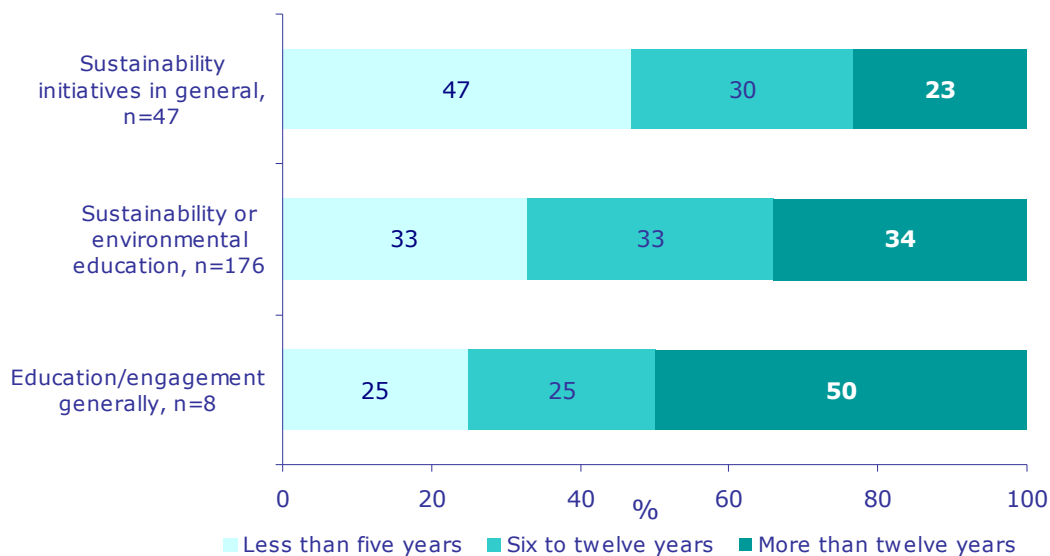
- sustainability initiatives in general (n=47, 20%)
- sustainability or environmental education (n=176, 76%)
- education/engagement generally (n=8, 3%)

This sample was split very evenly in terms of time spent in their industry:

- less than five years (n=82, 35%)
- 6 to 12 years (n=74, 32%)
- more than 12 years (n=75, 32%).

However, the time in industry pattern was different according to the main work area. While sustainability or environmental educators are relatively evenly dispersed across the three time bands (approximately a third of respondents in each group), almost half (47%) of those who worked in sustainability initiatives in general had worked in the sector for less than five years, perhaps indicating a relatively recent expansion of this field (Figure 8). Those working in education/engagement generally appeared to have a stronger preponderance of longer-term involvement but this sample was too small to draw many conclusions.

Figure 8: Time spent in industry and key work area (for those spending >25% of their time on sustainability activities)



Base: Respondents that spend over 25% of their time on sustainability, n=231
F3. You said earlier that sustainability initiatives or education/engagement formed at least a moderate part of your job. Approximately how long have you been working in this field?

For further analysis, responses were split into the two separate variables: one for the length of time participants had spent in their industry and the other for their sustainability/education sector allocation.

No significant differences were found across the sample profile in the length of time participants from each group had worked in their field.

Membership of networks or associations

Participants were asked whether they belonged to any associations or networks connected with sustainability or sustainability education.

Participants who mentioned the following associations or networks were allocated to the 'member of sustainability education organisation' group:

- Learning for Sustainability
- Australian Association for Environmental Education
- Victorian Association for Environmental Education
- Blue Mountains World Heritage Education Network

- Gould League of Australia
- Interpretation Australia
- Local Government Managers Australia (LGMA) Leadership for Sustainability Member Network
- Marine Education Society of Australasia
- NSW Early Childhood Environmental Education Network (ECEEN)
- Schools Environmental Network (SEEN)
- United States (US) Partnership of Education for Sustainable Development
- waste education Yahoo network/eco forum
- Water Education Network
- local sustainability educators networks
- local sustainable schools networks
- local environmental educators networks
- local waste educators networks.

Participants who identified organisations which do not focus specifically on sustainability education, such as the National Parks Association of NSW or the Institute of Australian Geographers, were allocated to the *member of other organisations* group. Those who did not mention specific networks or organisations were allocated to the *no memberships* group. These groups were used for analysis through the report.

A third of participants (33%) indicated they were not members of any associations or networks in the field. Sustainability education associations or networks (as above) were listed by 28% of participants, while 38% were members of other networks.

There were no significant differences between sectors in involvement in sustainability education organisations or networks (Table 7). However, those in the community sector were more likely than others to report being involved in other associations and networks and less likely to indicate no memberships.

Table 7: Significant differences in membership of organisations across sectors

	Member of sustainability education organisation	Member of other organisations	No memberships
	%	%	%
Industry Sector (n=287)			
State government	23	31	46
Local government	36	22	42
Business and industry	16	52	32
Education	37	37	27
Community	21	59	21
TOTAL	28	38	33
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.			
Segment shaded LIGHT GREEN is significantly less likely.			

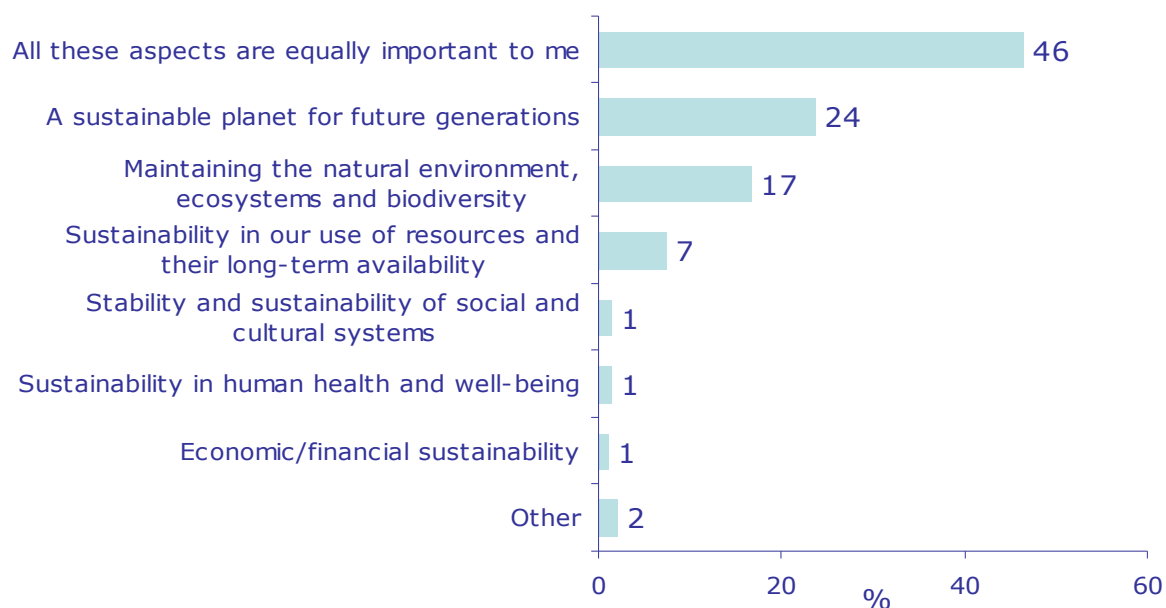
Those in the local government sector were less likely to report being members of 'other' organisations.

Most important aspect of sustainability

Participants were asked which aspects of sustainability were most important to them, in the sense that it motivates their work or personal life. Almost half (46%) said all aspects were equally important to them, while nearly a quarter (24%) stated that a sustainable planet for future generations was what motivated

them (Figure 9). A further 17% stated that maintaining the natural environment, ecosystems and biodiversity was most important to them, with sustainability in our use of resources attracting 7%.

Figure 9: Most important aspects of sustainability



Base: All respondents, n=358

F1. When thinking about sustainability, which aspect is the most important to you (in the sense that it motivates your work or personal life)?

No significant differences were found between sectors in their perceptions of the most important aspect of sustainability. However, in the state government sector, those from environment, land or water management organisations were more likely than others to indicate *maintaining the natural environment, ecosystems and biodiversity* was the most important aspect for them (44% compared to 5% of those in other types of state government organisations). Participants in outer regional areas (according to ARIA Plus categorisation) were significantly more likely than those in other areas to nominate the stability and sustainability of social and cultural systems.

For further analysis, responses were grouped to four categories:

- maintaining the natural environment, ecosystems and biodiversity
- sustainable planet for future generations
- all of these aspects are equally important to me
- other, consisting of:
 - sustainable use of resources and their long-term availability
 - stability and sustainability of social and cultural systems
 - sustainability in human health and wellbeing
 - economic/financial sustainability.

2.2 Sustainability in NSW organisations

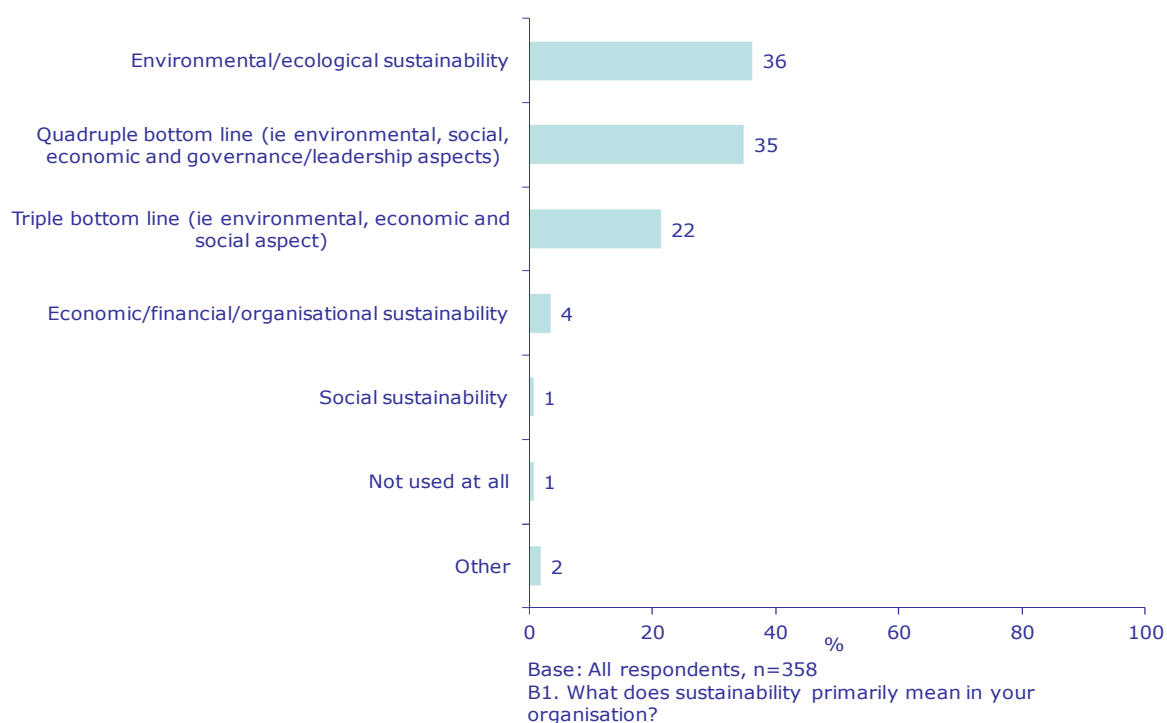
This section reports the findings that relate to the current sustainability practices of the survey participants' organisations. More specifically, it covers the perceived meaning and importance of sustainability in the organisation, the key audiences for their sustainability initiatives, the key reasons for undertaking sustainability initiatives and the main tools employed in those initiatives.

Section snapshot

- The vast majority of participants (93%) indicated that their organisation conceptualises sustainability in a way that includes environmental sustainability.
- Those in the local government sector and those who spent more than 80% of their work time on sustainability initiatives were more likely than others to indicate that they conceptualise sustainability in terms of the quadruple bottom line (i.e. environmental, social, economic and governance/leadership aspects).
- Over half the participants said sustainability was *very important* in their organisations both internally and externally, but it was seen as *very important* in delivery of organisations' products, programs or services by 61% of participants, compared to 52% who said it was very important in internal operations. Community organisations were more likely, and those in local government less likely, to say it is *very important* both internally and externally.
- While community is the primary audience across the total sample, those in environment/land/water state government, local government and community sectors were significantly more likely to nominate the community audience, business and industry to nominate customer/clients or their own staff, the education sector to nominate students and non-environment/land water state government agencies to nominate their own staff.
- The most frequently nominated reasons for undertaking sustainability initiatives were:
 - sustainability is part of the organisation's core values (26% of first mentions)
 - concern about the natural environment (15%)
 - concern about health, wellbeing or environmental quality (11%).
- Education/training was the tool most often used by organisations in their internal and external sustainability initiatives/programs, mentioned by 65% and 82% of participants respectively. Other frequently mentioned tools were infrastructure provision/installation (59% for internal initiatives and 40% for external initiatives) and motivation, engagement and awareness activities (54% for internal initiatives and 66% for external initiatives).

Meaning of 'sustainability'

Figure 10: Meaning of 'sustainability' in organisations



Survey participants were asked to identify the primary meaning of 'sustainability' in their organisation. Most participants (93%) indicated that their organisation conceptualises sustainability in a way that includes environmental sustainability (Figure 10).

A little more than a third (36%) of participants stated that, in their organisation, sustainability meant *environmental/ecological sustainability* alone. Slightly fewer (35%) stated that sustainability meant the *quadruple bottom line*, while just under a quarter (22%) mentioned the *triple bottom line*. One per cent mentioned *social sustainability*, while 2% mentioned a different definition. Only 1% stated that the term 'sustainability' is not used at all.

Table 8 shows significant differences across the sample profile in the meaning of 'sustainability'. Local government participants were significantly less likely to conceptualise sustainability in terms of simple *environmental/ecological sustainability* (22%, compared to 36% of the whole sample), and more likely to conceptualise it as the *quadruple bottom line* (50%, compared to 35% of the whole sample). In contrast, only 17% of state government participants said their organisation conceptualises sustainability in terms the *quadruple bottom line*, significantly lower than for other sectors.

Those who reported that sustainability made up more than 80% of their job were more likely to indicate their organisation conceptualises sustainability as the *quadruple bottom line* (43% compared to 35%). Participants for whom sustainability was not part of their job were more likely to conceptualise sustainability in terms of *social sustainability* (9%) or state that sustainability is not a term used in their organisation or industry (also 9%).

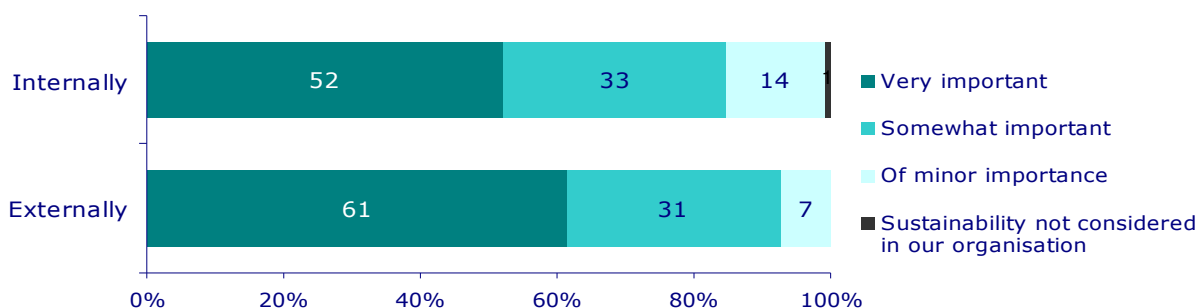
Table 8: Significant differences across the sample profile regarding the meaning of 'sustainability'

	Environment al/ecological sustainability	Economic/ financial/ organisational sustainability	Social sustainability	Triple bottom line	Quadruple bottom line	Not used at all	Other
	%	%	%	%	%	%	%
Industry sector (n=358)							
State government	50	6	0	23	17	2	2
Local government	22	4	0	20	50	0	4
Business and industry	31	3	3	26	36	3	0
Education	41	6	0	24	29	0	0
Community	46	0	2	19	30	1	2
TOTAL	36	4	1	22	35	1	2
Time in role spent on sustainability (n=358)							
Over 80%	29	3	1	22	43	0	2
51-80%	42	3	2	20	30	0	3
26-50%	45	4	0	22	27	2	0
25% or less	39	6	0	22	30	2	2
Not part of my job	55	0	9	18	9	9	0
TOTAL	36	4	1	22	35	1	2
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.							
Segment shaded LIGHT GREEN is significantly less likely.							

Importance of sustainability

Participants were asked to indicate how important sustainability is in their organisation, both in terms of internal operations and in external operations such as products, programs and/or services (Figure 11).

Figure 11: Importance of sustainability in participants' organisations



Base: All respondents, n=257

B2. How important is sustainability in your organisation?

Over half considered sustainability to be *very important* in their organisation, both internally (52%) and externally (61%). Approximately one third (33% internally and 31% externally) indicated that sustainability was *somewhat important*. A smaller proportion (14% internally and 7% externally) stated that sustainability was *of minor importance* in their organisation. Only 1% stated that sustainability was not considered at all in their organisation's internal operations, while fewer than 1% said it was not considered externally.

Table 9 shows significant differences across the sample profile with regard to the importance of sustainability to internal operations. Those in the community sector (79%) were significantly more likely to indicate that sustainability is *very important* to their internal operations, reflected also in the higher levels of this response for the 55+ age group (69%) and those who are members of 'other' associations/networks (64%), both of which are associated with the community sector. Local government participants were significantly less likely to indicate that sustainability is *very important* to their internal operations (19%).

Local government was significantly more likely to indicate that sustainability is either *somewhat important* (54%) or *of minor importance* (27%) to their internal operations. State government participants were also significantly more likely to indicate sustainability is *somewhat important* (50%) to their internal operations.

Significantly more senior managers (67%) indicated that sustainability is *very important* to their internal operations. Conversely, the less senior roles of officers/program coordinators were significantly less likely to indicate that sustainability is *very important* to their internal operations (32%). Program officers/coordinators were more likely to say it is *somewhat important* or *of minor importance*.

Table 9: Significant differences in the importance of sustainability to internal operations across the sample profile

	Very important	Somewhat important	Of minor importance	Sustainability is not a consideration in our organisation
	%	%	%	%
Industry sector (n=259)				
State government	42	50	8	0
Local government	19	54	27	0
Business and industry	70	17	13	0
Education	64	21	13	3
Community	79	14	6	1
TOTAL	52	33	14	1
Role in organisation (n=257)				
Senior management	67	27	6	0
Team leader	56	36	8	0
Teacher/lecturer	59	18	18	5
Officer/program coordinator	32	44	23	1
Other	81	13	6	0
TOTAL	52	33	14	1
Main audiences (n=258)				
Internal audiences	37	53	11	0
External audience	58	27	14	1
Both internal and external audiences	39	46	16	0
TOTAL	52	33	14	1
Age (n=257)				
18-34	41	41	16	2
35-44	35	43	22	0
45-54	61	29	9	1
55+	69	19	12	0
TOTAL	52	33	14	1
Membership of networks (n=257)				
Member of sustainability education organisation	45	32	23	0
Member of other organisations	64	26	9	1
No memberships	44	41	14	1
TOTAL	52	33	14	1
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.				
Segment shaded LIGHT GREEN is significantly less likely.				

Table 10 shows significant differences across the sample profile with regard to the importance of sustainability to external operations. They include delivery of products, services or programs to clients, customers, students or community.

Those in the local government sector and officers/program coordinators were both less likely than the rest of the sample to indicate that sustainability is *very important* to external operations (39% and 49% respectively). Those who spend only a little (25% or less) of their work time on sustainability were also significantly less likely to say sustainability is *very important* to external operations (39%).

Similar to the results regarding internal operations, the community sector was significantly more likely (85%) to indicate that sustainability is *very important* to external operations.

Those who identified their main audience for sustainability programs as being external were significantly more likely to indicate that sustainability was *very important* both in internal operations and externally.

Table 10: Significant differences in the importance of sustainability externally across the sample profile

	Very important	Somewhat important	Of minor importance	Sustainability is not a consideration in our organisation
	%	%	%	%
Industry sector (n=259)				
State government	65	32	3	0
Local government	39	50	11	0
Business and industry	70	17	13	0
Education	52	39	9	0
Community	85	13	3	0
TOTAL	61	31	7	0
Role in organisation (n=259)				
Senior management	72	24	4	0
Team leader	68	28	4	0
Teacher/lecturer	57	26	17	0
Officer/program coordinator	49	43	8	0
Other	81	13	6	0
TOTAL	61	31	7	0
Time in role spent on sustainability (n=259)				
Over 80%	64	29	7	0
51-80%	72	24	4	0
26-50%	65	30	5	0
25% or less	39	50	11	0
Not part of my job	57	14	29	0
TOTAL	61	31	7	0
Main audiences (n=252)				
Internal audiences	37	47	16	0
External audience	69	26	6	0
Both internal and external audiences	47	45	7	0
TOTAL	62	32	7	0
Time in industry (n=208)				
Less than five years	58	32	9	0
Six to twelve years	59	35	6	0
More than twelve years	82	17	1	0
TOTAL	66	28	6	0
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.				
Segment shaded LIGHT GREEN is significantly less likely.				

Key audiences

As shown (Figure 6) and discussed in Section 4.1, over half the participants (59%) who spend some of their work time on sustainability indicated that one of their primary audiences was the *community*. Almost a third (32%) stated that *staff* in their own organisation were a primary audience, while just over a quarter (26%) stated that their primary audience was *students*. *Other companies or organisations* was mentioned by 13%, with a further 12% mentioning *individual customers or clients*. Only 2% stated that the *supply chain* was a primary target for their sustainability initiatives.

Significant differences across the sample profile with regard to main audiences for sustainability initiatives are shown in Table 11.

Table 11: Main audiences: significant differences across the sample profile

	Staff in your own organisation	Individual customers/clients	Community	Students	Supply chain	Other companies/organisations	Other
	%	%	%	%	%	%	%
Industry sector (n=347)							
State government	31	10	51	25	4	16	2
Local government	40	6	75	9	1	11	1
Business and industry	26	53	26	5	5	29	0
Education	46	5	24	71	0	5	0
Community	14	6	81	23	1	14	1
TOTAL	32	12	59	26	2	13	1
Government organisation (n=51)							
Environment, land or water managers	15	12	73	31	4	19	0
Other	48	8	28	20	4	12	4
TOTAL	31	10	51	25	4	16	2
Role in organisation (n=347)							
Senior management	29	25	49	18	5	16	0
Team leader	33	3	64	23	0	10	0
Teacher/lecturer	27	6	24	79	0	0	0
Officer/program coordinator	39	6	66	21	1	14	1
Other	14	17	72	17	3	17	3
TOTAL	32	12	59	26	2	13	1
Education/sustainability sector (n=231)							
Sustainability initiatives in general	38	15	55	9	4	6	0
Sustainability or environmental education	29	11	64	29	0	16	0
Education/engagement generally	13	38	50	25	0	25	0
TOTAL	30	13	61	25	1	14	0
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.							
Segment shaded LIGHT GREEN is significantly less likely.							

The audiences for each sector varied considerably. Participants in the local government sector (75%) and the community organisation sector (81%) were significantly more likely than others to nominate the *community* as a major audience for their sustainability initiatives. Participants in the business and industry sector were more likely to nominate *customers or clients* (53%), and *other companies or organisations* (29%).

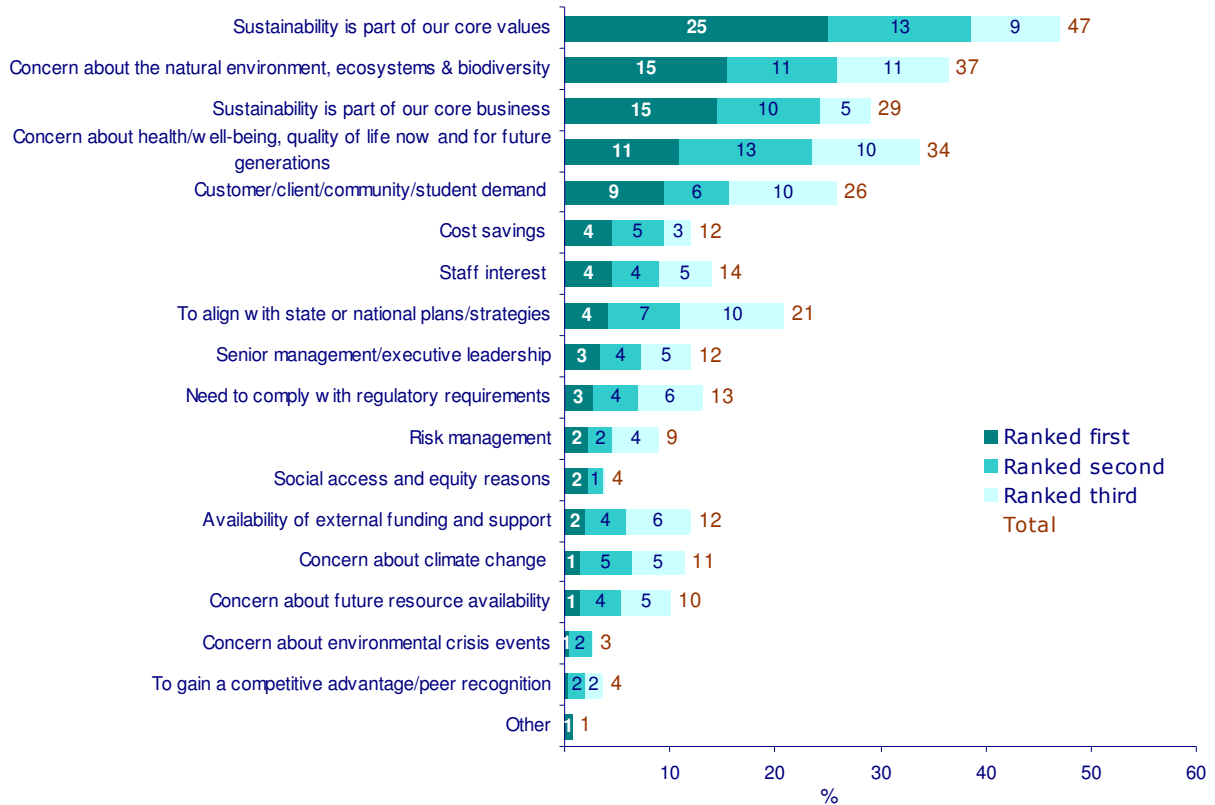
In state government, participants who worked in environment, land or water management were more likely to indicate that the *community* was a key audience, (73%) while those in state government organisations with other functions were more likely to state that their *own staff* were a key audience.

Those in the education sector were more likely to mention *students* (71%) as one of their main audiences. They were also more likely to indicate that their *own staff* is a key audience (46%), perhaps indicating efforts to include sustainability in the curriculum. This sector was less likely to mention the *community* (24%). This is also reflected in the role in organisation variable, where teachers and lecturers were more likely (79%) to indicate *students* as a main audience and less likely to nominate *community* (24%).

Reasons for undertaking sustainability initiatives

This research sought to understand organisational motivations for undertaking sustainability initiatives by asking participants to rank up to three key reasons in order of importance. Figure 12 presents the findings.

Figure 12: Drivers behind sustainability initiatives



Base: If sustainability is a consideration in respondent's organisation, n=356
 B5. Why does your organisation undertake sustainability initiatives/programs?

The most common reason was that sustainability is *part of their organisations' core values*: over a quarter of participants (26%) considered this the most important driver, 13% considered this the second most important driver, with almost half (48%) nominating this as one of their three reasons. *Concern about the natural environment, ecosystems and biodiversity* was the next most frequently listed driver for undertaking initiatives, with 15% selecting it as the primary reason, 11% as their second most important reason and 37% nominating it as one of their three reasons. Quality of life issues, including health, also ranked relatively highly, with 34% selecting this as one of their three top reasons.

Just under two-thirds (64%) of participants ranked sustainability as *part of their core business* and/or *core values* in their top three reasons for undertaking sustainability initiatives.

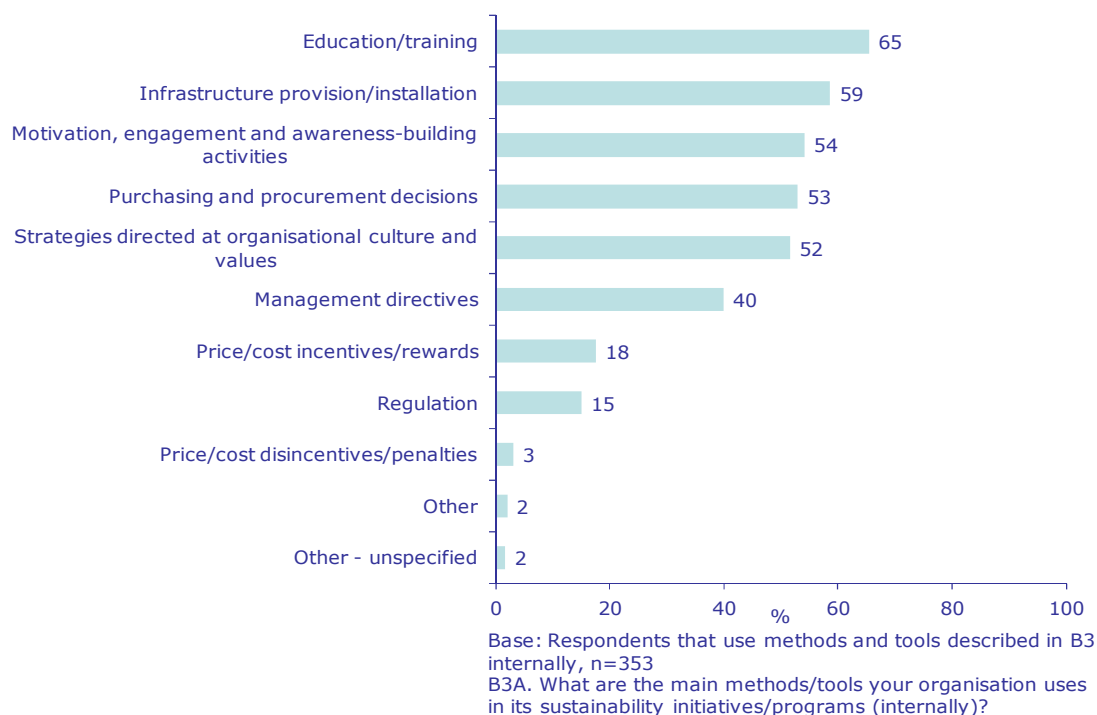
Only one significant difference was found between sample profile groups when first ranked answers were tested. Those in local government were more likely (18%) to rank *customer/client/community/student demand* as the most important reason for undertaking sustainability initiatives.

Main tools employed in sustainability initiatives

Internal operations

Participants who stated that sustainability had at least minor importance in the internal operations of their organisation were asked to identify the main methods or tools their organisation employed in its internal sustainability initiatives or programs (Figure 13).

Figure 13: Tools used in sustainability initiatives internally



The most common tool used in internal sustainability initiatives was *education and training*, nominated by almost two-thirds (65%) of participants (Figure 13). Over half also engaged in other staff engagement-focused activities such as *motivation, engagement and awareness building activities* (54%), and *strategies directed at culture and values* (52%).

Infrastructure provision and installation (59%) was the second most common method or tool in internal sustainability initiatives. *Purchasing and procurement decisions* were also reported to be used by over half (53%) of participants. *Management directives* were mentioned by 40% of participants.

The use of pricing mechanisms (*incentives* or *disincentives*) and *regulation* were reported far less often, all mentioned by less than 20%.

By sector (Table 12), those in state government were more likely to mention *management directives* (59%) as a tool for delivering internal sustainability initiatives. Local government organisations were more likely to use *purchasing and procurement* (68%). The community sector had a very different profile to other sectors, being more likely than others to use *motivation, engagement and awareness building activities* (67%), but less likely to use *price or cost incentives/rewards* (6%), *management directives* (23%) or *purchasing and procurement decisions* (32%).

Those whose main audience was external to their organisation were less likely than others to use tools that are used mainly internally: *management directives* (34%), *purchasing and procurement* (50%) and *strategies directed at organisational culture* (45%). Those with only an external audience were also less likely to use *price or cost incentives/rewards* (14%), and *education and training* (61%).

By contrast, those whose main audiences were both internal and external were more likely than others to use several tools internally, indicating a higher level of holistic involvement with sustainability by these organisations. The tools more likely to be used were: *price/cost incentives* (27%); *regulations* (26%); *management directives* (55%); and *strategies directed at organisational culture* (71%).

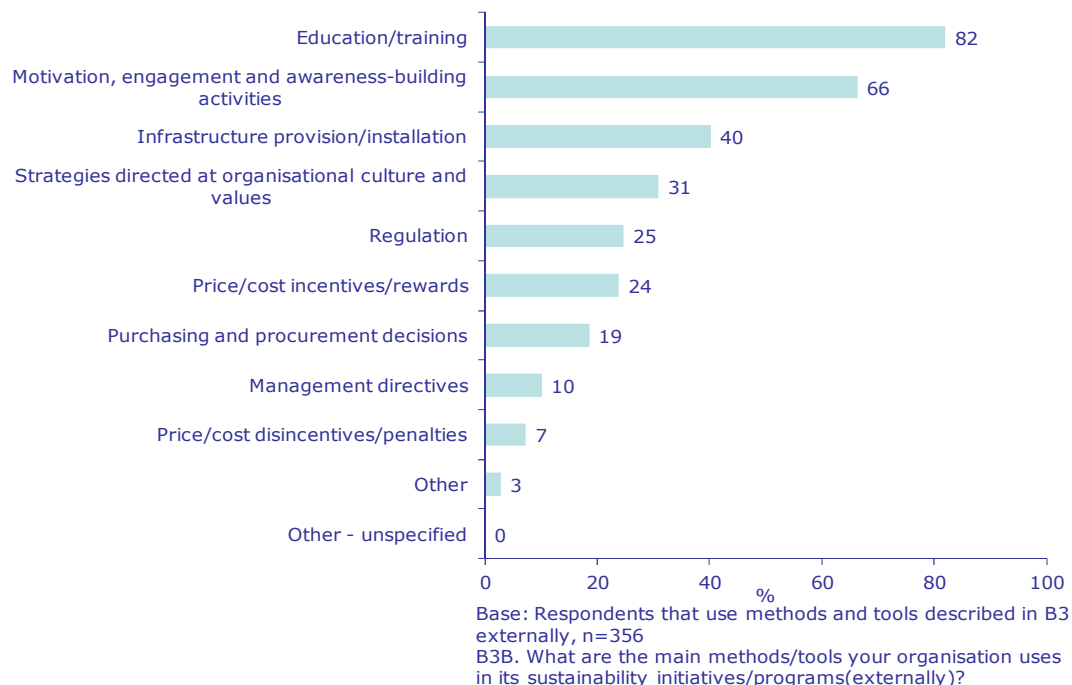
Table 12: Tools used in delivering sustainability initiatives internally: significant differences across the sample profile

	Price/cost incentives/rewards	Price/cost disincentives/penalties	Education/training	Regulation	Management directives	Infrastructure provision/installation	Motivation, engagement and awareness-building activities	Purchasing and procurement decisions	Strategies directed at organisational culture and values	Other - unspecified	Other
	%	%	%	%	%	%	%	%	%	%	%
Industry sector (n=353)											
State government	10	2	61	24	59	55	45	55	53	2	0
Local government	24	4	69	13	44	67	47	68	54	2	2
Business and industry	21	8	44	18	46	51	49	62	49	3	3
Education	28	2	66	13	38	69	59	49	51	0	2
Community	6	1	73	13	23	47	67	32	50	2	3
TOTAL	18	3	65	15	40	59	54	53	52	2	2
Main audiences (n=244)											
Internal audiences	25	0	82	7	54	75	71	64	61	0	0
External audience	14	3	61	13	34	56	50	50	45	2	3
Both internal and external audiences	27	5	74	26	55	65	56	64	71	1	1
TOTAL	18	3	66	15	41	60	53	54	53	2	2
Age (n=285)											
18-34	25	6	68	16	46	74	55	67	61	0	0
35-44	15	4	62	15	54	59	45	48	54	3	0
45-54	15	1	64	19	36	66	64	56	47	1	4
55+	13	1	65	10	18	46	53	43	50	4	1
TOTAL	17	3	65	15	38	61	54	53	53	2	1
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.											
Segment shaded LIGHT GREEN is significantly less likely.											

External operations

Participants who stated that sustainability in external operations had at least minor importance in their organisation were asked to identify the main methods or tools employed by their organisation in relation to its external sustainability initiatives or programs.

Figure 14: Tools used in sustainability initiatives externally



Externally, *education and training* was also the most popular tool, nominated by 82% of participants (Figure 14). *Motivation, engagement and awareness-building activities* was used by two-thirds (66%). *Infrastructure provision and installation* was the third most commonly used tool, nominated by 40%.

In contrast to internal initiatives, *purchasing and procurement decisions* were mentioned less often (19%) as were *management directives* (10%). While *price mechanisms* were used less, they were mentioned by almost a third (31%), compared to 21% for internal initiatives.

The tools used externally most often by sub-groups (Table 13) differed from those used internally. State and local government were more likely to use *regulation* (59% and 37% respectively). Local government was also more likely to use *price or cost incentives* (36%) and *infrastructure provision and installation* (65%). Community sector organisations, perhaps because of limited financial base and statutory powers, were less likely to use tools that involve: *infrastructure provision and installation* (24%); *price or cost incentives/rewards* (8%); *regulation* (7%); and *price or cost disincentives* (0%).

Those in roles dealing extensively with sustainability issues were also more likely to report the use of several tools. Those in state government environment, land or water management agencies were more likely to report use of *price incentives* (54%) and *education/training* (100%). Those who spent more than 80% of their work time on sustainability were more likely to use *price incentives* (35%), *education or training* (98%), *management directives* (15%), and *motivation, engagement and awareness-building activities* (74%).

Table 13: Tools used in delivering sustainability initiatives externally: significant differences across the sample profile

	Price/cost incentives/rewards	Price/cost disincentives/penalties	Education/training	Regulation	Management directives	Infrastructure provision/installation	Motivation, engagement and awareness-building activities	Purchasing and procurement decisions
	%	%	%	%	%	%	%	%
Industry sector (=356)								
State government	33	16	80	59	24	27	71	29
Local government	36	11	81	37	8	65	68	17
Business and industry	28	10	69	21	18	38	67	31
Education	14	2	86	3	3	30	51	16
Community	8	0	88	7	7	24	72	11
TOTAL	24	7	82	25	10	40	66	19
Government organisation (n=51)								
Environment, land or water managers	54	23	100	73	31	27	77	27
Other	12	8	60	44	16	28	64	32
NET	33	16	80	59	24	27	71	29
Role in organisation (n=356)								
Senior management	29	8	79	24	13	38	65	27
Team leader	13	5	79	21	8	31	67	21
Teacher/lecturer	6	0	79	9	6	21	50	12
Officer/program coordinator	32	10	86	31	10	52	68	16
Other	7	5	76	19	12	26	74	14
TOTAL	24	7	82	25	10	40	66	19
Time in role spent on sustainability (n=356)								
Over 80%	35	8	89	29	15	45	74	23
51-80%	15	8	80	23	9	33	65	15
26-50%	16	6	82	29	2	51	67	8
25% or less	14	5	71	14	5	32	48	21
Not part of my job	0	10	40	10	0	0	60	10
TOTAL	24	7	82	25	10	40	66	19
Main audiences (n=346)								
Internal audiences	21	4	71	25	4	39	39	29
External audience	22	9	83	23	12	39	70	20
Both internal and external audiences	33	5	87	31	7	49	65	13
TOTAL	25	7	83	25	10	41	66	19
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.								
Segment shaded LIGHT GREEN is significantly less likely.								

2.3 Sustainability education and engagement in NSW organisations

This section details findings from questions relating to education and engagement activities carried out by participants' organisations. It first considers organisations' general education and engagement activities, the language used to describe education/engagement and the extent to which education activities address sustainability outcomes; then moves to the extent of sustainability education and engagement activities internally and externally; and organisations' sustainability education goals.

Section snapshot

- Over two-thirds (69%) of participants stated that their organisation conducts general education or engagement activities both internally and externally. Those who spent more than 80% of their work time on sustainability initiatives were more likely report both internal and external education/engagement (77%), while the business sector was more likely to conduct these activities for staff only (23%).
- The terms *engagement* and *education* were preferred terms for almost two-thirds (65%) of participants. *Engagement* was used by over half in all sectors, while *education* was used by 60% or more in all sectors except business and industry.
- At least half of participants (50% in internal activities and 64% in external activities) stated that *their education and engagement* activities addressed sustainability either *extensively* or *significantly*.
- Almost all participants (95%) nominated *building knowledge, awareness and understanding* as a goal of their sustainability education, with an average weighting of 28%, the highest across all goals, followed by *directly influencing people's behaviour*, nominated by 86% with an average weighting of 20%. The least important goals were *discussing and reflecting on values, visions for the future and/or current unsustainable systems* (average weighting of 9%) and *developing capacity for problem analysis and critical thinking* (weighting of 7%).
- The most common reason, nominated by 52%, for choosing to use education in sustainability programs was *an understanding of the contribution education can make to can make to sustainability*.
- The most common barrier to use education in sustainability programs was *external funding and resource issues*, nominated by 51%. Those in regional areas and those whose main audience was external were more likely to nominate this as their most significant barrier.
- Talks and presentations (74%), print information (68%) and practical workshops (61%) were the most common methods of delivery for sustainability education initiatives. Community groups were more likely to use socially based tools: internet and social media (57%, compared to 44% of the total sample) and mentoring (32%, compared to 19% of the total sample).
- The most common consideration for choosing the method of delivery was the *target audience*, mentioned by 51%, more than double the next most important, *budget or funding* (24%).
- *Resource efficiency* in energy, water and waste were the top three issues for sustainability engagement or education initiatives. Energy efficiency was particularly important for those with internal audiences (92%).
- *Increased knowledge* was the most common single change influenced by sustainability education and engagement activities, identified by 33% of participants.
- A quarter (26%) indicated the use of formal evaluation and monitoring of sustainability outcomes in their organisation, while a quarter indicated that anecdotal or informal feedback was used.

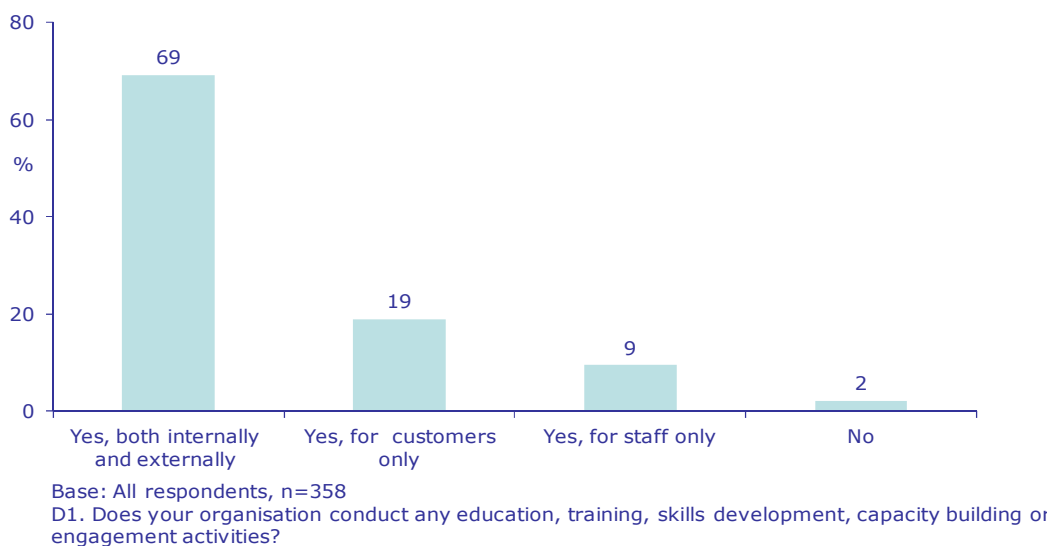
General education and engagement activities

In this section, the survey first asked participants about education and engagement in their organisations generally. Survey instructions noted these questions referred to any education, training, teaching and learning, skills development, capacity building or engagement activities conducted in or by their organisation.

Audience

Participants were asked to identify whether their organisation conducted any education, training, skills development, capacity building or engagement activities, and, if so, whether these were for internal (staff) and/or external (customers/clients/students/community) audiences (Figure 15).

Figure 15: Involvement in general education and engagement activities (%)



Education, skills development and capacity-building activities of some sort were conducted by or within most of the participants' organisations (98%). A large majority (69%) indicated that these were provided both internally and externally. Almost one in five participants (19%) stated that they were conducted for clients/community but not staff, and slightly less than one in ten participants (9%) indicated for staff only.

Table 14 shows statistically significant differences in education, skills development and capacity-building activities across the sample profile.

While most industry sectors reported they undertook training, skills development and engagement activities both internally and externally, state government was more likely to not be engaged in such activity, with 8% of participants from the sector indicating that they don't undertake any education or training. The business and industry sector, however, was more likely than other sectors to engage only in internal staff education and training activity only (23%).

Those who spent more than 80% of their work time on sustainability (77%) and state government organisations involved in environment, land and water management (85%) were more likely to report that their education and training activities were for both internal and external audiences.

Table 14: Education, training, skills development, capacity-building or engagement activities: significant differences across the sample profile

	Yes, both internally for staff and externally	Yes, for our customers/clients/ students/community	Yes, for staff only	No
	%	%	%	%
Industry sector (n=358)				
State government	62	15	15	8
Local government	75	16	8	1
Business and industry	51	21	23	5
Education	70	24	5	2
Community	73	21	6	0
TOTAL	69	19	9	2
Government organisation (n=52)				
Environment, land or water managers	85	8	8	0
Other	38	23	23	15
TOTAL	62	15	15	8
Time in role spent on sustainability (n=358)				
Over 80%	77	15	7	1
51-80%	68	23	8	2
26-50%	61	27	6	6
25% or less	56	19	22	3
Not part of my job	64	18	9	9
TOTAL	69	19	9	2
Main audiences (n=347)				
Internal audiences	61	7	25	7
External audience	69	23	6	2
Both internal and external audiences	73	12	14	1
TOTAL	69	19	10	2
Education/sustainability sector (n=231)				
Sustainability initiatives in general	68	13	11	9
Sustainability or environmental education	79	15	6	0
Education/engagement generally	50	50	0	0
TOTAL	76	16	6	2
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.				
Segment shaded LIGHT GREEN is significantly less likely.				

Terminology used

Survey participants were asked to indicate the language used in their organisation or sector to describe education or engagement activities. Participants were able to select more than one option.

Engagement and *education* were the terms most commonly used to describe education activities across the sample, with 65% of participants indicating use of each in their organisation or sector (Figure 16). *Capacity-building* was the next most popular term, nominated by nearly half of participants (47%). *Awareness-building/raising* was the least used term, nominated by just 1% of participants.

Table 15 shows significant differences across the sample profile with regard to the terms used to describe education and engagement.

In the state government sector, environment, land and water management organisations were significantly more likely to use the terms *education* and *capacity building* (77% and 73% respectively).

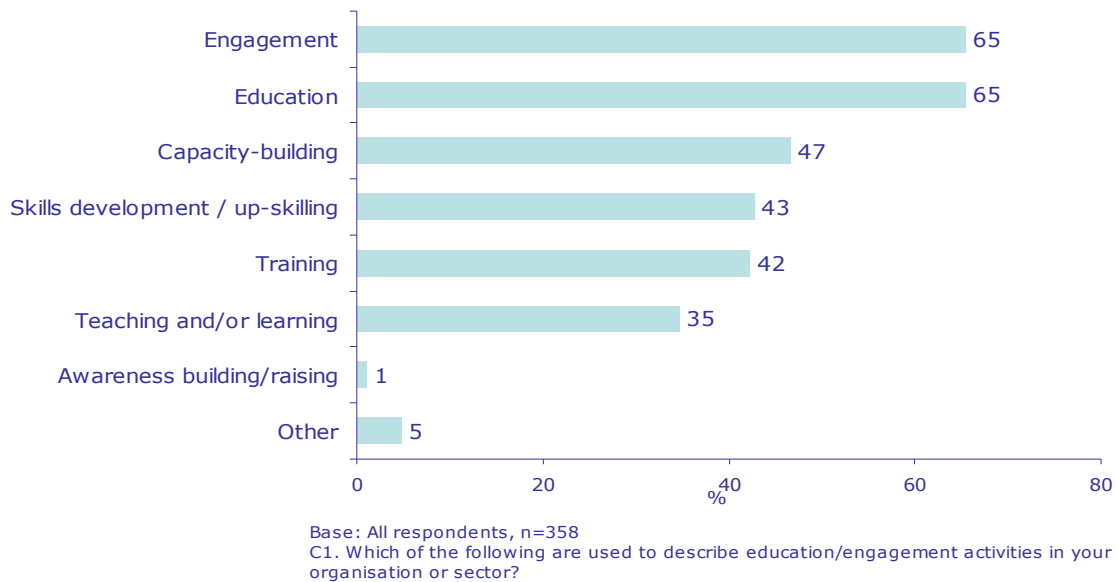
Participants from the education sector were significantly more likely (70%) to indicate they use *teaching and/or learning*. Local government, on the other hand, reported they were significantly less likely to use this terminology (18%).

Table 15: Language used to describe education and engagement: significant differences across the sample profile

	Education %	Training %	Teaching and/or learning %	Capacity- building %	Skills development /up-skilling %	Engagement %	We don't do/consider any of these things %
Industry sector (n=358)							
State government	60	50	31	52	50	69	4
Local government	71	37	18	50	37	65	0
Business and industry	46	54	23	36	44	56	8
Education	78	43	70	46	38	54	0
Community	61	39	38	44	49	76	0
TOTAL	65	42	35	47	43	65	1
Government organisation (n=52)							
Environment, land or water managers	77	54	31	73	65	77	0
Other	42	46	31	31	35	62	8
TOTAL	60	50	31	52	50	69	4
Role in organisation (n=358)							
Senior management	52	40	38	45	57	69	1
Team leader	72	49	28	56	41	77	3
Teacher/lecturer	74	35	68	26	29	53	0
Officer/program coordinator	70	43	29	54	43	64	0
Other	61	45	27	32	27	64	7
TOTAL	65	42	35	47	43	65	1
Time in role spent on sustainability (n=358)							
Over 80%	72	51	32	61	50	76	0
51-80%	62	30	39	44	38	62	0
26-50%	61	31	37	33	35	53	2
25% or less	61	44	39	28	36	53	5
Not part of my job	27	27	9	18	36	55	9
TOTAL	65	42	35	47	43	65	1
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.							
Segment shaded LIGHT GREEN is significantly less likely.							

Those participants that identified themselves as being in senior management roles (57%) were significantly more likely to use *skills development/up-skilling* to describe education and engagement.

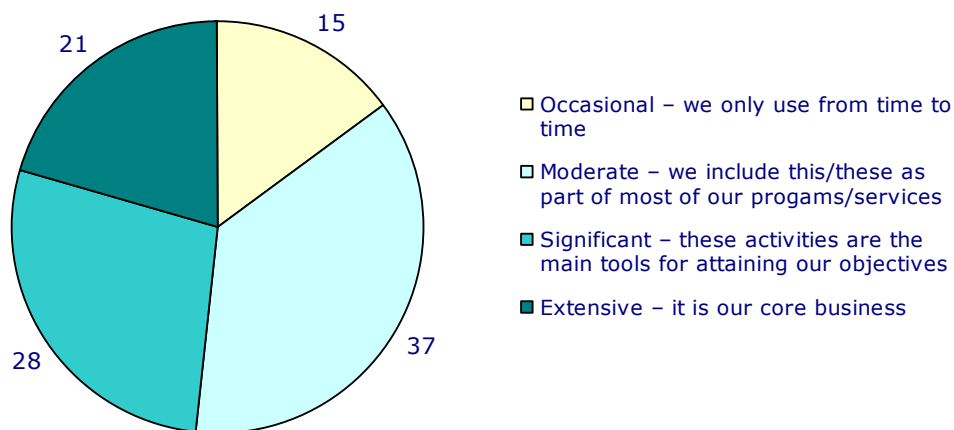
Figure 16: Language used to describe education and engagement activities



Extent

Participants who said their organisation conducts any general education, training, skills development, capacity building or engagement activities were asked about the extent of these activities (Figure 17).

Figure 17: Extent of general education and engagement activities



Base: All respondents whose organisation conducts education, training, skills development, capacity building or engagement activities, n=349
D2. How would you describe the extent of your organisation's education, training, skills development, capacity building or engagement activities?

Among participants whose organisations conduct education or training activities, 21% considered the activities to be *extensive* (i.e. at the core of their business) and a further 28% considered the extent of their activities to be *significant* (i.e. they are the main tools their organisation uses to attain its objectives). A total of 15% of participants indicated that education is only used *occasionally* in their business.

Table 16 indicates the extent of current education and engagement activities across the sample profile. As might be expected, those in the education sector (48%) and those in teaching and lecturing positions (45%) were more likely to report conducting education and engagement *extensively*. Participants from the local government sector were significantly more likely to indicate that education and engagement activities are a *moderate* (52%) or *occasional* (24%) part of their business.

In contrast, those who spent 25% or less of their work time working on sustainability were more likely to report education and engagement activities an *occasional* part of their work (27%), as were those who did not work on sustainability at all (50%), or who worked on sustainability initiatives in general (28%).

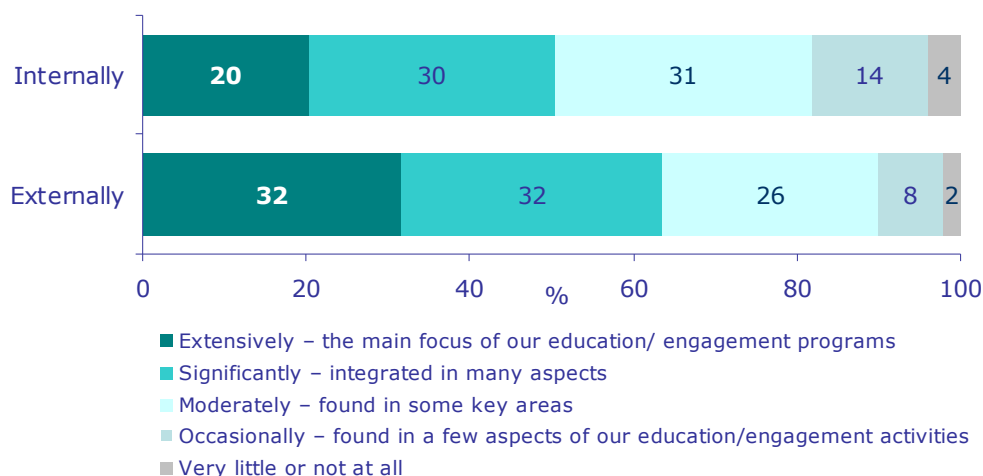
Table 16 Extent of education, training, skills development, capacity-building or engagement activities: significant differences across the sample profile

	Extensive – it is our core business	Significant – the main tools for attaining our objectives	Moderate – we include as part of most of our programs /services	Occasional – we only use from time to time
	%	%	%	%
Industry sector (n=349)				
State government	13	38	40	9
Local government	2	22	52	24
Business and industry	24	32	32	11
Education	48	19	24	8
Community	28	33	26	13
TOTAL	21	28	37	15
Role in organisation (n=349)				
Senior management	23	36	32	10
Team leader	24	38	24	14
Teacher/lecturer	45	15	30	9
Officer/program coordinator	12	25	44	19
Other	27	24	34	15
TOTAL	21	28	37	15
Time in role spent on sustainability (n=349)				
Over 80%	25	30	33	12
51-80%	22	31	43	5
26-50%	17	39	28	15
25% or less	13	15	45	27
Not part of my job	10	0	40	50
TOTAL	21	28	37	15
Education/sustainability sector (n=227)				
Sustainability initiatives in general	9	30	33	28
Sustainability or environmental education	26	30	36	8
Education/engagement generally	13	63	25	0
TOTAL	22	31	35	11
Age (n=282)				
18-34	16	29	42	13
35-44	13	19	43	26
45-54	18	30	40	12
55+	33	31	23	13
TOTAL	20	27	37	16
Membership of networks (n=282)				
Member of sustainability education organisation	20	30	43	7
Member of other organisations	28	26	25	21
No memberships	11	27	45	18
TOTAL	20	27	37	16
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.				
Segment shaded LIGHT GREEN is significantly less likely.				

Sustainability outcomes in education and engagement activities

Figure 18 shows the extent to which participants felt their organisations' education and engagement activities address sustainability issues or outcomes, both internally and externally.

Figure 18: Extent to which organisations' education and engagement activities address sustainability issues or outcomes



Base: Respondents whose organisation conducts education, training, skills development, capacity building or engagement activities, n *internally* =279, n *externally* =314
 D3. To what extent do your organisation's education/training/skills development/ engagement activities address sustainability issues or outcomes

Almost half (45%) of participants whose organisations conduct education or engagement activities internally (for staff) said these activities address sustainability only *moderately* or *occasionally* and half said *significantly* (30%) or *extensively* (20%).

Those whose organisations provide education or engagement activities externally (for customers, clients, students or community) indicated a higher level of inclusion of sustainability. Almost two-thirds (64%) said their external programs addressed sustainability either *extensively* (32%) or *significantly* (32%), with just over a third stating it was addressed *moderately* (26%) or *occasionally* (8%).

Table 17 shows significant differences across the sample with regard to the extent to which internal education programs were reported to address sustainability.

The community sector (39%) and business sector (41%) were significantly more likely, and the local government sector was less likely (3%), to indicate that their education activities *extensively* address sustainability issues internally. Those in the local government sector were more likely to indicate that education activities only *moderately* (49%) or *occasionally* (27%) addressed sustainability issues.

Similarly, those who spend over 80% of their role on sustainability (29%) were significantly more likely and those who spend 25% or less of their role on sustainability (4%) were significantly less likely to indicate that education activities *extensively* address sustainability issues internally.

Table 17: Extent to which education activities address sustainability issues or outcomes internally: significant differences across the sample profile

	Extensively – the main focus of our education/engagement programs %	Significantly – integrated in many aspects %	Moderately – found in some key areas %	Occasionally – found in a few aspects of our education/engagement activities %	Very little or not at all %
Industry sector (n=279)					
State government	13	46	26	13	3
Local government	3	18	49	27	3
Business and industry	41	17	21	10	10
Education	20	37	37	4	2
Community	39	38	11	7	4
TOTAL	20	30	31	14	4
Role in organisation (n=279)					
Senior management	24	33	26	11	6
Team leader	14	52	17	17	0
Teacher/Lecturer	21	25	46	4	4
Officer/program coordinator	12	25	39	20	3
Other	52	26	13	3	6
TOTAL	20	30	31	14	4
Time in role spent on sustainability (n=279)					
Over 80%	29	21	33	14	2
51-80%	18	54	18	10	0
26-50%	12	33	39	9	6
25% or less	4	30	34	22	10
Not part of my job	25	25	25	13	13
TOTAL	20	30	31	14	4
Main audiences (n=271)					
Internal audiences	8	25	46	21	0
External audience	30	31	25	11	4
Both internal and external audiences	1	31	43	21	4
TOTAL	20	30	31	14	4
Age (n=233)					
18-34	18	26	28	25	4
35-44	10	16	47	19	8
45-54	29	29	31	8	3
55+	35	45	15	4	2
TOTAL	22	29	30	14	4
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.					
Segment shaded LIGHT GREEN is significantly less likely.					

Those aged 55+ (35%) were more likely to indicate their education activities *extensively* or *significantly* address sustainability issues internally, while those aged 18–34 were significantly more likely (25%) to indicate that education activities only *occasionally* address sustainability internally. Those 35–44 years were more likely to say *moderately* (47%).

Table 18 shows sample profile differences in the extent to which external education programs were reported to address sustainability.

The community sector (54%) and the business sector (57%) were both significantly more likely, and the local government and the education sectors (both 16%) less likely to indicate that education activities *extensively* address sustainability issues externally. Local government (42%) was more likely to indicate that education activities *moderately* address sustainability issues externally.

Of government participants, environment, land or water managers (46%) were significant more likely to indicate that education activities *extensively* address sustainability issues externally.

Table 18: Extent to which education activities address sustainability issues or outcomes externally: significant differences across the sample profile

	Extensively – the main focus of our education/ engagement programs	Significantly – integrated in many aspects	Moderately – found in some key areas	Occasionally – found in a few aspects of our education/enga gement activities	Very little or not at all
	%	%	%	%	%
Industry sector (n=314)					
State government	30	45	23	3	0
Local government	16	29	42	11	3
Business and industry	57	25	14	0	4
Education	16	38	28	19	0
Community	54	28	12	2	4
TOTAL	32	32	26	8	2
Government organisation (n=40)					
Environment, land or water managers	46	46	8	0	0
Other	6	44	44	6	0
TOTAL	30	45	23	3	0
Role in organisation (n=314)					
Senior management	33	44	17	3	3
Team leader	35	32	24	6	3
Teacher/lecturer	23	39	16	23	0
Officer/program coordinator	26	27	37	9	1
Other	55	24	13	3	5
TOTAL	32	32	26	8	2
Time in role spent on sustainability (n=314)					
Over 80%	44	23	26	5	2
51-80%	30	40	22	8	0
26-50%	21	44	28	7	0
25% or less	4	38	33	19	6
Not part of my job	33	44	11	0	11
TOTAL	32	32	26	8	2
Main audiences (n=305)					
Internal audiences	5	42	37	16	0
External audience	41	31	21	6	1
Both internal and external audiences	10	31	41	14	4
TOTAL	31	32	27	8	2
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.					
Segment shaded LIGHT GREEN is significantly less likely.					

Goals of sustainability education and engagement

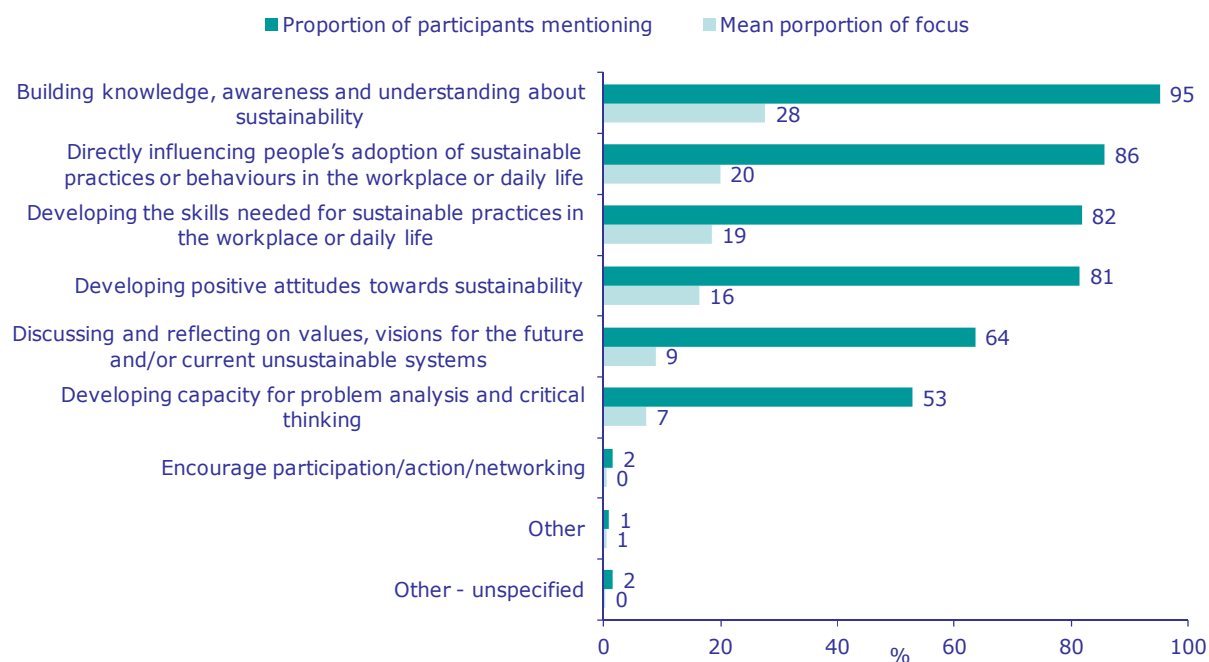
The specific goals of this sustainability education and engagement activity were explored by asking participants who stated that their internal or external education or engagement activities addressed sustainability at least occasionally to identify the goals of these activities (from a list) and assign a percentage weight to each education and engagement goal, as shown in Figure 19.²

Four goals were nominated by over 80% of participants and the relative frequency of mentions of all goals and their priority in average weighting aligned. The goal most commonly identified (by 95%) and given the most weight (average of 28%) by participants was *building knowledge and awareness about sustainability*. Three goals quite close in importance followed: *directly influencing people's adoption of sustainable practices or behaviours* (mentioned by 86% with mean weighting of 20%), *developing the skills needed for sustainable practices in the workplace or daily life* (82% and 19%), and *developing positive attitudes* (81% and 16%).

² Weights shown are mean proportion of focus allotted to each goal across the whole sample (n=308).

Participants only allotted 9% weighting on average to *discussing and reflecting on values* and 7% to *developing capacity for problem analysis and critical thinking*, indicating that these are not a priority for most organisations or their programs. However, more than half indicated that they do consider them goals (64% and 54% respectively), even if little weight is given to them.

Figure 19: Goals of sustainability education and engagement activities (proportion mentioning and mean percentage focus)



Base: Respondents whose organisation education activities address sustainability issues, n=308
 D6. What are the goals of your organisation's sustainability education/engagement activities overall? Please assign a percentage to each of the following.

In this question participants could also specify other goals of their programs. The only common theme to emerge from those mentioned was encouraging participation or networking, mentioned by 2%.

Table 19 shows the statistically significant differences in the mean weightings given to each goal by the sample profile groups tested.

The education sector (13%) and teachers/lecturers (16%) gave significantly greater weight to *developing capacity for problem analysis and critical thinking* as a goal of their sustainability education and engagement activities. Those in the local government sector gave significantly less weight (5%) to this as a goal.

Figure 20 shows that more than 9 out of 10 participants (92%) have more than two goals in mind in their sustainability education initiatives. Over a third (35%) of participants had six of the goals in mind.

No significant differences in the number of goals mentioned were found across profile variables.

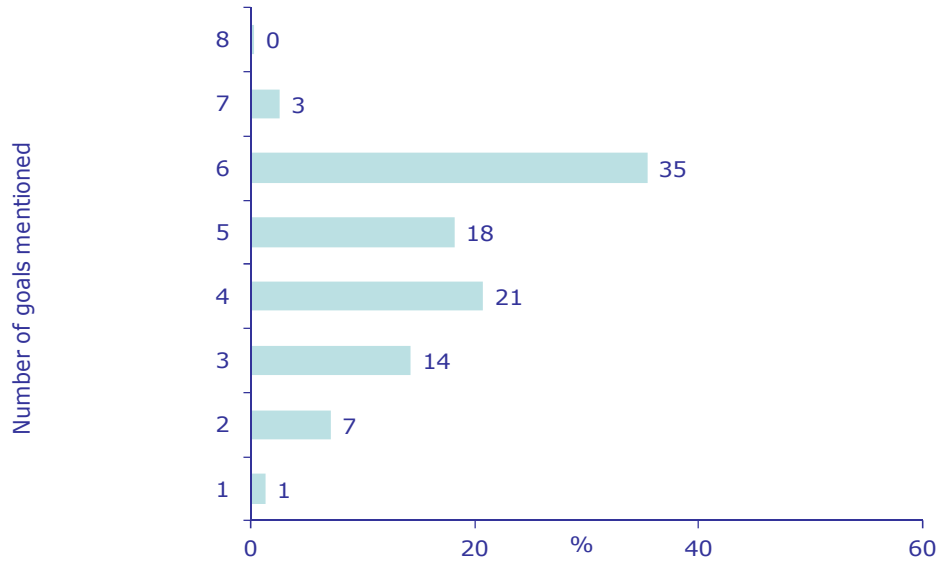
Table 19: Goals of sustainability education and engagement: significant differences across the sample profile (mean percentage focus)

	Building knowledge, awareness and understanding about sustainability	Developing positive attitudes towards sustainability	Developing the skills needed for sustainable practices in the workplace or daily life	Directly influencing people's adoption of sustainable practices or behaviours in the workplace or daily life	Discussing and reflecting on values, visions for the future and/or current unsustainable systems	Developing capacity for problem analysis and critical thinking
	%	%	%	%	%	%
Industry sector						
State government	29	15	20	19	6	8
Local government	28	15	20	23	7	5
Business and industry	24	16	20	23	9	7
Education	24	15	22	17	11	13
Community	31	20	13	18	11	7
TOTAL	28	16	19	20	9	7
Role in organisation						
Senior management	25	16	21	22	8	7
Team leader	29	22	18	18	7	7
Teacher/lecturer	27	14	15	17	12	16
Officer/program coordinator	27	15	20	21	9	7
Other	35	19	13	18	11	4
TOTAL	28	16	19	20	9	7

Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.

Segment shaded LIGHT GREEN is significantly less likely.

Figure 20: Goals of sustainability education and engagement activities (number of goals mentioned)



Base: Respondents whose organisation education activities address sustainability issues, n=308

D6. What are the goals of your organisation's sustainability education/engagement activities overall? Chart indicates proportion of participants who allocated each number of goals.

Drivers for delivering sustainability education and engagement

Participants whose organisations' education or engagement activities address sustainability were asked to identify up to three key reasons why education and engagement activities were selected as a means of addressing sustainability issues (Figure 21).

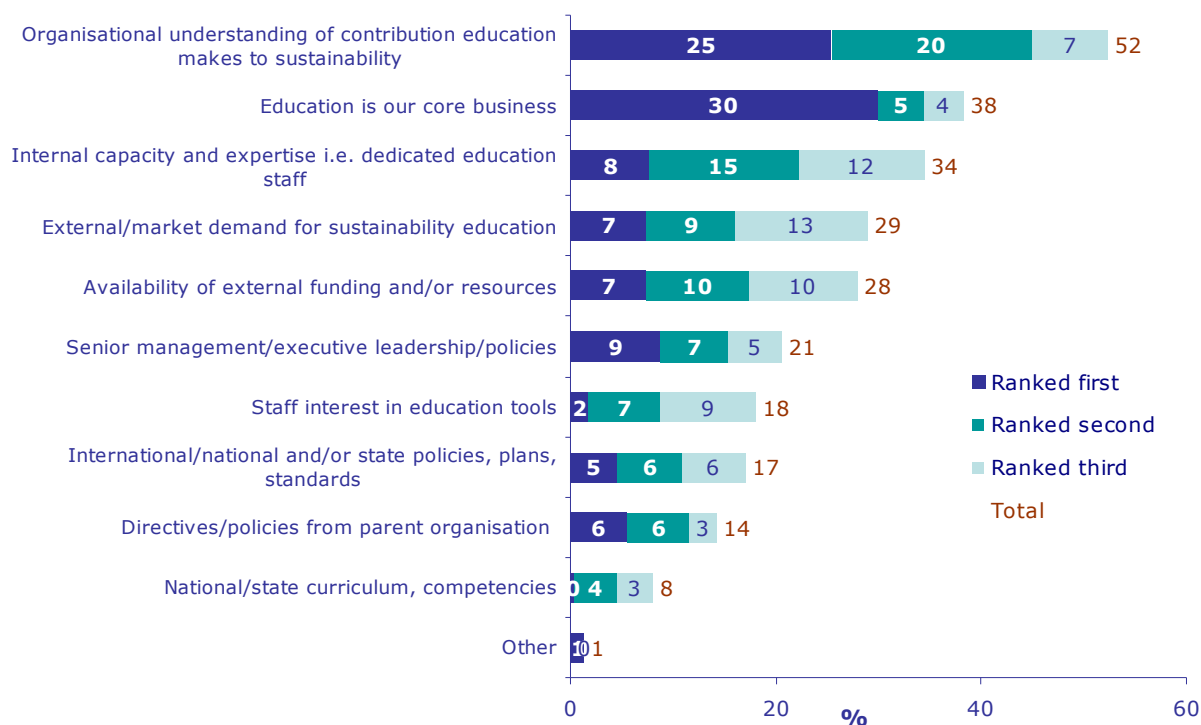
Education is our core business was the most common primary reason, selected by almost a third (30%) of participants. Overall however, *organisational understanding of the contribution education/training/engagement can make to sustainability* was the most frequently selected reason, with 52% choosing it as one of their top three reasons, 26% as the primary reason.

Over a third (34%) nominated their capacity to deliver education and engagement activities through *internal capacity and expertise i.e. dedicated staff* (29%), while over a quarter nominated *external or market demand* (29%) and *external funding, support, expertise or other resources* (28%).

The community sector was more likely to indicate that *organisational understanding of the contribution such activities can make to sustainability* is a key driver (49%), whereas local government was significantly more likely to indicate capacity issues: *availability of external funding* (18%) and *internal capacity and expertise* (18%).

Those working at officer/program coordinator level were more likely to focus on *internal capacity* as a driver (13%), whereas team leaders were more likely to identify *external funding and support* (24%).

Figure 21: Reasons education and engagement activities are used to address sustainability issues



Base: Respondents whose organisations' education activities address sustainability issues or outcomes, n=287
 D11. Why does your organisation undertake education/engagement activities as a means of addressing sustainability issues?

Table 20 shows the significant differences across sample profile groups in primary reasons for selecting education and engagement activities as means of addressing sustainability issues. As might be expected, a high proportion (77%) from the education sector selected *education is our core business*. Participants from state government indicated a policy basis to their drivers for delivering sustainability education and engagement, with significantly more selecting *directives/policies from parent organisation* (16%) and *international/national or state policies, plans or standards* (19%).

The community sector was more likely to indicate that *organisational understanding of the contribution such activities can make to sustainability* as a key driver (49%), whereas local government was significantly more likely to indicate capacity issues: *availability of external funding* (18%) and *internal capacity and expertise* (18%).

Those working at officer/program co-ordinator level were more likely to focus on *internal capacity* as a driver (13%), whereas team leaders were more likely to identify *external funding and support* (24%).

Table 20: Most important reason for selecting education and engagement to address sustainability issues: significant differences across the sample profile

	Education is our core business	Senior management/ executive leadership /policies	Directives/ policies from parent organisation	International/ national and/or state policies, plans, standards	National /state curriculum, competencies	Organisational understanding of the contribution of education /training /engagement /can make to sustainability	Availability of external funding, support, expertise or other resources
	%	%	%	%	%	%	%
Industry sector (n=282)							
State government	27	11	16	19	0	16	3
Local government	5	7	7	5	0	25	18
Business and industry	29	21	7	0	0	21	0
Education	77	6	2	2	2	6	0
Community	30	6	0	0	0	49	4
TOTAL	30	9	6	5	0	26	7
Role in organisation (n=282)							
Senior management	36	12	3	3	1	33	0
Team leader	21	10	7	3	0	21	24
Teacher/lecturer	74	0	4	0	0	11	0
Officer/program coordinator	19	10	8	7	0	23	11
Other	35	0	3	3	0	42	0
TOTAL	30	9	6	5	0	26	7
Main audiences (n=276)							
Internal audiences	24	14	10	19	0	14	5
External audience	31	6	4	3	1	28	7
Both internal and external audiences	31	13	9	4	0	21	9
TOTAL	30	9	6	5	0	26	7
Most important aspect of sustainability (n=270)							
Maintaining the natural environment, ecosystems and biodiversity	38	9	9	2	0	24	7
All these aspects are equally important to me	29	8	6	1	1	30	7
A sustainable planet for future generations	28	8	3	6	0	28	9
Other	26	15	0	15	0	15	6
TOTAL	30	9	5	4	0	27	7
Age (n=270)							
18-34	22	10	3	4	0	28	4
35-44	26	8	11	5	0	23	11
45-54	33	13	3	6	1	20	10
55+	37	4	4	1	0	36	4
TOTAL	30	9	5	4	0	27	7
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.							
Segment shaded LIGHT GREEN is significantly less likely.							

Barriers to delivering sustainability education and engagement

Participants were also asked to identify their organisations' barriers to starting or increasing sustainability education or engagement activities, either internally and/or externally (Figure 22).

Figure 22: Barriers to starting or increasing sustainability education and engagement activities



The primary barrier to starting or increasing sustainability education and engagement activities was external: *lack of external funding and/or resourcing* with over half (51%) listing this as a barrier, and 30% ranking it as the most important barrier. Other obviously external barriers were much less important with none mentioned by more than 6% as the most important barrier. *Lack of demand from clients/community* was nominated by 21% overall (6% as most important), *lack of regulation that would make it necessary* by 15% (3% as most important) and *lack of government support* by 2%.

The two most important barriers that are internal to the organisation were each nominated by just under a third (32%) of participants: *insufficient leadership and support from executive management* (13% as the most important); and *lack of priority for sustainability amongst other education priorities* (10% as the most important). *Lack of priority for education/engagement activities* was nominated by 11% as most important and was mentioned by 26% as a barrier. Two other internal barriers were nominated by more than a fifth of participants but tended to be secondary barriers: *lack of understanding of the benefits to our organisation of more sustainable practices* (total 28%, 3% most important) and *change averse culture/'laissez-faire' attitude of our organisation and/or sector* (total 21%, 6% most important). Staff issues were less commonly mentioned as barriers, with 14% of participants listing *lack of staff interest* and 4% indicating *time poor staff*.

Only 6% of participants did not consider there to be any barriers to increasing sustainability education.

Table 14: Most important barrier to delivering sustainability education and engagement: significant differences across the sample profile

	Lack of priority for education/engagement activities	Lack of priority for sustainability amongst other education priorities	Insufficient leadership, direction, and support from executive management	Lack of understanding of the benefits to our organisation of more sustainable practices	Lack of obvious demand from customers/clients/students/community	Time poor staff	Lack of staff interest	Lack of regulation that would make it necessary	Change averse culture/ 'laissez faire' attitude of organisation and/or sector	External funding and resources issues	Evaluation and evidence issues	Coordination issues	There are no barriers	Lack of government support	Other
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Industry sector (n=301)															
State government	14	2	14	2	14	5	0	2	5	21	0	5	7	5	2
Local government	15	5	21	5	1	3	1	5	8	28	3	3	1	0	0
Business and industry	12	9	6	3	6	0	0	3	15	12	12	6	15	0	0
Education	4	30	13	0	8	2	4	2	8	23	0	4	4	0	0
Community	7	5	4	4	5	4	0	0	0	49	4	5	11	1	0
TOTAL	11	10	13	3	6	3	1	3	6	30	3	4	6	1	0
Metro/regional (n=301)															
Metropolitan area	10	11	17	3	8	4	1	2	7	22	4	4	7	0	1
Regional	11	7	6	5	1	2	1	5	6	43	2	6	5	3	0
TOTAL	11	10	13	3	6	3	1	3	6	30	3	4	6	1	0
Role in organisation (n=301)															
Senior management	8	5	7	3	7	0	1	1	9	32	5	9	11	3	0
Team leader	16	13	13	6	10	3	0	3	0	29	3	0	3	0	0
Teacher/lecturer	4	30	7	0	0	0	4	4	4	48	0	0	0	0	0
Officer/program coordinator	15	6	20	4	4	5	1	4	8	24	2	4	5	0	0
Other	3	14	6	3	11	6	0	0	3	31	6	3	11	3	3
TOTAL	11	10	13	3	6	3	1	3	6	30	3	4	6	1	0
Main audiences (n=293)															
Internal audiences	13	17	4	0	17	9	0	13	4	13	0	4	4	0	0
External audience	10	7	13	4	4	3	1	2	5	37	4	4	7	2	1
Both internal and external audiences	14	16	17	3	6	1	3	1	10	17	3	3	6	0	0
TOTAL	11	10	13	3	5	3	1	3	6	30	3	4	6	1	0
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.															
Segment shaded LIGHT GREEN is significantly less likely.															

Table 14 presents statistically significant differences in the most important barrier to choosing education to address sustainability issues.

Participants from the education sector were significantly more likely to indicate a *lack of priority for sustainability amongst other education priorities* (30%), and the community sector were more likely to indicate *external funding and resource issues* as their main barrier (49%). *Insufficient leadership, direction and support from executive management* was more likely to be mentioned by those in the local government sector. Those in business and industry were more likely to cite *evaluation and evidence issues* as the main barrier (12%).

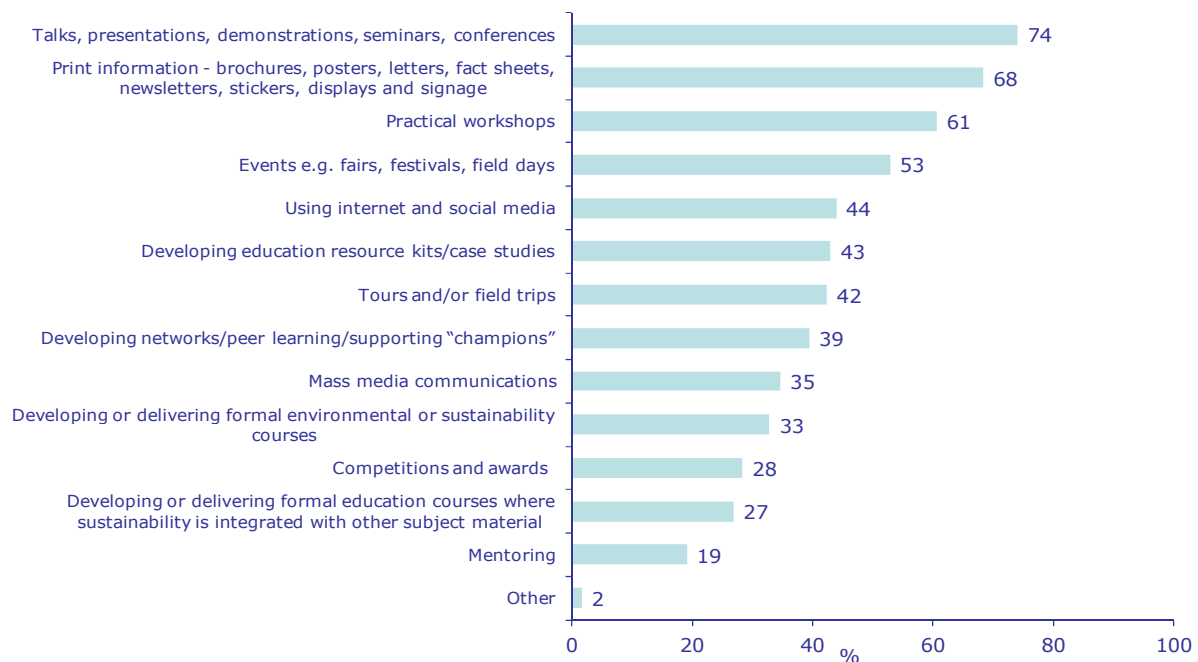
Those working at officer/program coordinator level were more likely to identify *insufficient leadership, direction and support from executive management* as the primary barrier in their organisation (21%). Teachers and educators were more likely to indicate *lack of priority for sustainability amongst other education priorities* as the primary barrier (30%).

There were also significant differences according to location. Metropolitan participants were more likely than their regional counterparts to indicate that both *insufficient leadership, direction and support from executive management* (18%) and *lack of obvious demand* (8%) are key barriers to delivering sustainability education and engagement activities. Regional participants were significantly more likely to say that *external funding and resource issues* is a barrier (43%), as were those whose main audience is external (37%).

Delivery methods for sustainability education and engagement

Survey participants were asked to indicate the main ways their organisation delivers its sustainability education or engagement activities. They could choose all that applied to their organisation (Figure 23).

Figure 23: Methods of delivery for sustainability education and engagement activities



Base: Respondents whose education, etc. address sustainability, n=335 D4. What are the main ways your organisation delivers its sustainability education/engagement activities?

The most common method was *talks, presentations and demonstrations*, nominated by just under three quarters of participants (74%), closely followed by *print media* (68%) and *practical workshops* (61%). *Events* (53%) were also mentioned by over half the participants.

Given its costs, use of *mass media* by over a third (35%) is notable, as is use of newer technologies, the *internet and social media*, by almost half (44%) of participants.

In regard to more intensive personal processes, 39% reported *developing networks/peer learning/supporting "champions"* but *mentoring* (19%) was the least commonly reported method.

There were statistically significant differences across the sample profile for methods of delivery of sustainability education and engagement activities as shown in Table 15.

As could be expected, methods used were split according to sectors. Local government was more likely to use *print information* (81%), *practical workshops* (73%), *mass media communications* (56%) and *events* (63%) as their main methods of delivering sustainability education programs. On the other hand, they were less likely than other sectors to use *formal environmental or sustainability courses* (22%) or *develop courses where sustainability is integrated with other subject material*. They were also less likely to use *mentoring* (6%). Participants from community groups were more likely to indicate the use of *social media* (57%), and were also more likely to use *mentoring* (32%).

Those in the education sector were more likely to report *developing formal environmental or sustainability courses* (64%) and *delivering courses where sustainability is integrated into the subject matter* (58%). Similarly, teachers and lecturers were more likely to say they used these methods (72% and 59% respectively). Those in the education sector were also less likely than other groups to use *print information* (49%), *practical workshops* (46%) and *mass media* (14%).

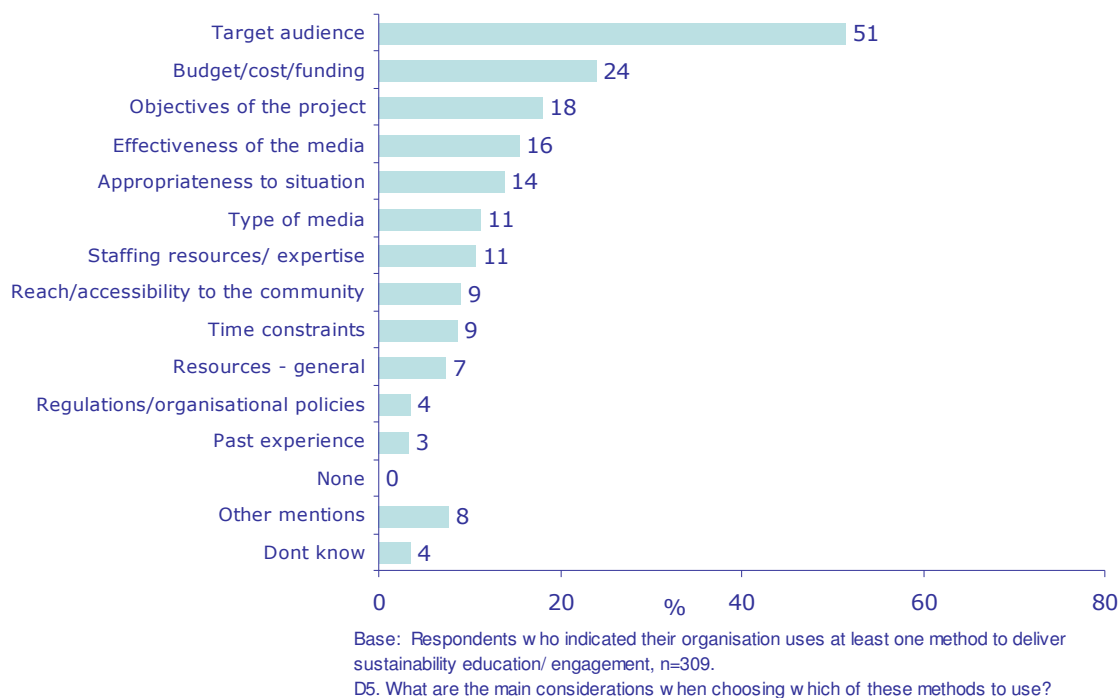
Participants for whom sustainability made up more than 80% of their work time were more likely to mention the use of *mass media communications* (43%), as well as *developing networks, peer learning or supporting champions* (49%).

Table 15: Methods of delivery of sustainability education and engagement: significant differences across the sample profile

	Talks, presentations, demonstrations, seminars, conferences %	Print information %	Developing or delivering formal environmental or sustainability courses %	Developing or delivering formal education courses where sustainability is integrated with other subject material %	Practical workshops %	Mass media communications - advertising and publicity %	Using internet and social media %	Developing education resource kits/case studies %	Developing networks/ peer learning/ supporting "champions" %	Tours and/or field trips %	Mentoring %	Events %	Competitions and awards %	Other - unspecified %	Other %
Industry sector (n=335)															
State government	70	79	32	36	57	47	51	60	38	47	19	49	28	0	2
Local government	77	81	22	12	73	56	38	36	41	47	6	63	34	0	1
Business and industry	85	56	29	29	59	12	32	26	41	24	32	29	21	0	3
Education	68	49	64	58	46	14	36	47	34	37	15	39	31	2	2
Community	72	64	26	18	57	25	57	46	41	45	32	61	23	0	2
TOTAL	74	68	33	27	61	35	44	43	39	42	19	53	28	0	2
Role in organisation n=335)															
Senior management	71	60	33	28	51	23	40	37	41	33	22	47	28	0	0
Team leader	86	76	41	27	73	49	62	65	38	51	30	70	46	0	0
Teacher/lecturer	63	53	72	59	44	9	34	34	25	41	22	31	19	0	3
Officer/program coordinator	76	73	26	22	66	46	42	42	45	44	12	56	30	1	1
Other	72	72	18	15	59	21	51	44	28	46	28	54	15	0	7
TOTAL	74	68	33	27	61	35	44	43	39	42	19	53	28	0	2
Time in role spent on sustainability (n=335)															
Over 80%	80	68	34	27	68	43	49	43	49	43	22	58	32	0	2
51-80%	77	72	34	33	58	28	45	44	39	44	17	52	25	0	2
26-50%	71	73	44	24	62	29	38	49	29	47	16	47	27	0	0
25% or less	61	63	21	25	43	25	29	38	21	34	13	41	21	2	3
Not part of my job	44	56	11	11	44	11	67	33	33	56	44	67	33	0	0
TOTAL	74	68	33	27	61	35	44	43	39	42	19	53	28	0	2
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.															
Segment shaded LIGHT GREEN is significantly less likely.															

The main considerations in choosing these methods for delivering sustainability education or engagement activities were also explored in an open-ended question (Figure 24).

Figure 24: Main considerations in choosing delivery methods for education and engagement (open question)



More than half of participants (51%) gave responses related to their *target audience*. Almost one in four (24%) reported various financial considerations (*budget, cost or funding*), while 18% of participants mentioned *objectives of the project*. A range of other considerations were rated important by between 10% and 20% participants, including: *effectiveness of media* (16%); *appropriateness to situation* (14%); and *type of media* (11%).

There were no statistically significant differences across the sample profile for this question.

Main focus of sustainability education and engagement activities

Participants were asked to indicate all topic areas that were an important focus of their organisations' sustainability education and engagement programs (Figure 25).

The main topic areas nominated were *energy efficiency, water efficiency, waste management/reduction* and *biodiversity/wildlife protection and conservation*, all of which were mentioned by more than 60% of participants. *Air pollution and air quality* (19%), *chemicals* (19%), *marine protection and conservation* (17%) were the least nominated of the listed topic areas.

In issues other than those listed, sustainability in food production/distribution was mentioned by 3% of respondents.

Figure 25: Main focus of sustainability education and engagement activities

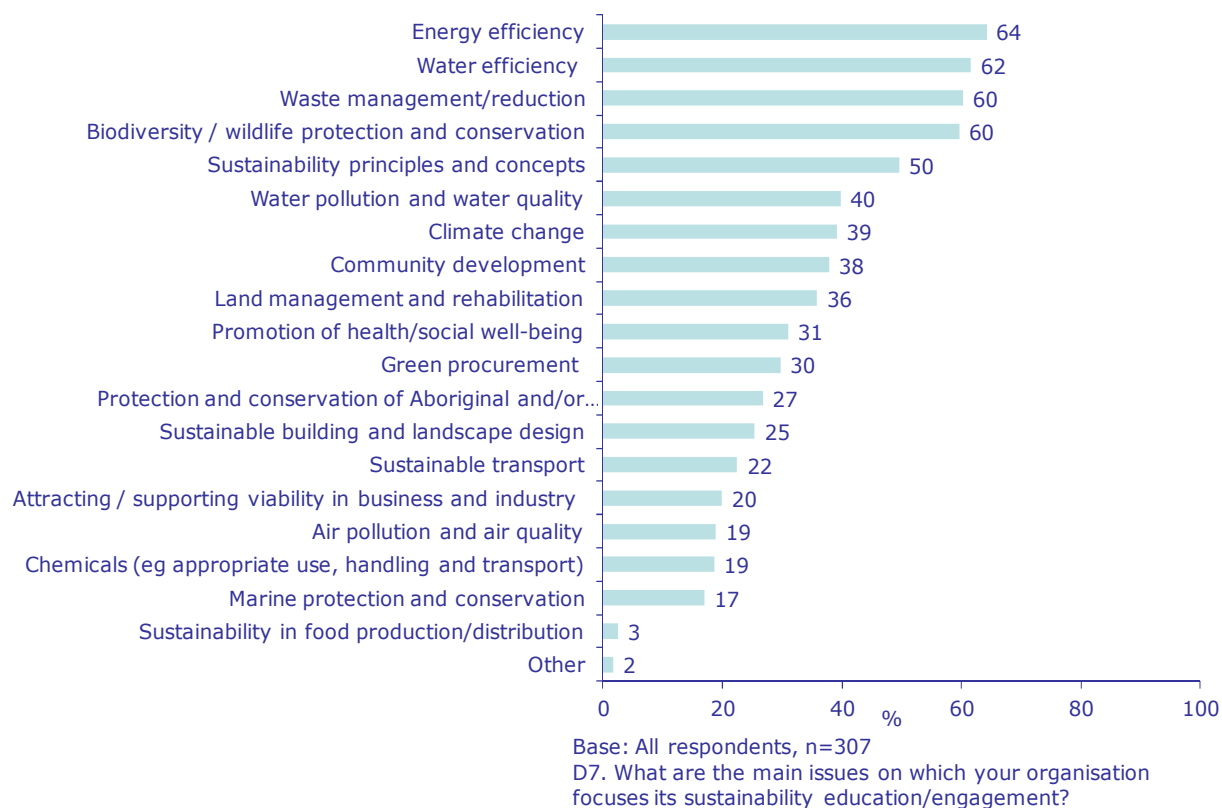


Table 16a and 23b show the statistically significant differences across the sample profile in reported main topic areas for sustainability education and engagement.

Those in the local government sector were more likely to say they focused on *waste management/reduction* (83%), *energy efficiency* (76%), *water efficiency* (75%), and *water pollution and quality* (53%). Participants from community groups, on the other hand, were less likely to mention *energy efficiency* (41%), *water efficiency* (32%) and *waste management* (42%). They were also less likely to nominate *green procurement*, but more likely to nominate *community development* (54%)

Those from the state government sector were more likely to indicate their organisation focuses on *Aboriginal and/or European cultural heritage* (55%).

For those whose education programs were for internal audiences alone, *energy efficiency* (92%) and *green procurement* (71%) were the most important issues, and they were significantly more likely to mention these issues. *Water efficiency* was also a key issue for this group. Organisations with education and engagement programs for external audiences only were less likely to nominate these three issues, but they were more likely to nominate *marine protection and conservation*.

Organisations which catered to both internal and external audiences were more likely to focus on *energy efficiency* (83%) and *water efficiency* (79%). They were also more likely to mention *sustainable building and design* (39%).

Table 16a: Main focus of sustainability engagement activities: significant differences across the sample profile

	Energy efficiency %	Water efficiency %	Green procurement %	Sustainable building and landscape design %	Climate change %	Sustainability principles and concepts %	Promotion of health/social well-being %	Biodiversity / wildlife protection and conservation %	Marine protection and conservation %	Land management and rehabilitation %
Industry sector (n=307)										
State government	52	55	26	21	38	43	14	67	26	43
Local government	76	75	39	20	44	41	34	66	11	42
Business and industry	81	74	35	19	42	58	26	26	6	19
Education	74	76	33	39	33	57	31	57	15	28
Community	41	32	14	28	36	55	37	63	26	36
TOTAL	64	62	30	25	39	50	31	60	17	36
Main audiences (n=229)										
Internal audiences	92	67	71	8	38	50	25	46	4	17
External audience	54	56	21	23	42	52	29	61	21	39
Both internal and external audiences	83	79	42	39	29	44	40	61	10	33
TOTAL	64	62	30	25	39	50	31	60	17	36

Table 23b: Main focus of sustainability engagement activities: significant differences across the sample profile

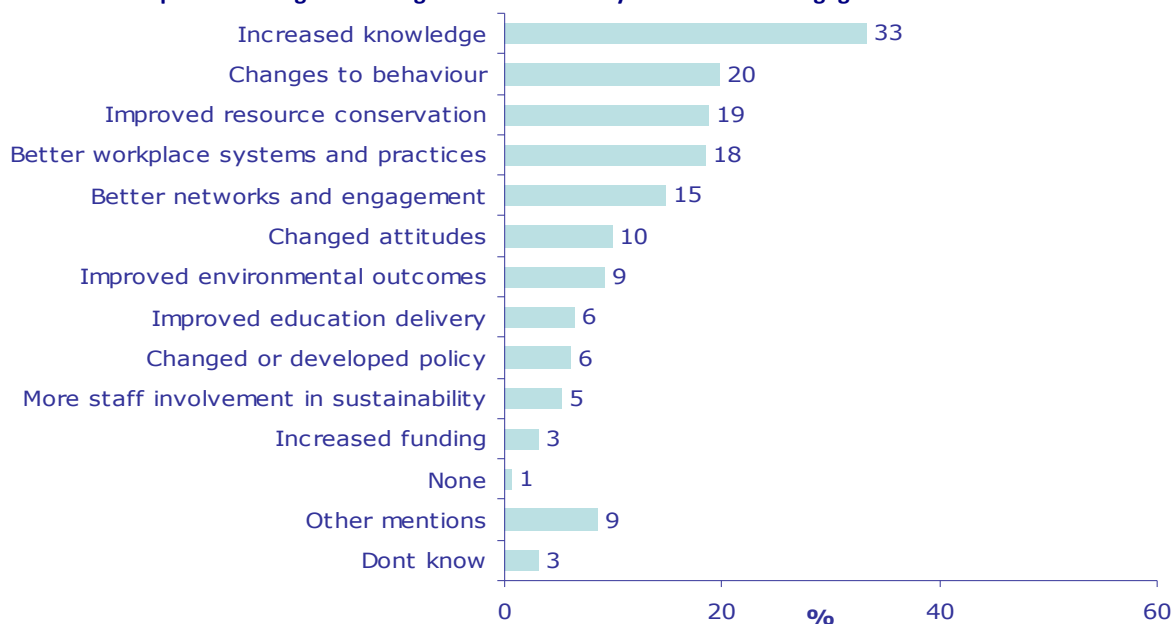
	Water pollution and water quality %	Air pollution and air quality %	Protection and conservation of Aboriginal and/or European cultural heritage %	Chemicals %	Sustainable transport %	Waste management/reduction %	Community development %	Attracting / supporting viability in business and industry %	Sustainability in food production/distribution %	Other %
Industry sector (n=307)										
State government	26	19	55	24	19	38	24	26	0	0
Local government	53	20	19	19	28	83	37	22	5	3
Business and industry	39	32	13	19	19	61	35	29	3	0
Education	39	19	24	20	26	59	28	15	2	2
Community	31	13	29	14	15	42	54	14	3	3
TOTAL	40	19	27	19	22	60	38	20	3	2
Main audiences (n=229)										
Internal audiences	33	17	29	4	21	71	17	17	0	0
External audience	39	16	28	17	21	57	41	18	3	3
Both internal and external audiences	46	26	22	29	28	71	36	26	4	0
TOTAL	40	19	27	19	23	61	38	20	3	2
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.										
Segment shaded LIGHT GREEN is significantly less likely.										

Changes resulting from sustainability engagement activities

Of participants who stated that their organisation's external or internal education or engagement activities addressed sustainability at least occasionally, 97% agreed there had been *positive changes or progress* towards sustainability either internally or externally as a result of these activities over the past few years.

Participants were asked to describe the most important changes (Figure 26).

Figure 26: Most important changes resulting from sustainability education and engagement activities



Base: Respondents whose organisation education activities address sustainability issues and who had seen positive changes towards sustainability, n=282.
D9. What are the most important of these changes?

One third of participants (33%) indicated that *increased knowledge* had been the most important change resulting from their organisation's sustainability education/engagement activities over the past few years. Many mentioned that awareness around specific issues had increased:

"Awareness-raising of what individuals can do in and around the home, e.g. growing their own food, being more energy efficient etc."

"Awareness of the impact of urbanisation on the water quality and riparian condition of Georges River through community participation in the River Health and Riverkeeper Programs."

Some were more general:

"Awareness of the implications of choices
Increasing awareness".

One in five participants (20%) reported that *changes to behaviour* was the most important change, 19% mentioned *improved resource conservation*, while 18% indicated that *better workplace systems and practices* had been the most important change.

Changes in behaviour often mentioned were increases in audience participation as well as direct changes to certain desirable behaviours:

“Increased uptake of our events, particularly workshops and field days. Increased awareness of participants to sustainable resource use and farming practices.”

“150% increase from students nominating to engage in extra curricula sustainability projects and an increased level of importance within the school's management system. Increased awareness in sustainability measures as a positive forum for students needing behavioural and learning support through to opportunities for students in developing leadership skills.”

“Community engagement.”

“More people behaving in a more environmentally sustainable manner in their daily lives and more awareness of environmental considerations.”

“Reduction of contamination in recycling collection services.”

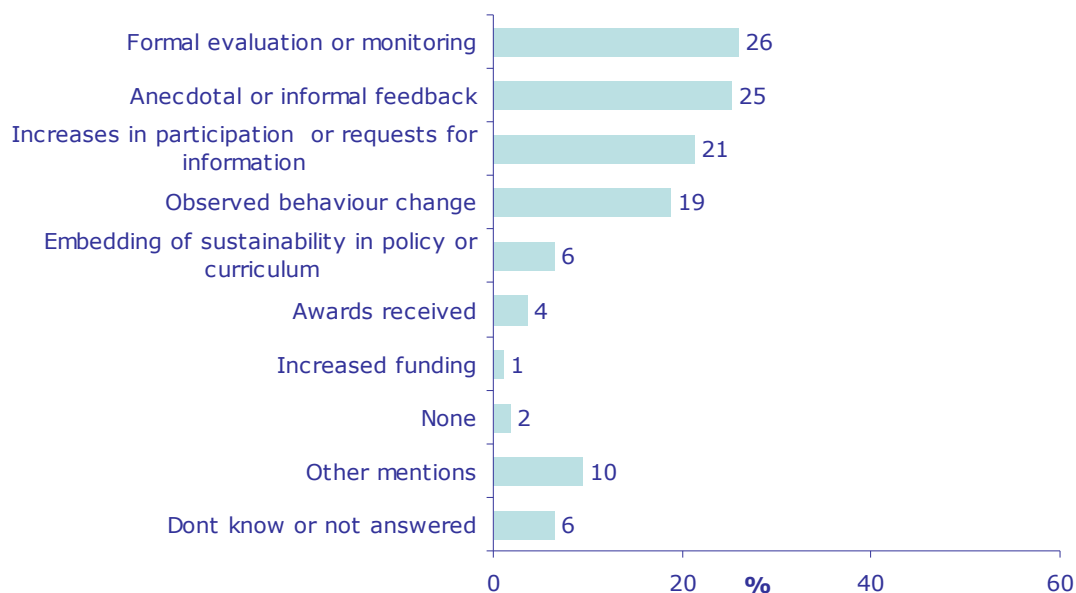
“We are influencing the local community to grow their own food and compost their waste.”

Participants in the local government sector were significantly more likely (12% compared to 5% across all groups) to indicate that the most important change was an *increase in staff involvement in sustainability*.

Evidence for changes

Survey participants, who indicated that there had been positive changes towards sustainability as a result of their organisation's activities, were asked how they link their organisation and these changes specifically. The results are shown in Figure 27.

Figure 27: Methods of measuring organisational achievements



Base: Respondents whose organisation education activities address sustainability issues and who had seen positive changes towards sustainability, n=282.

D10. How do you know your organisation has achieved or contributed to these

Only 26% indicated that they conducted *formal evaluation or monitoring*. A quarter (25%) indicated they knew about the progress towards sustainability via *anecdotal or informal feedback*, 21% mentioned *increases in participation or requests for information*, while a further 19% of participants reported an *observed behaviour change* as an indicator that the changes were a result of their organisation's activities.

Informal feedback mechanisms included evidence from staff, as well as evidence passed on by the community:

"Staff feedback."

"Talked about in business reviews."

"Feedback from clients."

"Feedback from students."

Many reported using both formal and informal methods to assess achievement of changes:

"Feedback from community members, measurable data/reduction, targets set and monitored."

"Mostly anecdotal evidence, however we have had reduced water usage but also had water restrictions as well."

"Feedback from the community. Scientific research."

Participants in the community sector were significantly less likely to mention *formal evaluation or monitoring* (11% compared to 26% across all groups). Team leaders were significantly more likely to mention *awards received* (14% compared to 4% across all groups).

Members of sustainability education associations or networks were significantly more likely to mention *formal evaluation or monitoring* (45%), while members of other organisations (13%) were significantly less likely to mention it.

2.4 Evaluating the status of sustainability education in NSW

In addition to exploring sustainability education in participants' organisations, the survey sought to explore views on the progress in sustainability education generally in NSW, preferred terms for describing sustainability education, awareness of the existing Learning for Sustainability environmental education plans, use of the plans and outcomes of the plans. For this section the sample size was reduced to 299 (those who completed the full survey).

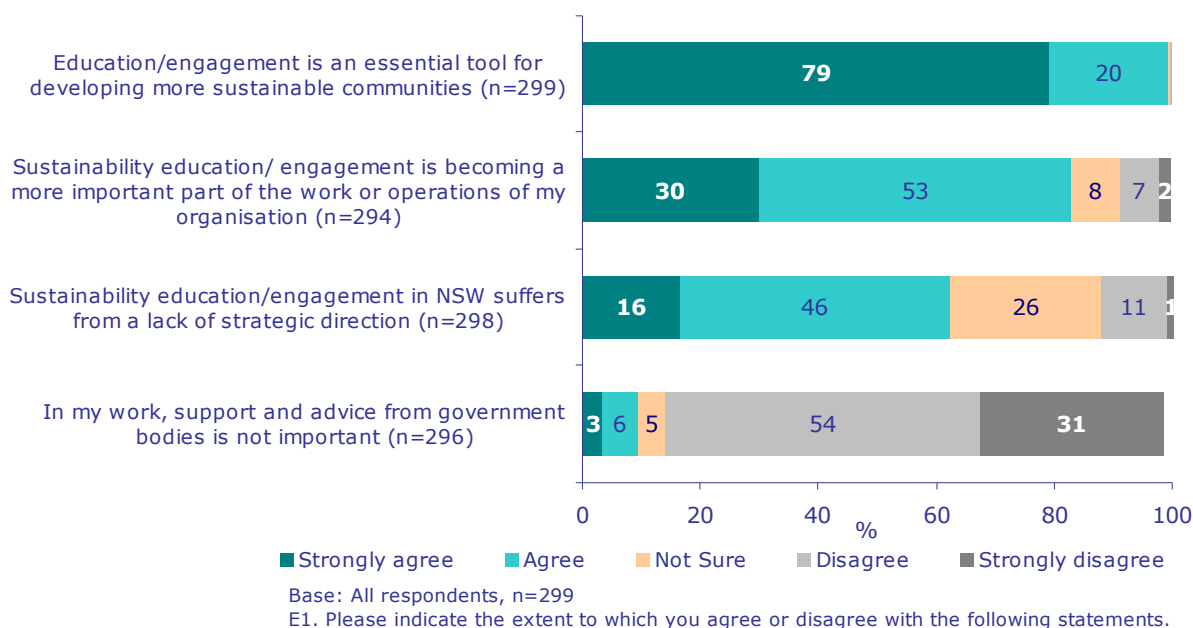
Section snapshot

- Almost all (99%) participants agreed (79% strongly) that education/engagement is an essential tool for developing sustainable communities and 81% agreed that sustainability education/engagement is becoming a more important part of the work or operations of their organisation.
- However, almost three-quarters (71%) also agreed that sustainability education/engagement in NSW suffers from a lack of strategic direction and 85% disagreed that support and advice from government is not important in their work.
- Preferred terms for sustainability education and engagement activities were split across the alternatives offered. None of the terms were given first preference by more than a quarter of the participants. The highest overall vote (taking into account top three preferences) was for *education for sustainability* (36%), closely followed by *capacity building for sustainability* (34%).
- There were relatively high levels of awareness of the Learning for Sustainability plans (65% of those completing the full survey), 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 those aware of the plan indicated that they had not read it but 24% had only browsed it.
- Approximately half of the total survey participants answered specific questions about achievement of the plan goals. More than half of these believed there had been *a lot of*, or *moderate*, activity towards achieving the plan goals related to *integration of education with other tools and strategies* (64%), *enhancing programs through partnerships and networks* (56%) and *availability of training and support for educators* (54%).
- However, over 40% believed there had been little or no activity towards *people in NSW are informed and active participants in creating a sustainable future* (59%), *all people in NSW have access to high quality programs* (46%), and achieving *cross-sectoral co-ordination of education programs* (43%).

Views about sustainability education in NSW

To assess the perceived status of sustainability education and engagement in NSW, participants were asked their level of agreement or disagreement with a number of statements (Figure 28).

Figure 28: Statements about sustainability education in NSW



At the broader level, the overwhelming majority of participants (99%) either *agreed* or *strongly agreed* that education/engagement is an essential tool for developing more sustainable communities. Members of sustainability education organisations (91%) were more likely to strongly agree with this statement and women (86%) were more likely to strongly agree than men (71%) (Table 17).

Table 17: Views on “Education/engagement is an essential tool for developing more sustainable communities”: significant differences across the sample profile

	Strongly agree	Agree	Not Sure	Disagree	Strongly disagree
	%	%	%	%	%
Membership of networks (n=287)					
Member of sustainability education organisation	91	9	0	0	0
Member of other organisations	79	20	0	1	0
No memberships	71	28	1	0	0
TOTAL	80	20	0	0	0
Gender (n=287)					
Male	71	28	1	1	0
Female	86	14	0	0	0
TOTAL	80	20	0	0	0
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.					
Segment shaded LIGHT GREEN is significantly less likely.					

Well over half (61%) *agreed* (16% *strongly*) that sustainability education in NSW suffers from a lack of strategic direction.

In their own spheres, 81% *agreed* (29% *strongly*) that sustainability education is becoming a more important part of the work of their organisation. Those in local government were less likely to strongly agree with this statement (Table 25). However, participants also indicated a strong desire for help from

the government in some form – 85% *disagreed* (31% *strongly*) that support and advice from government was not important in their work.

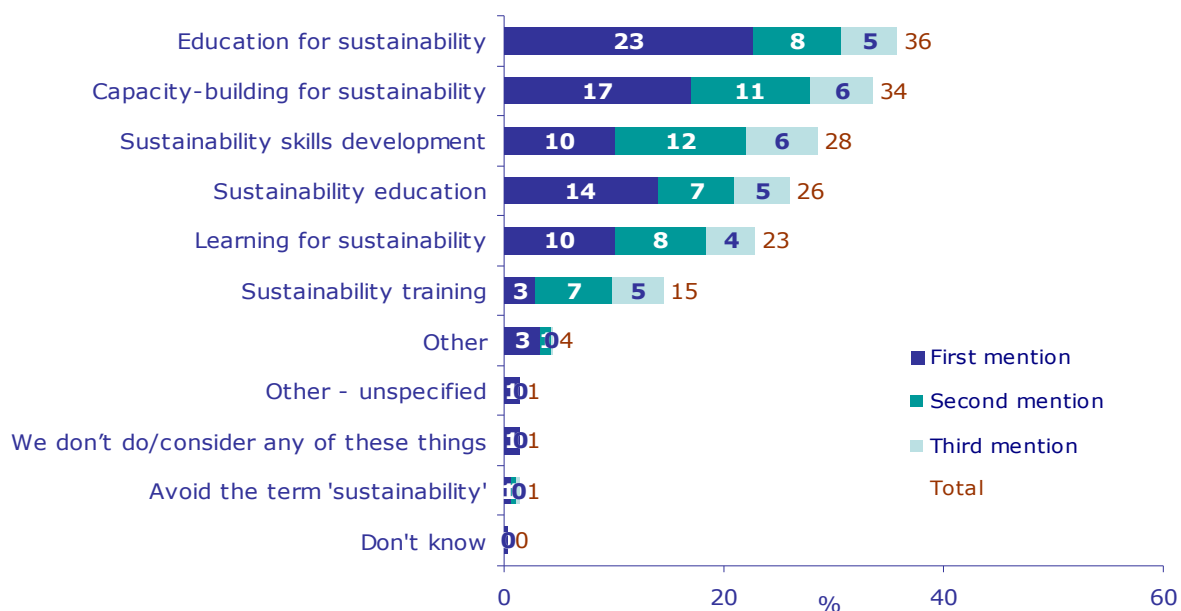
Table 18: Views on “Sustainability education/engagement is becoming a more important part of the work or operations of my organisation”: significant differences across the sample profile

	Strongly agree %	Agree %	Not Sure %	Disagree %	Strongly disagree %
Industry sector (n=294)					
State government	28	48	10	10	5
Local government	17	59	13	8	2
Business and industry	43	50	3	3	0
Education	32	53	8	8	0
Community	41	49	3	4	3
TOTAL	30	53	8	7	2
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.					
Segment shaded LIGHT GREEN is significantly less likely.					

Preferred terms for sustainability education and engagement activities

Participants were asked to indicate which term or terms best described sustainability education and engagement activities for their sector for the future. They were able to rank up to three in order of preference, with one being the most preferred (Figure 29).

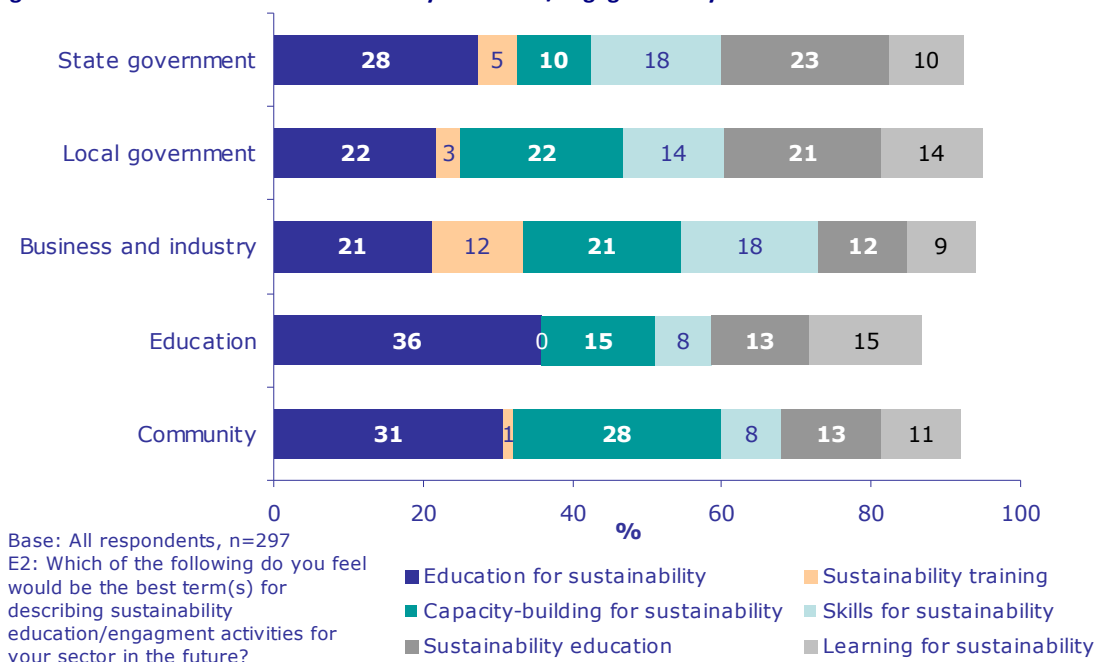
Figure 29: Best term(s) to describe sustainability education and engagement in participants’ sector



Base: All respondents, n=297
 E2. Which of the following do you feel would be the best term(s) for describing sustainability education/engagement activities for your sector in the future?

Overall, *education for sustainability* was the preferred description of education or engagement, with almost a quarter (23%) of participants ranking it as their first choice and 36% in their top three. *Capacity-building for sustainability* was the second most preferred option, with 17% ranking it their most preferred option, and 34% in their top three, followed by *sustainability skills development* and *sustainability education*.

Figure 30: Preferred term for sustainability education/engagement by sector



Note that responses 'we don't do/consider any of those things', 'other' and 'don't know' are not shown on the chart.

No significant differences were found across the sample profile based on an analysis of preferred responses, however Figure 30 shows a breakdown of descriptions preferred by sector. *Education for sustainability* is liked by all sectors, particularly the education sector. However, the second ranked preference did differ between sectors. *Sustainability education* was the second most preferred option with those in state government (23%), whereas in all other sectors it was *capacity-building for sustainability*. *Sustainability education* was the third most preferred option for all groups other than business and state government, where *skills for sustainability* was third most preferred.

Learning for Sustainability environmental education plans

Awareness

Of the 299 participants asked whether they were aware of the NSW Government's Learning for Sustainability environmental education plans (2002-06 and 2007-10) prior to completing the survey, 65% indicated that they were. While no significant differences were found in awareness of the plans between different sectors, awareness was highest among those in the education sector (77% aware) and lowest among those in the business sector (45% aware).

Table 19 shows significant differences in awareness of the plans across the sample profile. Awareness is significantly higher among those for whom sustainability makes up more than 80% of their job (72%), those with 6 to 12 years experience in their sector (78%) and those who are members of sustainability education organisations (86%).

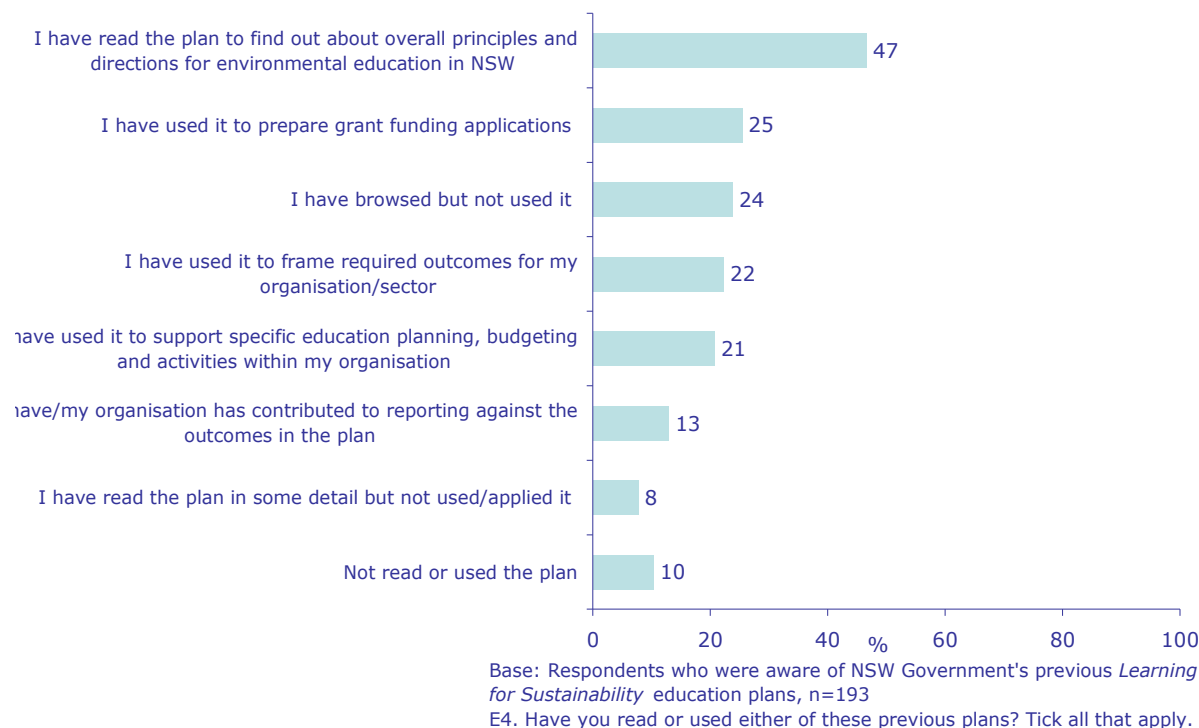
Table 19: Awareness of Learning for Sustainability plans: significant differences across the sample profile

	Aware %	Not aware %
Time in role spent on sustainability (n=299)		
Over 80%	72	28
51-80%	68	32
26-50%	57	43
25% or less	55	45
Not part of my job	14	86
TOTAL	65	35
Time in industry (n=231)		
Less than five years	56	44
6 to 12 years	78	22
More than 12 years	71	29
TOTAL	68	32
Membership of networks (n=231)		
Member of sustainability education organisation	86	14
Member of other organisations	57	43
No memberships	54	46
TOTAL	64	36
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.		
Segment shaded LIGHT GREEN is significantly less likely.		

Use

Figure 31 indicates how the plan has been used by those aware of it prior to completing the survey. Many participants had used it for several purposes. Almost half (47%) reported reading the plan *to find out the overall principles and direction for environmental education in NSW*. A quarter (25%) had used the plan *to prepare funding applications*, 22% had used it *to frame required outcomes for their organisation or sector*, and 21% had used it *to support education planning or budgeting*.

Figure 31: Use of the NSW Government Learning for Sustainability environmental education plans



Despite this, only 13% of participants stated that they had contributed to reporting against the outcomes in the plan.

In total, 32% had read or browsed the plan but not used it, and 10% had not read it at all.

Table 27 shows significant differences across the sample profile with regard to use of LfS plans. Those who were members of sustainability education networks were significantly more likely to have used the plan in a number of ways. They were also more likely to have contributed to reporting against the outcomes of the plan (24%).

Those who had worked in their industry for less than five years were more likely than others to have browsed but not used the plans (37%) and less likely to have contributed to reporting against the plans (7%). Meanwhile, those with more than 12 years' experience were more likely to have contributed to reporting against the plans (34%).

Table 20: Use of Learning for Sustainability Plans: significant differences across the sample profile

	Not read or used the plan	Browsed but not used it	Read the plan in some detail but not used/applied it	Read to plan to find out about overall principles and directions for environmental education in NSW	Used it to frame required outcomes for organisation/sector	Used it to prepare grant funding applications	Used it to support specific education planning, budgeting and activities within organisation	Has contributed to reporting against the outcomes in the plan	Other
	%	%	%	%	%	%	%	%	%
Membership of networks (n=185-287)									
Member of sustainability education organisation	7	24	6	54	34	36	33	24	0
Member of other organisations	13	25	10	44	10	13	6	2	1
No memberships	13	21	10	42	19	27	21	12	0
TOTAL	11	24	8	48	22	25	21	13	0
Time in industry (n=157-231)									
Less than five years	11	37	7	37	15	20	7	7	0
6 to 12 years	9	19	10	59	21	34	21	16	0
More than 12 years	11	13	6	49	34	23	34	19	1
TOTAL	10	22	8	49	24	26	21	14	0
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.									
Segment shaded LIGHT GREEN is significantly less likely.									

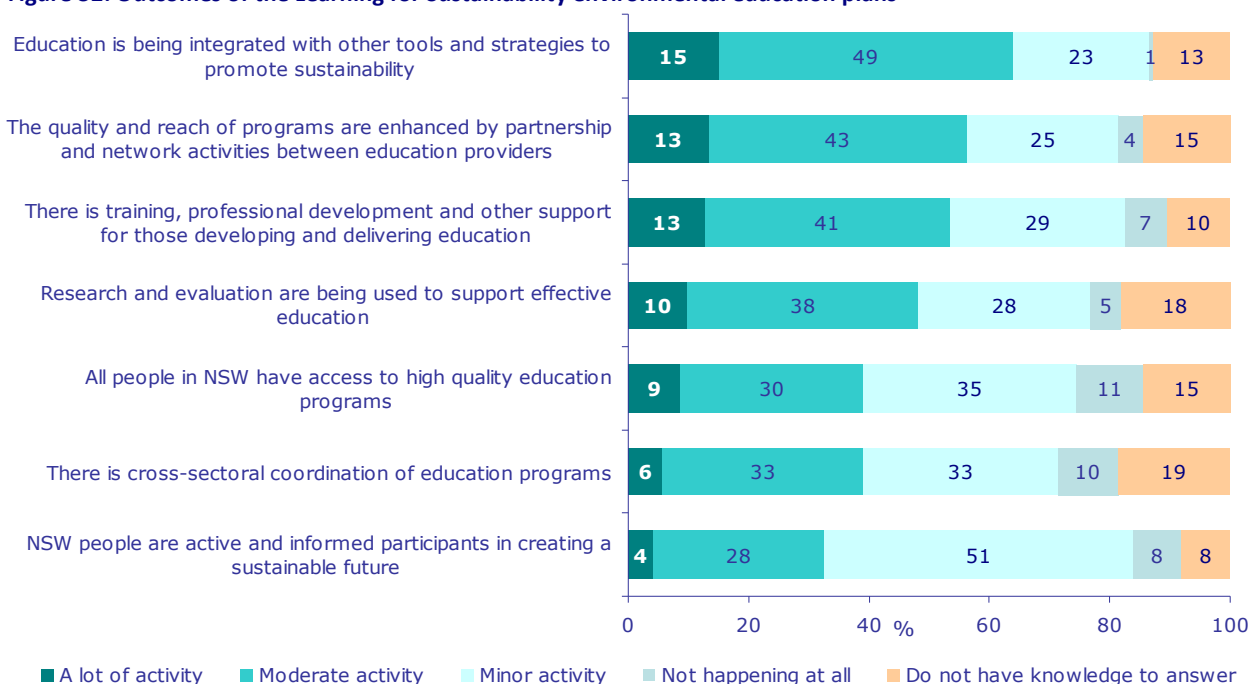
Plan outcomes

Assessing achievement of stated outcomes

Survey participants were given the option to answer further questions about the outcomes of the Learning for Sustainability plans and 172 elected to answer these questions.

To assess progress achieved by the plan, they were asked to indicate the extent to which they thought the desired outcomes of the plans in sustainability education are being met in their sector.

Figure 32: Outcomes of the Learning for Sustainability environmental education plans



Base: Respondents who agreed to answer questions about LfS Plans, n=172

E6. Please indicate the extent to which you think each is currently happening in sustainability education in your sector

Nearly two-thirds of participants (64%) believe there has been either *a lot of* or *moderate* activity in relation to education being integrated with other tools and strategies to promote sustainability, with only 1% indicating they believe this is *not happening at all*.

More than half believe either *a lot* or *moderate* activity has taken place in relation to partnerships and network activity enhancing the quality and reach of programs (56%) and that there is training, professional development and other support for those developing and delivering education (54%). Almost half (48%) thought that research and evaluation were being used to at least a *moderate* extent to support effective education (despite only 26% of total participants indicating that their organisation conducts formal evaluation of programs).

There was less agreement that cross-sectoral coordination of education programs was occurring (39% indicated *a lot* or *moderate* activity).

There was also less agreement that NSW people are active and informed participants in creating a sustainable future, and more than half (59%) thought there had been only *minor activity* to this end, or it was *not happening at all*.

Significant differences were found across the sample profile in regard to perceived activity on cross-sectoral coordination and quality and reach of programs (Tables 28 and 29). No significant differences were found for other goals.

Table 21: Perceived activity on cross-sectoral coordination of education programs: significant differences across the sample profile

	Not happening at all	Minor/only a little activity	Moderate level of activity	A lot of strong activity	Do not have sufficient knowledge to answer
	%	%	%	%	%
Industry sector (n=172)					
State government	17	48	17	9	9
Local government	4	31	41	4	20
Business and industry	22	33	17	6	22
Education	11	43	41	5	0
Community	7	16	33	7	37
TOTAL	10	33	33	6	19
Membership of networks (n=170)					
Member of sustainability education organisation	9	34	41	5	10
Member of other organisations	6	30	25	7	31
No memberships	16	36	36	4	9
TOTAL	9	33	34	6	18
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.					
Segment shaded LIGHT GREEN is significantly less likely.					

A significantly higher proportion of participants in the community sector (37%) and members of other organisations (31%) indicated that they had *insufficient knowledge* to answer with regard to perceived activity on cross-sectoral coordination of education programs.

Table 22: Perceived activity on quality and reach of programs being enhanced by partnership and network activities: significant differences across the sample profile

	Not happening at all	Minor/only a little activity	Moderate level of activity	A lot of strong activity	Do not have sufficient knowledge to answer
	%	%	%	%	%
Industry sector (n=172)					
State government	9	43	26	13	9
Local government	0	22	55	14	10
Business and industry	17	28	39	6	11
Education	5	22	54	14	5
Community	0	21	30	16	33
TOTAL	4	25	43	13	15
Education/sustainability sector (n=137)					
Sustainability initiatives in general	0	24	40	16	20
Sustainability or environmental education	3	22	50	14	11
Education/engagement generally	33	67	0	0	0
TOTAL	3	23	47	14	12
Gender (n=170)					
Male	5	38	30	17	11
Female	3	17	52	12	16
TOTAL	4	25	44	14	14
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.					
Segment shaded LIGHT GREEN is significantly less likely.					

A significantly higher proportion of participants in the community sector (33%) also indicated that they had *insufficient knowledge* to comment on the quality and reach of programs being enhanced by partnership and network activities (Table 22).

Males (38%) were significantly more likely to perceive *minor activity* while females (52%) were more likely to perceive a *moderate* level of activity in enhancing programs through partnerships and networks.

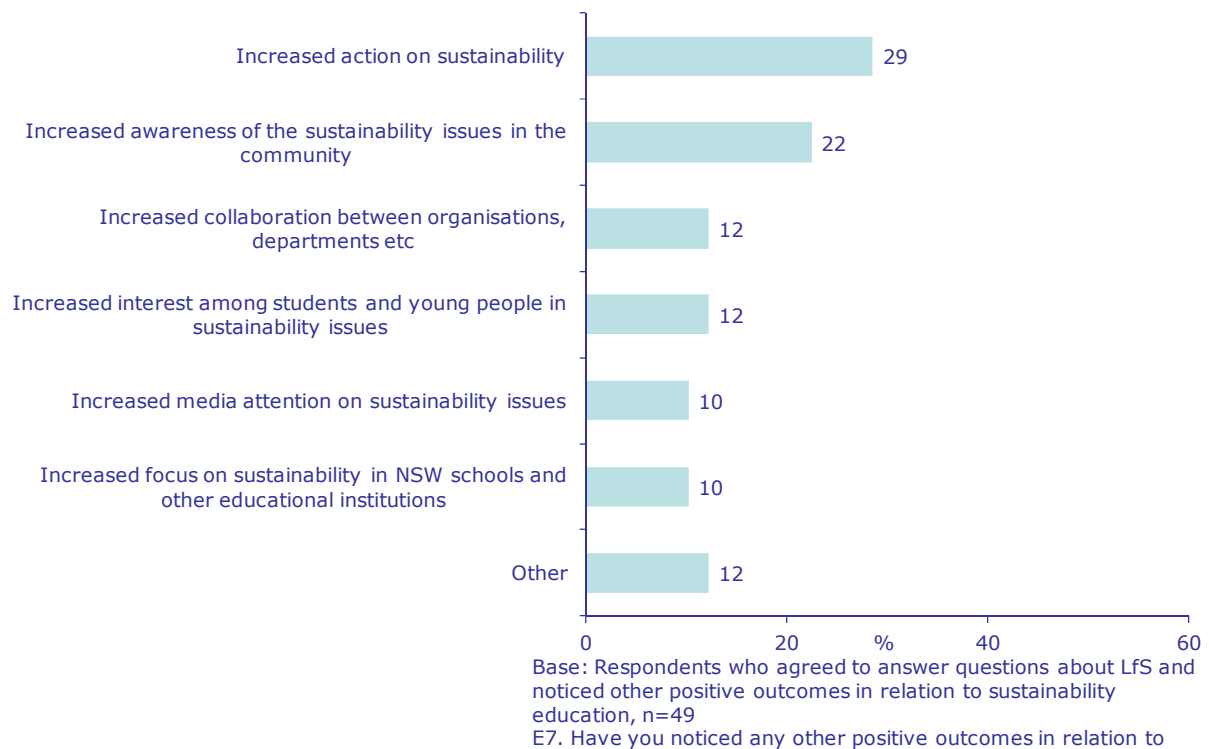
Participants involved in general education/engagement (33%) were significantly more likely to say that partnership and networking was *not happening at all*.

Participants who indicated they did not belong to any association or network (27%) were significantly more likely to perceive that access to high quality education programs for all people in NSW was *not happening at all*.

Other outcomes

Participants were then asked to comment on any other positive outcomes they had noticed in relation to sustainability education either generally or in their sector in recent years. The results are shown in Figure 33.

Figure 33: Other positive outcomes of sustainability education



Of the 49 participants who commented, 29% indicated they had noticed *increased action on sustainability* in recent years, while 22% reported to have noticed *increased awareness of the sustainability issues in the community*. A further 12% indicated that they had noticed *increased collaboration between organisations, departments etc.* and *increased interest among students and young people in sustainability issues* in recent years, while one in ten reported *increased media attention on sustainability issues* and *increased focus in NSW schools and other educational institutions*.

2.5 Improving sustainability education in NSW

A key objective of the survey was to understand how to improve and support sustainability education in NSW. This section presents the findings for questions relating to the importance of the goals of the plan, and strategies to help support better delivery of sustainability education in NSW.

Section snapshot

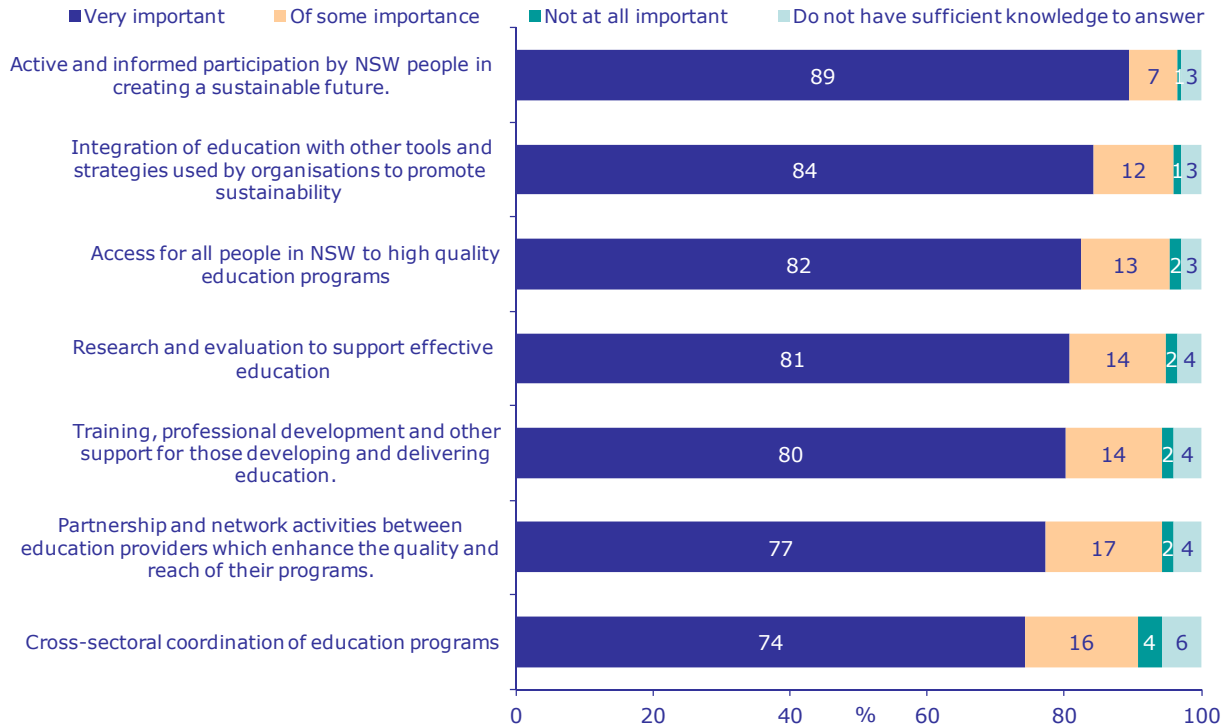
- At least 74% of those who elected to answer questions about the Learning for Sustainability plan outcomes indicated that they perceive each of the goals of the previous plan to be *very important* for any future directions.
- Active and informed participation by the people of NSW in creating a sustainable future was seen as *very important* by the majority of participants (89%).
- While receiving the lowest support overall (74%), cross-sectoral coordination of education programs was more likely to be seen as *very important* by those who spent 80% or more of their time in sustainability education.
- Support mechanisms for educators and education were mentioned by 55% of those who nominated other potential goals, including improvements in standards, certification and regulation/legislation (20%), support for educators (20%), and funding or resource allocation (15%).
- Of four possible system strategies to assist organisations or sectors to better deliver sustainability education or engagement in the future, most support was for *an integrated sustainability policy which includes education/engagement* (79%). There was least support for *a detailed plan describing objectives and outlining outcomes for each sector* (63%).
- When asked about other forms of support, responses in the practical domain focused on *funding* (37%), and *communication/consultation/networks* (18%). In the strategic, system-based domain, 15% mentioned *government support/regulation/legislation* and 13% some sort of *strategic framework or coordination*. *Professional development and training*, which could be seen as both practical and strategic, was mentioned by 13%.

Goals of the Learning for Sustainability plans

Importance of existing goals

Participants were asked to rate the perceived importance of the desired outcomes from the previous Learning for Sustainability plans as inclusions in future directions for sustainability education and engagement in NSW.

Figure 34: Perceived importance of Learning for Sustainability desired outcomes for future direction



Base: Respondents who agreed to answer questions about LfS, n=171
 E8. How important are these characteristics (desired outcomes from the previous Learning for Sustainability plans) to include in future directions for sustainability education/engagement in NSW?

Participants were asked to rate the perceived importance of the desired outcomes from the previous Learning for Sustainability plans as inclusions in future directions for sustainability education and engagement in NSW.

Figure 34 shows a strong endorsement of the existing set of Learning for Sustainability goals, with more than three-quarters of those participating in this section indicating six of the seven goals are *very important*, and the seventh followed closely with just under three-quarters of the participants.

Almost 9 out of 10 (89%) participants indicated that they perceived active and informed participation by NSW people in the creating a sustainable future as *very important*. A further 7% stated that it was *of some importance*.

Integration of education with other tools and strategies used to promote sustainability ranked second, with 84% rating it *very important* and 12% *of some importance*.

Of all the endorsed goals, cross-sectoral coordination of education programs had the lowest response for *very important*, though it was still rated *very important* by 74% and *of some importance* by 16%.

Table 23: Perceived importance of cross-sectoral coordination of education programs: significant differences across the sample profile

	Very important	Of some importance	Not at all important
	%	%	%
Role in organisation (n=161)			
Senior management	59	37	5
Team leader	76	18	6
Teacher/Lecturer	93	0	7
Officer/program coordinator	87	11	1
Other	83	11	6
TOTAL	79	17	4
Time in role spent on sustainability (n=161)			
Over 80%	89	9	1
51-80%	72	21	7
26-50%	71	21	8
25% or less	61	36	4
Not part of my job	100	0	0
TOTAL	79	17	4
Education/sustainability sector (n=128)			
Sustainability initiatives in general	60	30	10
Sustainability or environmental education	87	10	3
Education/engagement generally	100	0	0
TOTAL	83	13	4
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.			
Segment shaded LIGHT GREEN is significantly less likely.			

Table 23 shows that those for whom sustainability makes up less than 25% of their job are significantly more likely to perceive cross-sectoral coordination of education programs to be *of some importance* (36%) and less likely to see it as *very important* (61%). On the other hand, a significantly higher proportion (89%) of those for whom sustainability makes up more than 80% of their job perceive this goal to be *very important*. Those in senior management are significantly less likely to perceive cross-sectoral coordination of education programs to be *very important* (59%) and more likely to think it of *some importance*.

Likewise, Table 24 shows that those for whom sustainability makes up less than 25% of their job (39%), are significantly more likely to perceive partnership and network activities between education providers to be *of some importance* (39%) and less likely to see it as *very important* (57%).

Table 24: Perceived importance of partnership and network activities between education providers which enhance the quality and reach of programs: significant differences across the sample profile

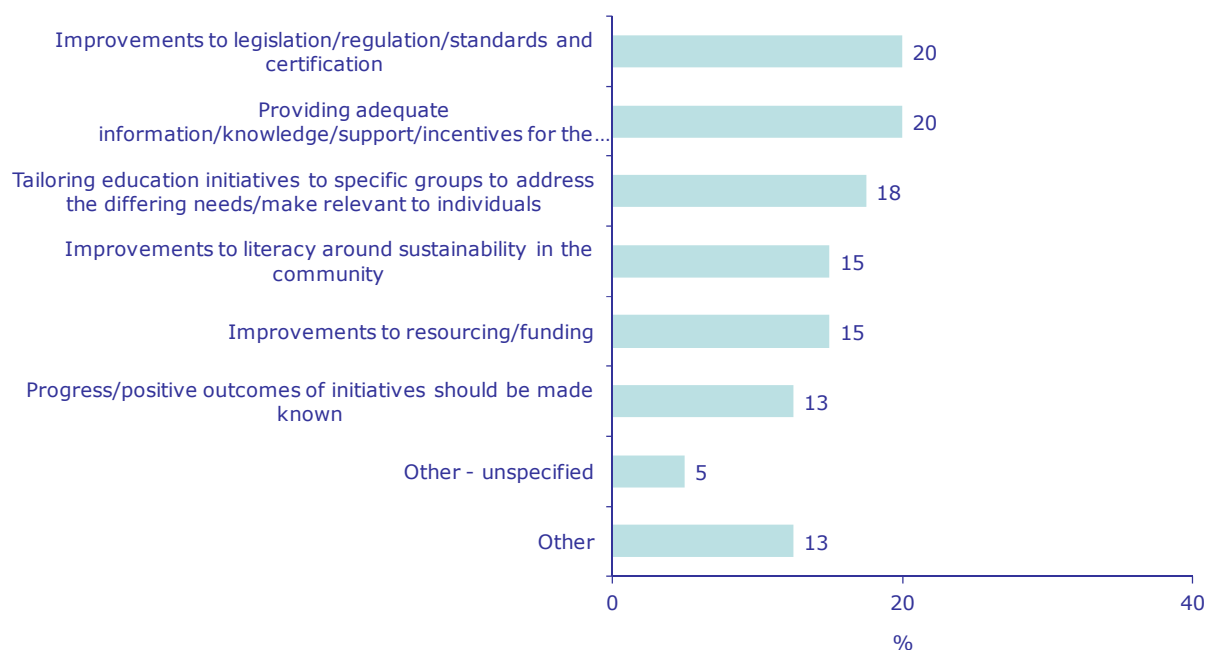
	Very important	Of some importance	Not at all important
	%	%	%
Time in role spent on sustainability (n=165)			
Over 80%	84	14	1
51-80%	90	6	3
26-50%	80	20	0
25% or less	57	39	4
Not part of my job	100	0	0
TOTAL	80	18	2
Segment shaded DARK GREEN is significantly more likely to say this than the total segmented sample.			
Segment shaded LIGHT GREEN is significantly less likely.			

Identification of additional goals

Survey participants were then given the opportunity to suggest additional goals for increasing the extent and quality of sustainability education in NSW. Only 40 participants responded to this open question (Figure 35) 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.

Figure 35: Additional goals for increasing the extent and quality of sustainability education in NSW



Base: Respondents who agreed to answer questions about LFS, n=40
 E9. Are there any other goals or outcomes not covered by this list that are important for increasing the extent and quality of sustainability education in NSW?

Future support for sustainability education and engagement

To assess views on whether another 'plan' or some other kind of systemic support would be more likely to assist organisations or sectors in delivering sustainability education and engagement activities over the next few years, participants were presented with several options and asked whether or not they felt these strategies would help (Figure 36).

All proposed strategies received strong support, with at least 60% supporting each proposition. *An integrated sustainability policy which includes education/engagement components along with other tools to achieve sustainability outcomes* received most support, with 79% of participants indicating this would help organisations better deliver sustainability education and engagement. *A detailed plan* received least support (63%) and had the highest number of people unsure about this goal (14%).

In the state government environment, land and water managers (44%) were significantly more likely to be unsure about the helpfulness of a *group or body to assist organisations with education/engagement to meet their sustainability objectives*. Organisations catering for both internal and external audiences were more likely to indicate that a *group or body to assist organisations with education/engagement to meet their sustainability objectives* would be helpful (87%). Those whose education and engagement programs were for external audiences only were less likely to indicate that this proposed strategy would be helpful (65%).

Participants who indicated they did not belong to any association or network were more likely to be unsure if an integrated sustainability policy would be helpful (13%).

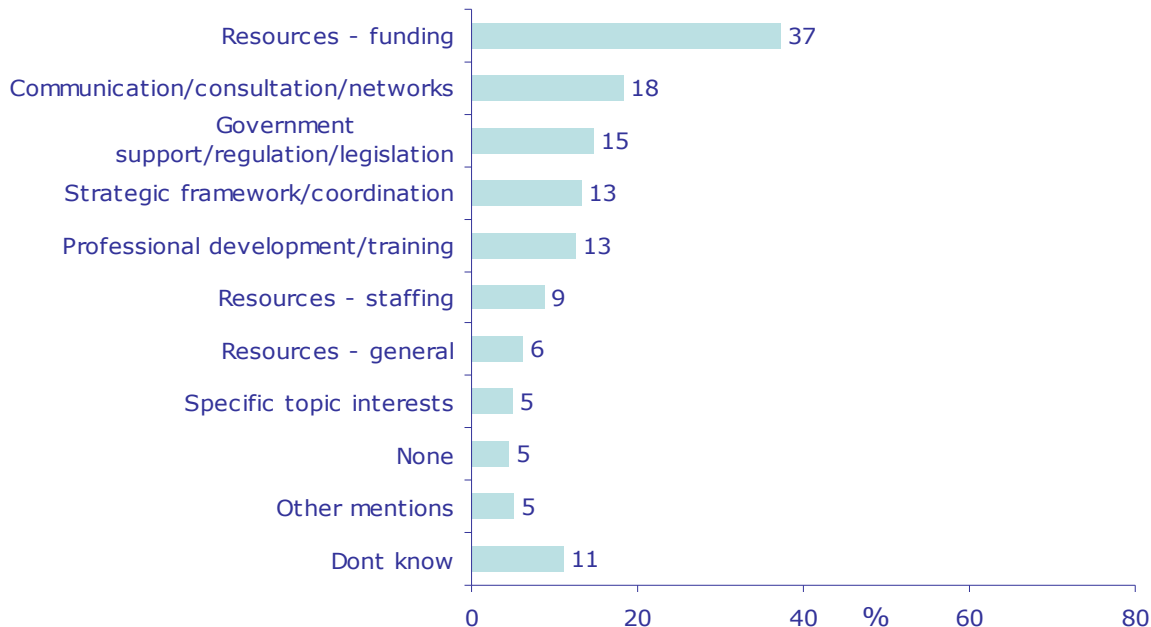
Figure 36: Support for proposed strategies to help organisations and sectors better deliver sustainability education and engagement



Base: All respondents, n=289
 E10. In your view, would any of the following substantially help you or your organisation or sector deliver sustainability education/engagement activities in the next few years?

Participants were then asked to indicate what other support, if any, would help their organisation or sector deliver sustainability education/engagement activities in the next few years (Figure 37).

Figure 37: Other support required to facilitate sustainability education



Base: All respondents, n=288
 E11. What other support, if any, do you believe would help your organisation or sector deliver sustainability education/engagement activities in the next few years?

Responses were spread from the immediate and practical to the more strategic and system based. In the practical domain, more than a third (37%) said that *funding* would be helpful, more than double the next most mentioned mechanism, *communication/consultation/networks* (18%). A further 15% mentioned

resources either in staffing (9%) or in general (6%). In the strategic, system-based domain, 15% mentioned *government support/regulation/legislation* and 13% some sort of *strategic framework or coordination*. *Professional development and training*, which could be seen as both practical and strategic, was mentioned by 13%. Just over 1 in 10 (11%) indicated that they didn't know what other supports would help their organisation or sector deliver sustainability education/ engagement activities.

Participants in the community sector (12%) and members of non-sustainability education associations or networks (11%) were significantly more likely to mention *specific interest topics*. Participants who indicated they belonged to a sustainability education network or association (23%) were significantly more likely to mention *strategic framework/coordination* as something they believe would help their organisation or sector.

Finally, participants were asked if there were any other comments they would like to make about any of the issues covered in the questionnaire. Forty-two (15% of participants) chose to respond. Of these, just under one-fifth (19%) mentioned the need for a consistent, coordinated approach to sustainability education:

"Clear government leadership with open non-political bias and clear scientific information would help dispel polarisation of community views and apathy."

"... are we just talking about another siloed approach which is attempting to solve the problem alone rather than having a whole of government approach?"

"Consistent approach to funding, consistent support ... sell consistent message to community and business."

A further 19% mentioned the importance of funding for the success of sustainability education. Funding was often mentioned in conjunction with specific causes, such as in the examples below:

"Capacity building through empowerment of our community is essential but education and support for projects needs equal funding."

"There is a lot of support and funding available through public education at a state and regional level. It's difficult at the local level because it is not a priority in the school or with staff."

"Make sure funding is adequate and the networking partnerships are not hard to create."

The need for government support in the form of regulation or policy changes was mentioned by 14%, reinforcing the view put forward (among those who opted to answer questions about the Learning for Sustainability plans) in response to the question on additional support to help their organisation or sector deliver sustainability education/engagement activities in the next few years.

Seven per cent mentioned each of: the need for increased action on sustainability education; the importance of continuing sustainability education; and issues with the terminology used to describe sustainability or sustainability education.

SECTOR PROFILES

The sample for this research comprised participants who worked in a range of positions that involved sustainability (from high-level sustainability strategists and middle management to sustainability officers and sustainability educators) in five key sectors: state government, local government, business, formal education and community.

The survey found significant differences in the views, practices and needs of these sectors which are reported individually with each question in Section 2. This section draws together these differences by sector to provide an overview of the key characteristics of those sectors and the areas in which they demonstrated significant differences. Where comparison data is provided, the comparison is to the finding for the whole sample for that question.

3.1 State government

Participants and their organisations

The state government sector provided 15% of participants. Half (50%) of these were employed in *environment, land or water management* roles, reflecting a high level of interest in sustainability in this group. Of the remaining half, 15% worked in *tourism/sports*, 15% in *recreation/cultural activities*, 8% in *primary industry*, 6% each in *legal/judicial/administrative* and *social/community issues*, and 4% in *health*.

Differences in findings

Sustainability generally

In comparison to the survey sample as a whole, those in state government were:

- less likely to state that sustainability meant *quadruple bottom line* (17% compared to 35% of the whole sample)
- more likely to indicate that sustainability is *somewhat important* to internal operations (50% vs 33%)
- more likely to mention *management directives* as a tool for delivering internal sustainability initiatives (59% vs 40%)
- more likely to use *regulation* (59% vs. 25%) and *management directives* (24% vs. 10%) to deliver sustainability initiatives.

Compared to all state government participants overall, environment, land and water managers were:

- more likely to indicate *maintaining the natural environment, ecosystems and biodiversity* as the most important aspect of sustainability (44% compared to 5%)

- more likely to mention *external audiences* as a main focus for sustainability initiatives (85% vs. 52%)
- more likely to indicate that one of the primary audiences for their initiatives was the *community* (72% compared to 28%), and less likely to indicate *staff* in their own organisation (14% compared to 46%)
- more likely to use *price or cost incentives* as a tool for delivering internal sustainability initiatives (54% compared to 12%)
- more likely to *report education/training* (100% compared to 60%) and *price/cost incentives/rewards* (54% compared to 12%) as tools their organisation uses in its sustainability initiatives/programs (externally).

Sustainability education within the organisation

In comparison to the survey sample as a whole, those in state government were:

- less likely to conduct *education, training, skills development, capacity building or engagement activities* (8% did not conduct any of these activities, compared to 2% of the whole sample)
- more likely to mention *international/national and/or state policies, plans, standards* (19% compared to 5%) and *directives/policies from parent organisation* (16% compared to 6%) as reasons their organisation undertakes education/engagement activities as a means of addressing sustainability issues
- more likely to focus on the *protection and conservation of Aboriginal and/or European cultural heritage* (55% compared to 27%), and less likely to focus on *waste management/reduction* (38% compared to 60%)

Compared to all state government participants overall, environment, land and water managers were:

- more likely to report that their education, training, skills development, capacity building and engagement activities were for both *internal* and *external* audiences (85% compared to 38%)
- more likely to use the terms *education* (77% compared to 42%) and *capacity building* (73% compared to 31%) to describe education activities in their organisation or sector
- more likely to indicate that education activities *extensively* address sustainability issues externally (46% compared to 6%)
- more likely to be unsure about the helpfulness of a *group or body to assist organisations with education/engagement to meet their sustainability objectives* (44% compared to 21%).

Sustainability education in NSW

No significant differences were found between those in the state government sector and the whole sample in relation to broader issues of sustainability education.

3.2 Local government

Participants and their organisations

Local government provided almost a third (32%) of the respondents to the survey, indicating a strong level of interest and involvement in sustainability education work in this sector, and a motivation to contribute to improved outcomes.

Over three-quarters of local government respondents were in officer or program co-ordinator roles (76%, compared to 43% of the whole sample). Local government respondents were less likely to be from senior management (11% compared to 24%). As a result, a higher proportion of the respondents from local government were in the 18–34 year age group (35% compared to 24%). Reflecting this strong officer or program level representation, a high proportion of participants in the local government sector report that more than 80% of their work time is spent on sustainability (62% compared to 47%).

Differences in findings

Sustainability generally

In comparison to the survey sample as a whole, those in local government were:

- more likely to associate sustainability with *quadruple bottom line* (50% compared to 35%), and less likely to associate it with *environmental/ecological sustainability* (22% vs 36%)
- more likely to indicate that sustainability is only *somewhat important* (54% compared to 33%) or of *minor importance* (27% compared to 14%) to the internal operations of their organisation, and less likely to say it is *very important* (19% compared to 52%)
- more likely to identify *purchasing and procurement decisions* as an important tool in internal sustainability initiatives (68% compared to 53%)
- more likely to say sustainability is *somewhat important* in the external delivery of services (50% compared to 31%), and less likely to say it is *very important* (39% compared to 61%)
- more likely to identify *infrastructure provision* (65% vs 40%), *regulation* (37% vs 25%) and *price/cost incentives/rewards* (36% vs 24%) as their most important tools in external sustainability work
- more likely to identify the community as their main audience (75% compared to 59%), and less likely to identify students (9% compared to 26%)
- more likely to identify *customer/client/community/student demand* as the main driver behind their sustainability initiatives (18% compared to 9%).

Sustainability education within the organisation

In comparison to the survey sample as a whole, those in local government were:

- less likely to nominate *teaching and/or learning* as a term used to describe education and engagement activities in their sector (18% compared to 35% of the whole sample)
- more likely to say that the extent of their organisation's education, training or engagement activities (generally) was either *moderate* (52%, compared to 37%) or *occasional* (24% compared to 15%), and less likely to say it was *extensive* (2% compared to 21%)

- more likely to say their internal education/engagement activities addressed sustainability outcomes *moderately* (49% vs 31%) or *occasionally* (27% vs 14%), and less likely to say *extensively* (3% vs 20%) or *significantly* (18% vs 30%)
- more likely to say their external education and engagement activities addressed sustainability outcomes *moderately* (42% compared to 26%), and less likely to say *extensively* (16% vs 32%)
- more likely to mention *insufficient leadership, direction and support from executive management* as a main barrier to starting/increasing sustainability education/engagement internally and/or externally (21% vs 13%).
- allocating significantly less weight to *developing capacity for problem analysis and critical thinking* as an education/engagement goal (5% compared to 7% mean weighting)
- more likely to say their organisation's use of education and engagement programs depended on the *availability of external funding, support, expertise or other resources* (18% compared to 7%), as well as *internal capacity and expertise* (18% vs. 8%), and less likely to say *education is their core business* (5% vs. 30%)
- more likely to use a number of the delivery methods for their education/engagement activities: *print information* (81% vs. 68%), *practical workshops* (73% vs. 61%), *mass media communications* (56% vs. 35%) and *events* (63% vs. 53%)
- more likely to focus on *energy efficiency* (76% vs. 65%), *water efficiency* (75% vs. 62%), *waste management/reduction* (83% vs. 60%) and *water pollution and water quality* (53% vs. 40%) in their education/engagement activities
- more likely to say their education/engagement activities had achieved an increase in *staff involvement in sustainability* (12% compared to 5%).

Sustainability education in NSW

In broader issues of sustainability education, those in local government:

- were less likely to *strongly agree* that sustainability education/engagement is becoming a more important part of the work or operations of my organisation (17% vs 30% of the whole sample)
- chose *education for sustainability* (22%), *capacity-building for sustainability* (22%) and *sustainability education* (21%) almost equally as their most preferred terms.

3.3 Community

Participants and their organisations

One in four survey participants (25%) were from the community sector. These participants were evenly spread between NGOs and community groups (14% each). They were significantly more likely to be over 55 years old (44% compared to 25% of the whole sample), to work as team leaders (18% vs 11%), and to report that activities relating to sustainability are not part of their job (10% vs 3%).

Differences in findings

Sustainability generally

In comparison to the survey sample as a whole, those in the community sector were:

- more likely to indicate that sustainability is *very important* to their internal operations (79% vs 52%) and less likely to say it is *somewhat important* (14% vs 33%) or *of minor importance* (6% vs 14%)
- more likely to indicate that sustainability is *very important* externally (85% compared to 61%), and less likely to indicate that it is *somewhat important* (13% compared to 31%)
- more likely to identify the *community* as a primary audience for sustainability initiatives (81% compared to 59%), and less likely to identify *staff in their own organisation* (14% vs 32%)
- more likely to use *motivation, engagement and awareness building activities* (67% compared to 54%) as a main tool in their organisation's sustainability initiatives/programs, and less likely to use *price or cost incentives* (6% compared to 18%), *management directives* (23% compared to 40%) or *purchasing and procurement decisions* (32% compared to 53%)
- less likely to employ *price or cost disincentives* (0% compared to 7%), *regulation* (7% compared to 25%), *price or cost incentives* (8% compared to 24%) and *infrastructure provision* (24% vs 40%)

Sustainability education within the organisation

In comparison to the survey sample as a whole, those in the community sector were:

- less likely to say that the extent of their organisation's education, training or engagement activities (generally) was *moderate* (26% compared to 37% of the whole sample)
- more likely to say their internal education/engagement activities addressed sustainability outcomes *extensively* (39% compared to 20%), and less likely to say they addressed them *moderately* (11% compared to 31%)
- more likely to say their external education and engagement activities addressed sustainability outcomes *extensively* (54% compared to 32%), and less likely to say they addressed them *moderately* (12% compared to 26%)
- more likely to mention *organisational understanding of the contribution such activities can make to sustainability* (49% compared to 26%) as reasons their organisation undertakes education/engagement activities as a means of addressing sustainability issues
- more likely to mention *external funding and resources issues* as one of the main barriers to starting or increasing sustainability education/engagement internally and/or externally at their organisation (49% compared to 30%)
- more likely to use the *internet and social media* (57% compared to 44%) and *mentoring* (32% compared to 19%) to deliver their organisation's sustainability education/engagement activities
- more likely to focus on *community development* (54% compared to 38%), and less likely to focus on *green procurement* (14% compared to 30%), *water efficiency* (32% vs. 62%), *energy efficiency* (41% vs 64%) and *waste management/reduction* (42% vs 60%) in their engagement activities
- allocating significantly less weight to *developing the skills needed for sustainable practices in the workplace or daily life as an education/engagement goal* (13% compared to 19% mean weighting)

Sustainability education in NSW

In broader issues of sustainability education, those in the community sector:

- chose *education for sustainability* (31%) and *capacity-building for sustainability* (28%) as their preferred terms
- were more likely to indicate that they had *insufficient knowledge* to answer with regard to perceived activity on cross-sectoral coordination of education programs (37% compared to 19%)

- were more likely to indicate that they had *insufficient knowledge* to comment on the quality and reach of programs being enhanced by partnership and network activities (33% compared to 15%).

3.4 Formal education

Participants and their organisations

The public education sector provided 15% of the overall sample, with a further 3% from private education. These participants were more likely than those in other sectors to work as teachers/lecturers (41% compared to 9% of the whole sample).

Differences in findings

Sustainability generally

In comparison to the survey sample as a whole, those in formal education were:

- more likely to identify *students* (71% compared to 26% of the whole sample) and *staff* in their own organisation as primary audiences for sustainability initiatives (46% compared to 32%), and less likely to identify the *community* (24% vs 59%)
- less likely to employ *regulation* (3% compared to 25%) and *motivation, engagement and awareness-building activities* (51% vs 66%).

Sustainability education within the organisation

In comparison to the survey sample as a whole, those in formal education were:

- more likely to use the terms *teaching and/or learning* to describe education and engagement activities in their sector (70% compared to 35% of the whole sample)
- more likely to say that the extent of their organisation's education, training or engagement activities (generally) was *extensive* (48% compared to 21%)
- more likely to say their external education/engagement activities addressed sustainability outcomes *occasionally* (19% vs 8%), and less likely to say they addressed them *extensively* (16% vs 32%)
- more likely to say education is their organisation's core business (77% vs 30%), and less likely to nominate *organisational understanding of the contribution such activities can make to sustainability* (6% vs 26%) as reasons their organisation undertakes education/engagement activities as a means of addressing sustainability issues
- more likely to mention *lack of priority for sustainability amongst other education priorities* as one of the main barriers to starting or increasing sustainability education/engagement internally and/or externally at their organisation (30% compared to 10%)
- more likely to develop or deliver *formal environmental or sustainability courses* (64% vs 33%) and develop or deliver formal education courses where sustainability is integrated with other subject material (58% vs 27%)
- less likely to use *mass media communications* (14% vs. 35%), *practical workshops* (46% vs. 61%) and *print information* (49% vs. 68%) as delivery methods for their education/engagement activities
- allocating significantly more weight to *developing capacity for critical thinking and problem analysis* as an education/engagement goal (13% compared to 7% mean weighting).

Sustainability education in NSW

No significant differences were found between those in the education sector and the whole sample in relation to broader issues of sustainability education.

3.5 Business

Participants and their organisations

Just over 1 in 10 (11%) of participants were from business and industry. More of these were in senior management positions than in other sectors (51% compared to 24% of the whole sample). A quarter (26%) worked in roles other than senior management, team leader, teacher/lecturer and office/program coordinator. This indicates that position descriptions of those in business dealing with sustainability education may be different to those in the government and education sectors. Business and industry was the only sector in which the majority of participants was male (71%).

Differences in findings

Sustainability generally

In comparison to the survey sample as a whole, those in business were:

- more likely to indicate that primary audiences for sustainability initiatives are *individual customers/clients* (53% compared to 12% of the whole sample) and *other companies/organisations* (29% compared to 13%), and less likely to indicate *students* (5% compared to 26%) and *community* (26% compared to 59%)
- less likely to use *education/training* as a way to deliver internal sustainability (44% compared to 65%)
- more likely to employ *strategies directed at organisation culture and value* (49% compared to 31%).

Sustainability education within the organisation

In comparison to the survey sample as a whole, those in business were:

- more likely to conduct education, training, skills development, capacity building or engagement activities for *staff only* (23% compared to 9% of the whole sample)
- more likely to say their internal education/engagement activities addressed sustainability outcomes *extensively* (41% compared to 20%)
- more likely to say their external education and engagement activities addressed sustainability outcomes *extensively* (57% compared to 32%)
- more likely to mention *evaluation and evidence issues* as one of the main barriers to starting or increasing sustainability education/engagement internally and/or externally at their organisation (12% compared to 3%)
- less likely to focus on *biodiversity/wildlife protection and conservation* (26% compared to 60%).

Sustainability education in NSW

In broader issues of sustainability education, those in business chose *education for sustainability* (21%) and *capacity-building for sustainability* (21%) almost equally as their most preferred terms, followed by *skills for sustainability* (18%).

CONCLUSIONS

This section covers the conclusions drawn from the research findings, and some key ideas which flow from these.

4.1 Participants and their involvement in sustainability education

The survey reached a broad-based target audience engaged in sustainability education, with three quarters of participants (76%) working directly in sustainability education initiatives across government, business and industry, education and community sectors.

Based on the findings in this survey, **the local government and community sectors appear more engaged with LfS and sustainability education than other sectors**. With 62% of participants in the local government sector reporting that more than 80% of their work time is spent on sustainability (compared to 47% across the whole sample), sustainability may be more directly addressed in these sectors.

In addition, these sectors provided the majority of the sample (57% between them), indicating that there are more people in those sectors willing to take the time to respond to a survey focusing on sustainability education. This may be seen as circumstantial evidence that participants in these sectors are more engaged, as factors such as survey distribution and number of people employed in sectors may have increased response rates from those sectors.

However, despite the level of sustainability education activity in local government, **local government participants rated their organisations' placing of importance on sustainability lower than those from other sectors**; rather than *very important*, they were more likely to indicate that sustainability, was *somewhat important* (54%) or of *minor importance* (27%) to the internal operations of their organisation, and *somewhat important* (50%) in external activities. In considering this apparently contradictory result, it should be noted that more participants from local government were younger (35% in the 18–34 year age group) and over three-quarters (76%) were in program delivery roles (officer or coordinator), that is in large organisations with multiple, competing operational priorities, thus they may have less ability to influence organisational change.

There are high levels of engagement in sustainability education among those who work in state government agencies that have an environmental, land and water management focus.

While the proportion of participants provided by state government was much smaller than local government (15% compared to 32%), this highly engaged group in state environment, land and water management agencies emphasised education activities, particularly with external audiences.

Awareness of the NSW environmental education plan Learning for Sustainability was reasonably high among those in the target audience, and there is a **positive relationship between awareness of the plan and the amount of work time spent on sustainability**. Over two-thirds (65%) of participants indicated that they were aware of the plan, while among those for whom sustainability makes up over 80% of their work, 72% of those who completed this part of the survey were aware of the plan.

Membership of sustainability education networks is also positively associated with awareness of the plan. Eighty-six per cent of those who were members of sustainability education networks were aware of the plan, indicating strong uptake among those most involved in sustainability education. Those in the community sector were more likely to say they did not have sufficient knowledge to answer questions about the goals of the plan. This is despite them placing more importance on sustainability, being more likely to be members of sustainability education networks and having similar levels of knowledge of the plan to other sectors. Community sector activity may be sufficiently fragmented to make an overview difficult.

The age and experience level of people working in sustainability education varies substantially. A third of participants reported having worked in the sector for less than five years, while another third had worked in it for more than 12 years. Age was relatively evenly distributed, with around a quarter of participants in each of the four age categories (18–34, 35–44, 45–54 and 55+).

Positional involvement with sustainability and sustainability education varies by sector. As already noted, in local government involvement is at officer and program coordinator level, while in education it is individual teachers and lecturers, and in business, it is more likely to be senior management in those organisations with sufficient interest in sustainability issues to respond to the survey. The level of engagement by senior management is an important driver for (or barrier to) increasing sustainability activities; across the whole sample, insufficient leadership or support from executive management was identified as the most significant barrier after funding issues.

The presence of internal capacity and expertise ranked highly as a driver for using education and engagement to address sustainability issues, indicating that internal capacity building has significant potential to drive sustainability initiatives and outcomes.

Implications

Capacity building and development of internal education/engagement skills will be critical to effective program design and delivery. The variation in levels of experience and degree of engagement across sectors indicates that there is a need for a tailored approach to communicating with individuals within organisations and building their capacity. Given the variation in sector profiles and needs illustrated by those profiles, a clearly articulated support and capacity-building framework for each sector, building knowledge and skills based on the context and needs of those in that sector will be of most value.

Organisations should be encouraged to build internal skills in sustainability education where possible, as this appears to be a key driver for around a third of organisations at present. Local government appears to be particularly driven by internal staff dedicated to education, and while it may be harder for other sectors to develop similar banks of skills, this should be encouraged. Building internal skills will also help to overcome several key barriers to undertaking sustainability education with organisations, namely: lack of leadership; lack of priority (both for sustainability and education); and lack of understanding of the benefits of education.

Involving and engaging the community sector will provide a particular challenge, should LfS in NSW retain the goals of enhanced cross-sectoral coordination and increased active and informed participation from NSW people. The community sector displays positive attitudes towards the importance of sustainability and 80% of those within the sector consider the community to be a major audience for them, so that this sector is well placed to involve 'NSW people'.

4.2 General engagement with sustainability

Ecological sustainability is a key element in concepts of sustainability for those involved in sustainability education. Most participants in the survey (92%) stated that sustainability in their organisation incorporated environmental or ecological sustainability; either solely or through triple or quadruple bottom line reporting. **Sustainability is seen as an important factor in business decision-making and processes by a large proportion of participants, although older participants and those in more senior roles tend to place more importance on it than others.** Over half of respondents (52%) rated sustainability in internal operations as very important, with over 60% rating sustainability in external operations very important. Senior managers and older, more experienced members of staff tend to rate sustainability in internal operations as more important than younger participants do. This may suggest that sustainability is led by those in more senior positions. However, it may also mean that those in senior positions, who may have more responsibility for ensuring their organisations incorporate sustainability, perceive this favourably, while those in more junior positions are either less aware of, or are more critical of, their organisation's performance in incorporating sustainability. The research also shows that those who are less involved in sustainability tend to be less likely to rate sustainability in their organisation as highly important.

Implication

Initiatives to boost understanding more broadly of the value of sustainability in organisations will be a key underpinning to advancing sustainability education, engagement and outcomes.

Drivers of sustainability initiatives

The key driver for organisations becoming involved in sustainability initiatives appears to be a general concern for the environment, rather than the direct influence of cost/benefit factors on the organisations. The most commonly mentioned reason (by almost half as one of the top three reasons) for undertaking initiatives was that sustainability is part of the organisations' core values. Concern about the environment, ecosystems *and* biodiversity and concern about health, wellbeing, environmental quality and quality of life were also nominated by over a third. More specific issues such as concern about climate change, future resource availability or environmental crisis events such as extreme weather were highlighted by far fewer participants. It is likely, however, that for many participants, the more specific issues such as climate change and resource availability feed into the higher-ranked general concern about the environment and/or wellbeing.

Demand for sustainability initiatives from clients, customers, the community or students ranked relatively highly as a driver, nominated by more than a quarter (26%), but staff interest was less of a driver (13%).

System drivers, such as alignment with state plans, the need to comply with regulatory requirements and the availability of funding and support, were not primary drivers but acted as 'back-up' reasons, particularly alignment with state or national plans (total of 21% across top three reasons).

Direct financial or commercial drivers for sustainability initiatives rank lower. In total, 12% nominated cost savings and 4% nominated both the desire to gain a competitive advantage and risk management.

Implications

- Values associated with environmental concern underlie considerable sustainability activity, so that enabling organisations to understand their role in environmental protection and long-term sustainability is a key area for development.
- Demand for sustainability initiatives is likely to increase as corporate social responsibility and triple and quadruple bottom line paradigms become more widely accepted in the commercial and public sectors. There are opportunities to increase sustainability activities by encouraging uptake of these paradigms.

Audiences and tools for sustainability initiatives

The community is clearly the main audience for sustainability initiatives, particularly for local government and community groups. Overall, almost 6 in 10 participants mentioned community as a key audience, a strong reflection of the high proportion of participants from the community and local government sectors.

Students are a key audience for formal education with over 70% of those in the sector mentioning students, compared to just 26% for the sample as a whole.

There is a relatively strong focus on internal initiatives. Over a third said staff in their own organisation were a key audience, rising to 46% in the education sector.

Both internally and externally, education and other strategies that create buy-in to sustainability among the target audience are the key tools used by a large proportion of participating organisations. Education/training was used by 62% in internal initiatives and 82% in external initiatives. In addition, motivation, engagement and awareness-building activities (54% internally, 66% externally) and strategies directed at organisational culture and values (52% internally, 31% externally) were often mentioned. This indicates that the desire to change knowledge, attitudes and behaviour among target audiences is a high priority in a large number of sustainability initiatives and that organisations are recognising the role of both their own staff and others in the community, and using education as a tool to effect behaviour change with both these groups.

Infrastructure provision and purchasing decisions are also important initiatives in the promotion of sustainability, particularly within participants' own organisations. More than half mentioned use of each of these tools in internal sustainability initiatives. Procurement decisions were especially used by local government (68% internally).

Market-based initiatives (price incentives and disincentives) are less popular strategies. Price incentives was, however, nominated by 24% for external audiences, with local government (36%) and state government (33%) more likely to use these, particularly environmental, land or water agencies.

Among highly engaged managers, there is a clear recognition of the need to employ multiple forms of initiative to promote sustainable behaviour. Those who reported that their work involved sustainability more than 80% of the time were more likely to report the use of several tools (price incentives, management directives and motivation, engagement and awareness-building activities) and also reported training both internally and externally significantly more often than other groups.

Implications

- While sustainability tools vary substantially by sector, education tools are the most widely and consistently used. Building capacity in education and engagement (building appropriate skills and resources) within each sector according to the needs of the sector is a key strategic route to developing and enhancing sustainability initiatives.
- The development of frameworks for the incorporation of education with other tools may also continue to increase the extent to which education is used in initiatives.

4.3 Engagement in sustainability education

Education: its extent and role

Education or training in one form or another is almost universally employed by organisations across the sector. Only 2% of participants reported that education or training did not take place at all in, or by, their organisation, and 69% reported that it took place both internally and externally. Business and industry was more likely than other sectors to report training internal staff only. Most reported the use of education as part of their organisations' programs or services. **The extent of integration of education is, however, quite varied.** While 37% of all participants stated that the extent of education in their organisation was moderate (i.e., they include education as part of most programs or services), relatively large proportions reported significant (28%) or extensive (21%) education or engagement activity.

The local government sector uses formal education less extensively than other sectors. Local government participants were more likely to say that education use was only moderate or occasional and were less likely to say they developed and delivery of courses/formal education that either focused on sustainability or integrated it into other subjects. However, practical workshops (73%) are used more in local government, as are events (63%), activities more geared to their focus on the community audience.

Almost all participants agreed that education/engagement is an essential tool for developing sustainable communities (99% total, 79% strongly), and 81% agreed that sustainability education/engagement is becoming a more important part of the work or operations of their organisation.

Integration of sustainability

There was a relatively even split between extensively, significantly and moderately in the extent to which participants' organisations education and engagement activities addressed sustainability issues or outcomes, but overall **there was more emphasis on sustainability in external education/engagement activities.** Internally, a majority (61%) reported that sustainability was addressed either significantly or moderately, with fewer (20%) saying that it was addressed extensively, (i.e., that it was the main focus of their education and engagement activities). Externally, almost a third (32%) said their education activities address sustainability extensively, 58% significantly or moderately.

Local government participants report less focus on sustainability in education activities than other sectors. Participants in local government reported sustainability being addressed in education moderately often (49% internally, 42% externally) or occasionally (27% internally) in higher proportions than other sectors. This finding seems surprising, given that local government participants were more likely to report that over 80% of their work time is spent on sustainability (62% compared to 47% for all sectors). It may be that local government education programs do not focus heavily on sustainability, or that participants in this sector see more scope for incorporation of sustainability (as they define it: 50% said quadruple bottom line) in their organisation's education activities.

Those in the business and industry and community sectors say their organisations address sustainability more extensively than other sectors. Business and industry participants were more likely to say their education addressed sustainability significantly (41% internally, 57% externally). In the community sector, the proportions were 39% internally and 54% externally. This finding may be influenced by the definition of sustainability prevalent in each sector. Both the business and industry and community sectors tended to favour the narrower ecological definition of sustainability compared to the rest of the sample, although not significantly so.

Implications

- Definitions of 'sustainability' may be influencing the extent to which participants and organisations consider they are incorporating sustainability into their education and engagement activities. Those with broader definitions, for example as quadruple bottom line, have a more difficult task to cover this extensively in their work.
- While almost all organisations report a culture of education to some degree, many could move towards more extensive incorporation of sustainability education into their operations.

Language

The terms 'education' and 'engagement' are used by the majority of organisations to refer to any education/engagement activities, both chosen by 65%. Education was preferred by 78% of those in the education sector and 71% in local government, whereas engagement was preferred by those in the state government (69%), business and industry (56%) and community (76%) sectors. Across the sectors, recognition of both terms was above 50%, with the exception of business and industry, where education was mentioned by 46%.

Recognition of both 'capacity-building' and 'skills development' was above 40% across the whole sample, although in all sectors either 'education' or 'engagement' was preferred.

For the best term for sustainability education and engagement activities in the future, no term supported by a majority of participants, even with three preferences. **Education for sustainability is the most popular,** nominated by almost a quarter of participants (23%) as their first preference and a further 13% ranking it second or third. **Capacity-building for sustainability was the next preference,** with 17% preferring and another 17% ranking it second or third.

Implications

- Language is sector specific for both education and engagement activities generally, and for sustainability education specifically. In the general sense, 'education' and 'engagement' are both used widely so that communications around sustainability education and engagement should continue to

use both terms, as they are highly prevalent and recognised across all sectors. This is particularly important in cases where communications are intended to reach audiences in multiple sectors.

- In the education sector, 'education' is the preferred term, and as such should be used for communications intended solely for that sector where engagement is not as relevant.
- In the more specific application to sustainability, there was less consensus. Of the terms tested, 'education for sustainability' is preferred as a banner under which to promote any future overarching activities.

Goals of sustainability education

Conceptualising the cognitive requirements of behaviour change on a continuum from knowledge of the issue through attitudes, skills and finally behaviour, **the focus placed on each of the key elements of behaviour change (knowledge, attitudes, skills and behaviour) is relatively evenly spread, and a high proportion of participants indicate some attention to all four.** This may imply that organisations are currently planning a long-term growth strategy, where audience members are moved progressively along the behaviour change spectrum from knowledge of sustainability issues to behaviour.

However, **most organisations' activities focus chiefly on building knowledge and awareness in their sustainability education initiatives.** For almost all participants (95%) building knowledge and awareness was a goal of their initiatives, with a mean weight of 28%. Less weight was given to goals of directly influencing behaviour (20%), developing skills for sustainable practices (19%), and developing positive attitudes (16%), although at least 80% indicated that each was a goal in their initiatives.

Despite their potential to play a key role in creating sustainable communities, developing capacity for problem-solving and discussing and reflecting on values in regard to sustainability were given relatively low weight compared to other education activities. In the education sector developing capacity for problem-solving and critical thinking is given more focus than in other sectors. However, over half of all participants gave at least some weight to both developing capacity for problem-solving and critical thinking (53%) and discussing and reflecting on values (64%). It would thus seem that these two goals are recognised by many in sustainability work, but they are either seen as less important to incorporate directly into programs, or program managers are less able to identify appropriate strategies to do this. Yet both goals are crucial to the further development of sustainability practices in that they provide a platform for higher-level thinking and promote the ability to innovate through the development and sharing of ideas.

Implications

- Achieving social or behavioural change requires a complex set of factors to be considered and addressed in education or engagement programs. This research indicates that there is a heavy reliance on knowledge building activities to achieve this in current NSW sustainability education practice. It is important to understand whether the focus on knowledge-building and awareness activities is a result of a planned developmental strategy towards behaviour change, of a pragmatic view that these activities are the easiest to deliver, or of a belief that provision of information is the best way to achieve social change and changes in behaviour.
- Moving towards sustainability will depend on moving audience members further along the spectrum from knowledge and awareness towards specific behaviour change through specific skills development and direct influences on behaviour. Education and engagement activities which cover

specific skills, or the motivators and barriers involved in behaviours, are more likely to achieve sustainability outcomes in the community and inclusion of these should be encouraged across all education and engagement activities.

- Discussing and reflecting on values, and the development of capacity for problem-solving and critical thinking, in particular, enable future growth beyond simply behaviour changes, through the development of novel ideas and creative solutions to existing problems. They are given low weight by participants in this survey, which means that although they are nominally accepted as goals by at least half of participants, activities are not often planned to develop them, except in the education sector. These goals, along with implementation strategies, need to be clearly built into a range of programs and educators equipped with tools to do this.
- Encouraging participation and networking also requires more focus, with virtually none being placed on this by organisations at present. Like the development of capacity for critical thinking, encouraging cross-sectoral and cross-functional networking will support development of new ideas and creative solutions to existing problems. It also has the potential to bring more people and consequent effort into sustainability education and engagement.

4.4 Extent of activities

Drivers and barriers for delivering sustainability education

The understanding that education, engagement and training can contribute to sustainability is a key driver for the implementation of sustainability education within an organisation. This was the most commonly mentioned driver (by 45%). Nevertheless, the finding indicates that there is plenty of room for growth in the number of organisations choosing to engage in sustainability education, based on the value it can bring.

In the state government sector, systemic drivers (such as plans, policies and management directives) are more important than in other sectors. Those in state government were more likely to indicate that management directives (16% of first mentions, compared to 6% across all sectors) or policies, plans or standards (19% of first mentions compared to 5%) were the key reasons they engaged in sustainability education.

The existence of internal and external capacity, expertise or resourcing are moderate drivers to delivering sustainability education. Internal capacity and expertise was cited by 29% of participants as one of the top three drivers, indicating that around a third of organisations have developed skilled in-house staff who encourage the delivery of sustainable education. For a quarter of organisations, the existence of external resourcing plays a key role in the decision to provide sustainability education. It was particularly influential for local government, where 18% ranked it the primary reason for engaging in education activities.

External market demand is also a moderate driver, cited by 24% as a top-three driver, indicating that organisational priorities are to some extent influenced by the demand for education in the wider community or customers.

Access to external funding and resourcing is the key barrier to starting or increasing sustainability education and engagement activities. Just over half (51%) of participants cited this as a main barrier, with 30% ranking it the most important. The community sector was more likely to cite

funding, with over half of these participants ranking it the major barrier. The community sector was more likely to cite funding, just on half of these participants ranking it the primary barrier.

A perceived lack of leadership and support from within the organisation is also a key barrier to implementation of sustainability, particularly for local government participants, **as is lack of priority for sustainability among other education priorities**, particularly for the education sector. Almost a third of participants overall (32%) cited each of these as barriers.

A lack of understanding of the benefits that sustainable practices can provide to the organisation is a further significant barrier, cited by 28% of participants. This is an important finding, in that recognition of the value of sustainability education was also mentioned as a key driver by a large proportion of participants. This suggests that if the lack of understanding of the benefits of sustainability can be overcome in an organisation, those who recognise the value of education/engagement can drive significant change.

Implications

- The level of recognition of the value of sustainability education is clearly a key driver for education in many organisations and a key barrier in others, acting as an enabler when the value is recognised, but as a barrier when it is not. As such, there is potential for significant improvements in the penetration of sustainability education if its value is recognised more widely. Recognition should be encouraged through consistent, strong messaging, particularly around its value in conjunction with other activities, perhaps via the provision of case studies and mentoring. Demonstrating the organisational value of sustainability education and engagement may help to secure recognition and support by management for implementation of sustainability programs and for the staff involved.
- Organisations should be encouraged to build internal skills in sustainability education where possible, as this seems to be a key driver for around a third of organisations at present. Local government appears to be particularly driven by internal staff dedicated to education, and while it may be harder for other sectors to develop similar banks of skills, this should be encouraged. Building internal skills will also help to overcome several key barriers to undertaking sustainability education with organisations, namely: lack of leadership; lack of priority (both for sustainability and education); and lack of understanding of the benefits of education.
- The provision of external funding and other resources to encourage sustainability education should be continued. Not only is this key in driving organisations to undertake education activities when present, it is also the key barrier when absent. The promotion of such funding, where available, is therefore important in encouraging many organisations to undertake sustainability education, and clear communication of such support to all sectors should be undertaken.
- In local government, the development of management directives, policies and plans around sustainability education could drive more (and more planned) activity. This could be supported by case studies sharing the success that the State Government's policy and planning have had in driving sustainability education programs.

Methods of delivery for sustainability education and engagement

Face-to-face methods are the most popular forms of delivery of education and engagement activities. Talks, presentations, demonstrations and seminars were nominated by 74%, and practical workshops by 61%. Delivery methods that can be classified as engagement tools (as opposed to more

formal education) were slightly less popular but still used by a high proportion of participants. Print information was used by 68%, events by 53% and social media by 44%.

Target audience is the main consideration in the selection of delivery methods for education and engagement activities – it was mentioned by half of the participants. This corresponds with the wide range of delivery methods employed by many organisations in the sector and suggests that the facilitation of engagement of different audiences with varying levels of knowledge about sustainability issues is a priority for many organisations. A large number of other considerations were also mentioned by participants to varying degrees, indicating that **no single framework is used within the industry to assess which delivery methods are most appropriate.**

Implication

While face-to-face methods of education delivery are popular, and no doubt effective, the incorporation of other, less used media is likely to improve access to a wider range of audiences. Development and promulgation of a framework for assessing the most appropriate delivery methods may also improve the reach of some sustainability initiatives.

Key topic areas

The 2007–10 plan provides a number of environmental themes as education priorities: climate change; total water cycle management; air quality; biodiversity conservation; landscape management; pesticide and chemical management; sustainable production and consumption; and sustainable housing and transport. These might have been expected to be reflected in the topics participants cover in this survey.

Resource efficiency (in the form of energy efficiency, water efficiency and waste reduction) are the most common topics covered. Over 60% indicated that each of these is a main focus area, particularly significant in local government. These issues are all relevant to consumer and organisational audiences, although they are more likely to be communicated to internal audiences. They are also low-barrier activities that may be seen as easily targeted, the 'low hanging fruit' of sustainability behaviour change. **Overall, it appears that issues that are more easily communicated to wide audiences and which have simple behavioural outcomes are those most often communicated.**

While resource efficiency contributes to some of the plan's identified themes, the priority themes are less often identified as focus issues and there was substantial variation in rate of coverage between the themes. **Those in state government were more likely to mention the priority topics.**

Implication

It is likely that organisations and sectors are choosing to cover issues of most relevance to their business and audiences, whether chosen on the basis of environmental priority or resource use and savings, and that priority issues set on a state-wide basis are less meaningful.

4.5 Evaluating the status of sustainability education in NSW

There was strong support for the notion that education and engagement should be used to assist people and communities in moving towards sustainability. Almost all participants agreed that education and engagement are essential tools in developing sustainability, with 81% agreeing that they are of increasing importance to their organisation.

However, **there is a perceived lack of leadership in NSW sustainability education.** Almost two-thirds (61%) agreed that sustainability in NSW suffers from a lack of strategic direction, with a further quarter of participants neither agreeing nor disagreeing. Given that 65% stated that they were aware of the plan and 10% of those said they had not read it, **there may be a need to develop additional methods to communicate and demonstrate the strategic activities that are taking place.**

Support and advice from government was seen by 85% as important in their work.

There were relatively high levels of awareness of the 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% said that they had not read the plan.

Use of the plan was higher among those who were members of sustainability education networks. Those who were newer to the industry were more likely to have simply browsed the plan, or not used it, than their more experienced counterparts, potentially indicating that the plan received attention when released, but was not referred to on an ongoing basis by many in the industry.

Implications

- For any future strategic planning there is a need for more extensive and frequent communication of its goals and strategies, and demonstration of the progress made towards the goals.
- One potential approach is publication of an overarching set of goals at longer intervals, with more frequent (e.g. annual) engagement around specific strategies in order to keep them top-of-mind. Progress from the past year could be included with a revised set of goals. This would both address the problem of perceived lack of leadership and ensure that those who are new to the industry have a better chance of exposure to the strategy.

Learning for Sustainability outcomes and improving sustainability education

Given a choice, 60% of the 299 participants who indicated that they had heard of Learning for Sustainability chose to respond to some specific questions about the plans.

The strategic direction for sustainability education put forward in the Learning for Sustainability environmental education plan was considered to be the right one by most of these participants. The goals of the plan were strongly endorsed, suggesting an evolution rather than a revolution of the strategy is needed by the target audiences. The results indicate a strong commitment to the ideals of sustainability education, as almost 9 out of 10 participants responded that the active and informed participation of NSW people in creating a sustainable future was very important.

The goal with the highest level of perceived action among participants was that of integrating education with other tools and strategies to promote sustainability. Sixty-four per cent stated that there was a lot of or moderate action taking place in support of this goal. Enhancement of the reach and quality of education was also seen to be quite active, with 13% saying there was a lot of activity, and 43% moderate action. Both these goals can be achieved through direct action by educators in the sector, indicating that participants perceive 'on-ground' activity that meets these goals.

At the other end of the spectrum, people see **less activity for goals relating to engagement more widely in industry and the community.** The three goals with the lowest levels of reported activity were: increased activity and informed participation by NSW people; enhanced cross-sectoral

coordination; and improved access for all people in NSW to high quality education programs. **The community sector, in particular, appears to be slightly isolated in knowing about such activity.** They were more likely to report that they did not have sufficient knowledge to comment on activity taking place in relation to the goals, indicating that initiatives may not be reaching them effectively.

There does not appear to be a desire for a large range of additional goals for any future plan or for sustainability education and engagement generally. When asked to offer additional goals for any future governance model, only a small proportion of participants responded. Of these the most mentioned (at close to 20% for each) largely reflected quite specific needs among participants.

There appears to be a commonly held view that, while some effort is being made towards the goals of the plan, the level of action is neither extensive nor consistent across all goals. Overall, a relatively small proportion of participants indicated that they believed a lot of activity was being undertaken to support the goals of the plan; most indicated that they believed that moderate or minor activity was being undertaken towards each goal. No more than 15% of participants stated that a lot of activity was taking place on any of the stated goals.

Nevertheless, almost a third of participants (29%) stated the belief that increased action on sustainability is a positive outcome of Learning for Sustainability, while a further 22% nominated increased awareness of sustainability issues in the community. These findings show that, **while many in the sector do not see the amount of activity supporting the goals of the plan that they believe is necessary, the plan has had a positive effect in the community.**

Implications

- There is strong support for the goals of the Learning for Sustainability plan among those closely involved in sustainability education, and overall understanding of and support for the general concepts described in the plan is high.
- Increased focus in relation to implementation of any future strategic support for sustainability education in NSW should not be placed solely on ensuring that quality tools are developed and integrated, but also on ensuring that initiatives reach their intended audiences. Cross-sectoral coordination of sustainability initiatives is a key area for development, as is increasing access to sustainability education for all people in NSW.
- While the quality and integration of education with other tools is seen to be happening, increased or improved action is required in ensuring that programs and initiatives are being delivered effectively to their intended audiences, and that the delivery of the education is well coordinated.
- Efforts should be made to ensure that the community sector is fully engaged in the delivery of sustainability initiatives.

A: QUESTIONNAIRE

This appendix provides the questionnaire used in the Learning for Sustainability Survey 2011.

LfS Survey 2011

Welcome!

Thank you for coming to this survey on sustainability engagement in NSW. We appreciate your time and would like to offer you a choice of OEH publications at the end of the survey (see below).

In answering this survey, please think about the organisation through which you do the most environmental, sustainability or education related work as a basis for your answers. This may be as paid work or as a volunteer and you may work in the sustainability arena, the education/engagement arena or combine both in sustainability education.

Your organisation may be in any sector and at any scale, from a community group or your own 'sole trader' business up to a large business or government agency. However,

- for those working in individual schools and TAFEs, please use your specific school or college as your organisation, rather than the wider system
- for large organisations and state government agencies please use the level of region/division or directorate, rather than the organisation as a whole.

This survey asks you about sustainability and education/engagement activities separately and then asks some questions about sustainability education/engagement activities specifically.

If you would like background information about the survey see [here](#).

Publications available:

- *Who Cares about the Environment in 2009? A survey of NSW people's knowledge, attitudes and behaviours*
- *Does Your Project Make a Difference? A guide to evaluating environmental education programs and projects.*
- *Guide to using research in sustainability programs*

A. About you and your organisation

This section asks about your role in relation to sustainability and education initiatives in your organisation.

A1. Which sector best describes your organisation?

1. State government (excluding formal education)
2. Local government
3. Business and industry
4. Formal education: public
5. Formal education: private (independent or systemic)
6. Community: NGOs, community groups

A2 (If 1 at Q1) In which broad area does your state government organisation work?

1. Health
2. Environment/land and water management
3. Resources (energy, minerals)
4. Roads/transport/ports
5. Social/community issues
6. Economic/financial/issues
7. Business/trade/investment
8. Legal/judicial/administrative
9. Primary industry (agriculture, forestry, fishing)
10. Planning
11. Tourism/sport & recreation/cultural activities
12. Other (please specify)

A3. (If 2-6 at Q1) How would you best describe your organisation?

1. Professional or industry association
2. Industry or sector administrative body
3. Metropolitan council (fully urbanised, part of urban centre with more than 1 million people)
4. Regional town or city council (predominantly urban in nature)
5. Local council in rural-urban fringe area (developing LGA on margin of a large urban centre)
6. Local council in a predominantly rural LGA
7. Large business (over 100 employees)
8. Medium business (15-99 employees)
9. Small business (under 15 employees)
10. Preschool/early childhood centre
11. Primary school
12. Secondary school
13. TAFE or other post-secondary college
14. Private VET Provider/RTO
15. University
16. Environmental/sustainability education centre
17. Community group (e.g. conservation, sustainability, Landcare, climate action)
18. Not-for-profit organisation
19. Consultancy
20. Other (please specify)

A4. What is the postcode of your main workplace? If you move around a lot, please give the postcode for your organisation's base. _____

A5. What is your role in your organisation?

1. Senior executive/Principal
2. Director/Senior Manager
3. Team leader
4. Teacher/lecturer
5. Officer/program coordinator
6. Clerical/administration
7. Sole trader/partner
8. Other (please specify)

A6. How much of your work time is spent on activities related to sustainability?



1. Over 80%
2. 51-80%
3. 26-50%
4. 25% or less
5. Not part of my job

A7. (If 1-4 at QA6) Who are your sustainability initiatives **mainly** for?

Please select the one or two most important.

1. Staff in your own organisation
2. Individual customers/clients
3. Community
4. Students
5. Supply chain
6. Other companies/organisations
7. Other, *please specify*

B. Sustainability and your organisation

This section asks about perceptions and activities around sustainability in your organisation.

Some of the following questions ask you to think about activities internally and/or externally. **Internal** refers to processes and programs 'in-house', involving staff, operations, facilities, resource allocation, management, communications and IT. **External** refers to delivery of products, services or programs to clients, customers, students or community.

Note that, for the purpose of this survey, in formal institutions teaching/learning programs for students are '**external**'.

B1. What does 'sustainability' primarily mean in your organisation?

1. Environmental/ecological sustainability
2. Economic/financial/organisational sustainability
3. Social sustainability
4. Triple bottom line (ie environmental, economic and social aspects)
5. Quadruple bottom line (ie environmental, social, economic and governance/leadership aspects)
6. Other, *please specify*
7. Not used at all

B2. How important is sustainability in your organisation? Is it *very important, somewhat important, of minor importance, or Sustainability is not a consideration in our organisation or Not applicable*

1. In internal operations
2. Externally - in products and/or programs/services

B3 (Ask If 1-5 at QB2 for Internal and/or External) What are the main methods/tools your organisation uses in its sustainability initiatives/programs? Tick all that apply for *Internally* and *Externally*

1. Price/cost incentives/rewards
2. Price/cost disincentives/penalties
3. Education/training
4. Regulation
5. Management directives
6. Infrastructure provision/installation (eg recycling bins/pick-ups, energy/ water efficient appliances/fittings, transport alternatives, production methods/ equipment)
7. Motivation, engagement and awareness-building activities
8. Purchasing and procurement decisions
9. Strategies directed at organisational culture and values
10. Other, *please specify*

B5. (If 1-5 at QB2) Why does your organisation undertake sustainability initiatives/programs? Please number up to three reasons in order of importance. Number up to three in order of importance.

Customer/client/community/student demand

Staff interest
 Senior management/executive leadership
 Sustainability is part of our core values
 Cost savings
 Sustainability is part of our core business
 Concern about future resource availability
 Concern about health, well-being, environmental quality and quality of life now and/or for future generations
 Concern about climate change
 Concern about the natural environment, ecosystems & biodiversity
 Concern about environmental crisis events (eg extreme weather, oil spills, floods, fires)
 To gain a competitive advantage/peer recognition
 To align with state or national plans/strategies
 Need to comply with regulatory requirements
 Social access and equity reasons
 Availability of external funding and support
 Risk management
 Other, *please specify*

C. The language we use

C1. Which of the following are used to describe education/engagement activities in your organisation or sector? You can tick one or more options.

1. Education
2. Training
3. Teaching and/or learning
4. Capacity-building
5. Skills development / up-skilling
6. Engagement
7. Other, *please specify*
8. We don't do/consider any of these things

D. Education/engagement and your organisation

Questions in this section refer to any, education, training, teaching and learning, skills development, capacity building or engagement activities conducted in or by your organisation. Where these specifically relate to sustainability, they are abbreviated to 'sustainability education/engagement activities'.

Again, some questions refer separately to activities relating to **internal** operations (facilities, staff, resources, processes) and to **external** delivery of products, services or programs to clients, customers, students or community.

D1. Does your organisation conduct any education, training, skills development, capacity building or engagement activities?

1. No
2. Yes, for staff only
3. Yes, for our customers/clients/students/community, but there is no staff engagement/training
4. Yes, both internally for staff and externally for customers/clients/students/ community

If 1 at D1 skip to D12.

D2. How would you describe the extent of your organisation's education, training, skills development, capacity building or engagement activities?

1. Extensive – it is our core business
2. Significant – these activities are the main tools for attaining our objectives
3. Moderate – we include this/these as part of most of our programs/services
4. Occasional – we only use from time to time

D3. To what extent do your organisation's education/training/skills development/engagement activities address sustainability issues or outcomes internally and externally

1. Extensively – the main focus of our education/engagement programs
2. Significantly – integrated in many aspects
3. Moderately – found in some key areas

4. Occasionally – found in a few aspects of our education/engagement activities
5. Very little or not at all

If 5 at D3, skip to D12

D4. (If 1-4 at QD3) What are the main ways your organisation delivers its sustainability education/engagement activities. Tick all that you often use

- Talks, presentations, demonstrations, seminars, conferences
- Print information - brochures, posters, letters, fact sheets, newsletters, stickers, displays and signage
- Developing or delivering formal environmental or sustainability courses
- Developing or delivering formal education courses where sustainability is integrated with other subject material
- Practical workshops
- Mass media communications - advertising and publicity
- Using internet and social media
- Developing education resource kits/case studies
- Developing networks/peer learning/supporting “champions”
- Tours and/or field trips
- Mentoring
- Events e.g. fairs, festivals, field days
- Competitions and awards
- Other, *please specify*

D5 (If more than one ticked at QD4), What are your main considerations when choosing which of these methods to use for environmental/sustainability issues?

D6. (If 1-4 at QD3) What are the goals of your organisation's sustainability education/engagement activities overall? Please assign an approximate percentage to each of the following (if none, assign 0% to that area; total should equal 100%).

- Building knowledge, awareness and understanding about sustainability
- Developing positive attitudes towards sustainability
- Developing the skills needed for sustainable practices in the workplace or daily life
- Directly influencing people's adoption of sustainable practices or behaviours in the workplace or daily life
- Discussing and reflecting on values, visions for the future and/or current unsustainable systems
- Developing capacity for problem analysis and critical thinking
- Other, *please specify*

D7 What are the main issues or areas on which your organisation focuses its sustainability education/engagement? Tick all that apply.

1. Energy efficiency
2. Water efficiency
3. Green procurement
4. Sustainable building and landscape design
5. Climate change
6. Sustainability principles and concepts
7. Promotion of health/social well-being
8. Biodiversity / wildlife protection and conservation
9. Marine protection and conservation
10. Land management and rehabilitation (eg soil erosion and rehabilitation, riverbank and estuary restoration)
11. Water pollution and water quality
12. Air pollution and air quality
13. Protection and conservation of Aboriginal and/or European cultural heritage
14. Chemicals (eg appropriate use, handling and transport)
15. Sustainable transport
16. Waste management/reduction
17. Community development
18. Attracting / supporting viability in business and industry
19. Other, *please specify*

D8. (If 1-4 at QD3 for either internal or external) Do you consider there have been positive changes or progress towards sustainability **internally** or **externally** resulting from your organisation's sustainability education/engagement activities over the past few years?

Yes No

D9 (If yes at D8), What are the most important of these changes?

D10 (If yes at D8), How do you know your organisation's activities have achieved, or contributed to these changes?

D11. (If 1-4 at QD3) Why does your organisation undertake **education/engagement** activities as a means of addressing sustainability issues? Number up to three in order of importance.

- Education is our core business
- Senior management/executive leadership/policies
- Directives/policies from parent organisation (state, national or international)
- International/national and/or state policies, plans, standards
- National/state curriculum, competencies
- Organisational understanding of the contribution education/training/engagement can make to sustainability
- Availability of external funding, support, expertise or other resources
- Staff interest in education/ engagement
- Internal capacity and expertise i.e. dedicated education staff
- External/market demand for sustainability education
- Other, *please specify*

D12. What are the main barriers to starting or increasing sustainability education/engagement **internally** and/or **externally** by your organisation?

In the previous question you nominated two or more barriers to starting or increasing sustainability education/engagement internally and/or externally by your organisation. Tick all that apply and indicate the single most important.

- Lack of priority for education/engagement activities
- Lack of priority for sustainability amongst other education priorities (for funding, staffing, staff training)
- Insufficient leadership, direction and support from executive management
- Lack of understanding of the benefits to our organisation of more sustainable practices
- Lack of obvious demand from customers/clients/ students/ community
- Time poor staff
- Lack of staff interest
- Lack of regulation that would make it necessary
- Change averse culture / 'laissez-faire' attitude of our organisation and/or sector
- External funding and resources issues (not available/ ongoing, involve time-consuming/complex processes)
- Evaluation and evidence issues (lack of evaluation or learning by past experience, difficulty in measuring and demonstrating outcomes of sustainability education, lack of evidence of value to support business case)
- Co-ordination issues (lack of consistent approach within sector or by/from government)
- There are no barriers
- Other, please specify

E. Visions, planning and support

This section asks your views on progress in sustainability education generally in NSW and about the support you think is needed to enable greater sustainability education and engagement in NSW.

E1. Please indicate the extent to which you *strongly agree*, *agree*, *disagree*, or *strongly disagree* with the following statements, or are *not sure*, or the statement is *not applicable*.

1. Sustainability education/ engagement is becoming a more important part of the work or operations of my organisation
2. Sustainability education/engagement in NSW suffers from a lack of strategic direction
3. In my work, support and advice from government bodies is not important
4. Education/engagement is an essential tool for developing more sustainable communities

E2. Which of the following do you feel would be the best term(s) for describing sustainability education/engagement activities for your sector in the future? Number one or more options in order of preference.

- Education for sustainability
- Sustainability training
- Capacity-building for sustainability
- Skills for sustainability
- Sustainability education
- Learning for sustainability
- Other, *please specify*
- We don't do/consider any of these things

E3. Prior to this survey, were you aware of either of the previous NSW Government *Learning for Sustainability* environmental education plans (2002-05 and 2007-10)?

Yes No

E4. (If 1 at QE3) Have you read or used either of these previous plans? Tick all that apply (Note that 'the plan' as used below refers to either or both versions).

1. Not read or used the plan
2. I have browsed but not used it
3. I have read the plan in some detail but not used/applied it
4. I have read to plan to find out about overall principles and directions for environmental education in NSW
5. I have used it to frame required outcomes for my organisation/sector
6. I have used it to prepare grant funding applications
7. I have used it to support specific education planning, budgeting and activities within my organisation
8. I have/my organisation has contributed to reporting against the outcomes in the plan
9. Other, *please specify*

E5 We would now like to ask a few questions about the outcomes and results of the *Learning for Sustainability* Plans. Would you like to answer these questions?

Yes No

If No skip to E10

E6. The *Learning for Sustainability* plans identified some broad desired outcomes (characteristics) for NSW environmental/sustainability education. Please indicate the extent to which you think each is currently happening in sustainability education as relevant to your sector. You do not need to have read the plan to answer this question, but you may feel you do not have sufficient knowledge to answer – please indicate if it is *not happening at all, there is minor/ only a little activity, moderate level of activity, a lot of strong activity or you do not have sufficient knowledge to answer*

1. Education is being **integrated** with other tools and strategies to promote sustainability
2. There is **cross-sectoral coordination** of education programs
3. The quality and reach of programs are enhanced by **partnership and network activities** between education providers
4. All people in NSW have access to high quality education programs
5. There is **training, professional development and other support** for those developing and delivering education
6. **Research and evaluation** are being used to support effective education
7. NSW people are **active and informed participants** in creating a sustainable future

E7. Have you noticed any other positive outcomes (not covered in the list above or in your earlier answer about the impact of your organisation's activities) in relation to sustainability education, either generally or in your sector in recent years? If yes, please describe in the space below. No



No

Yes, please describe _____

E8. How important are these characteristics (desired outcomes from the previous *Learning for Sustainability* plans) to include in any future directions for sustainability education/engagement in NSW? Please indicate if it is *Not at all important, of some importance, very important, or you do not have sufficient knowledge to answer*

1. **Integration** of education with other tools and strategies used by organisations to promote sustainability
2. **Cross-sectoral coordination** of education programs.
3. **Partnership and network activities** between education providers which enhance the quality and reach of their programs.
4. **Access** for all people in NSW to high quality education programs
5. **Training, professional development and other support** for those developing and delivering education.
6. **Research and evaluation** to support effective education
7. **Active and informed participation** by NSW people in creating a sustainable future.

E9. Are there any other goals or outcomes not covered by this list that are important for increasing the extent and quality of sustainability education in NSW?

E10. In your view, would any of the following substantially help you or your organisation or sector deliver sustainability education/engagement activities in the next few years? *Yes, No or Not sure.*

1. A group/body that provides strategic direction and co-ordination to assist organizations with education/engagement to meet their sustainability objectives
2. A detailed plan, describing sustainability education objectives for NSW and listing priorities and outcomes for each sector
3. An education/engagement framework describing broad sustainability outcomes to which all organisations could contribute
4. An integrated sustainability policy which includes education/ engagement components along with other tools to achieve sustainability outcomes

E11 What other support, if any, do you believe would help your organisation or sector deliver sustainability education/engagement activities in the next few years?

E12. Are there any other comments you would like to make about any of the issues covered in this survey? Please use the space below

No

Yes, please describe _____

F. More about you

Finally, this section asks some more questions about you personally.

F1. When thinking about sustainability, which aspect is most important to you (in the sense that it motivates your work or personal life)?

1. Maintaining the natural environment, ecosystems and biodiversity
2. Economic/financial sustainability
3. Sustainability in human health and well-being
4. Stability and sustainability of social and cultural systems
5. Sustainability in our use of resources and their long-term availability
6. A sustainable planet for future generations
7. All these aspects are equally important to me
8. Other, please specify
9. I am not concerned about sustainability

F3. (If 1-3 at QA6 and/or QA9) You said earlier that sustainability initiatives or education/engagement formed at least a moderate part of your job (more than a quarter of your time). Approximately how long have you been working in this field? Choose only one column below.

	In sustainability initiatives generally, (little/no education focus)	In sustainability or environmental education/engagement	In education/engagement generally, (little or no focus on sustainability)
Less than one year			
One to five years			
Six to twelve years			
More than twelve years			

F4. Are you: Male female

F5. To which age group do you belong?

- | | |
|----------|----------|
| 1. 18-24 | 5. 55-64 |
| 2. 25-34 | 6. 65-74 |
| 3. 35-44 | 7. 75+ |
| 4. 45-54 | |

F6. Do you belong to any association(s) or network(s) connected with sustainability or sustainability education?

No

Yes, *please specify all that apply* _____

F7. Would you like to be kept informed about the results of this survey and any subsequent discussions on future directions in this area?

Yes. *Please provide your email address here (note that your email will not be used for any other purpose)*

No

Thank you for completing this survey.

Please specify your preference to receive OEH publications:

Links to pdfs on the OEH website for all the publications listed:

Yes. *Please provide your email address here if not detailed above*

No

Hard copy posted of one of the listed publications:

Yes *Please provide your postal address here (this will be provided to OEH only to send the publications but will not be linked to any survey responses)*

No

Please select your hard copy publication:

1. *Who cares about the environment in 2009? A survey of NSW people's knowledge, attitudes and behaviours*
2. *Does your project make a difference? A guide to evaluating environmental education programs and projects.*
3. *Guide to using research in sustainability programs*

B

B: OPEN-END QUESTIONS - CODING BREAKDOWN

This appendix shows the sub-codes used to produce the final coding for questions D5, D9, D10 and E11. Light green indicates the final code, while boxes below each green box indicate sub-codes.

D5: Main considerations in choosing delivery methods for education and engagement activities

(p.45)

Target audience
Target audience / analysis of audience / reflect client needs / interests / suitability for audience
Reach/accessibility to the community
Reach / accessibility to a mix of participants / difference sectors of the community
Type of media
Type of message to be communicated
Appropriate media
Type of event
Objectives of the project
Objectives / goals of project / achievement of desired outcomes
Appropriateness to situation
Appropriateness for problem / situation / topic / issue
Complexity of the issue - practicality / capacity to deliver
Resources - general
Resources - NFI
Budget/cost/funding
Cost / budget / value for money / funding
Government funding / grants
Staffing resources/expertise
Availability of staff / volunteers / human resources
Availability of senior staff / executive level staff
Staff skills / expertise
Training NFI
Time constraints
Time / time constraints
Regulations/organisational policies
Regulations / organisational rules
Past experience
Past experience
Practicality
Effectiveness of the media
Effectiveness NFI
Effectiveness of the communication / getting the message across / effectiveness of media
None / Nothing
Other mentions
Don't know

D9 - Most important progress resulting from sustainability education and engagement activities (p.48)

Policy
Internal - Development of policies / integration in strategic documents
Staffing
Internal - More staff dedicated to sustainability / establishment of sustainability teams / committees
Funding
Internal - Increased funding / budgets / resourcing for sustainability
Knowledge
Better understanding of issues / measures / regulations
Increased awareness / better understanding of sustainability
Increased knowledge / skills
Attitudes
Acceptance / shift in attitude / productive debate
Behaviour
Community gardens / sustainable gardening - use of worm farms, compost, mulch
Improved sustainability / sustainability practices NFI
Increased participation / engagement
Walking / riding bicycles / use of public transport
Outcomes - Internal
Better workplace systems / procedures
Carbon footprint / reduction of carbon emissions / green house gases
Improved outcomes / results
Internal - Action / adoption of / improvement of sustainable programs / sustainable practices
Internal Integration of sustainability across all or more aspects of the organisation
Smoke free policy
Sustainable fleets/reduce use of vehicles
Outcomes - Resource
Conservation of electricity / reduction in electricity usage
Conservation of water / reduction in water usage
Improved waste management practices / reduction / minimisation
Increased resource recovery / recycling
Internal - Improved staff awareness of sustainability / staff engagement
Outcomes - Environmental
Feral animal control / reduction in number of feral animals
Healthy waterways / improvement in water quality
Improved biodiversity / less environmental damage
Improved land management practices
Education delivery
Improved education - school / community / business / other organisations
Workshops / field days / training programs/ meetings
Structures and processes
Establishment of community working groups / participation processes
Improved sustainability networks
None / Nothing
Other mentions
Don't know

D10 - Methods of measuring organisational achievements (p.50)

Anecdotal or informal feedback
Feedback / anecdotal evidence from staff
Feedback / anecdotal evidence from the community
Formal evaluation or monitoring
Evaluation / monitoring of programs / measurement / recording performance / research
Evaluation through 'State of the Environment' report
Monitoring usage of resources / services / utilities / emission etc
Outcomes / results NFI
Participant / community surveys
Staff surveys
Increases in participation or requests for information
Increase in the number of people participating / engaging - external
Increase in the number of people participating / engaging - internal
Monitoring of / increase in the number of information requests / website hits
Progress towards KPIs / organisational objectives
Observed behaviour change
Changes in behaviour - community
Changes in behaviour - staff
Directly observed behaviour
Increased support from other organisations
Awards received
Awards - own organisation
Awards - partners /stakeholder organisations
Increased funding
Increased funding
Embedding of sustainability in policy or curriculum
Embedding of sustainability within coursework/curriculum
Embedding of sustainability within policy / documents / plans
None
Don't have any evidence
None / Nothing
Other mentions
Don't know / not answered

E11 - Other support required to facilitate sustainability education (p.64)

Resources - funding
Better access and equity of distribution of funding and resources for small / rural / regional /remote councils local governments
Grants / funding over longer timeframes
More funding / grants / financial
Resources - general
Resources NFI
Resources - staffing
Staffing - need for specific sustainability education staff
Staffing NFI
Communication/consultation/networks
Case studies / highlight effective successful programs / learn from what has been done
Greater ability for community input / engage the community / volunteers involvement
Improved communication / consultation NFI
Improved web / online communication
Increased networking opportunities / better understanding of other organisations
Increased promotion of sustainability to the public
More information / better information sharing / improved industry communication / government communication
Professional development/training
Accessible training / education / professional development / upskilling / workshops for staff
State support / coordination with local government
Support / training in sustainability across other industries
Strategic framework/coordination
Better strategic support / plan NFI
Cross sectoral co-ordination / approach / industry specific bodies
Improved education / engagement framework
Improved leadership / management leadership
Specific topic interests
Specific topic interests e.g improved infrastructure or access to National Parks
Government support/regulation/legislation
Government support / recognition / focus / make sustainability Government priority
Incorporating sustainability into regulations / legislation / Government policy / policies that support
None / nothing
Other mentions
Don't know

C: ENVIRONMENTAL EDUCATORS SURVEY, JUNE 2000

Detailed below are some findings from a survey of environmental educators in June 2000 that may be relevant to consider in the light of findings for this 2011 survey.

Background

Prior to the development of the first Learning for Sustainability plan, research was undertaken for the Environment Protection Authority (Community Education Unit) which included a survey of the professional needs of environmental educators in government (state and local) and community sectors in June 2000. The study focused on environmental educators in state and local government and a variety of non-formal settings. However some respondents were employed in both formal and non-formal education.

This mail-out self-completion written survey went to 1500 educators, with 361 responses: 49% male, 50% female, predominantly in the age ranges 26–60 years. The respondents were 30% from local government, 26% state government, 18% community groups, 6% consultancy, 4% environmental education centres and 3% tertiary education and 15% other. The majority (65%) belonged to one or more environmental associations or networks (including general environment groups, not limited to education associations/networks).

The findings of this study are reported in *The Professional Needs of Environmental Educators in the Non-Formal Education Sector; findings of a survey of NSW environmental educators' work, priorities and professional development needs*, June 2000. Unpublished. Environment Protection Authority, Sydney.

Summary of relevant findings

For the topics or questions detailed below, the page number for the appropriate section in this document is provided for easy reference. The 2011 sample profile by sector is on pp.5–6, the personal respondent demographics pp.10–14.

Time in industry, pp.11–12

Participants in the 2000 survey had a similar time in industry profile to the 2011 survey, with 36% involved for up to 5 years, 23% for 5–10 years and 39% for more than 10 years.

Barriers, pp.41–43

Responses regarding barriers encountered by environmental educators in their role, identified in an open question in 2000, were quite different to the findings for the closed question in 2012 regarding barriers to starting or increasing sustainability education or engagement activities, either internally and/or externally. In 2000 time constraints (16%) was the major barrier, closely followed by funding issues (13%). Also mentioned was a feeling of lack of support, whether organisational (11%) or in the broader picture of all stakeholders and the community (9%). Related to this appears to be some frustration at failure of the community to recognise their role in protecting the environment and accepting ownership of environmental problems (8%). However 20% could not identify any barriers (compared to 6% in 2012) and 6% did not answer the question.

Methods and approaches, pp.43–45

Some of the most commonly used methods in 2011 have changed little since the 2000 environmental educators' survey. Then, the top five were talks and presentation 69% print information 68% (with 13% separately nominating displays), workshop facilitation 45%, mass media communication 33% and training 31%. However in 2012 there is more emphasis on more interactive approaches. As well as substantially more use of workshops (61% in 2011 compared to 45% in 2000) and internet (44% including social media, compared to 6%), events, tours/field trips and networks/peer learning, not listed in 2000, in 2012 were nominated c. 40–50%.

Views about sustainability education in NSW, pp.57–58

Levels of agreement/disagreement with a series of statements are similar in 2011 to the 2000 environmental educators survey which found:

98% agreed "environmental education is an essential part of a preventative approach to environmental problems"

63% agreed that "environmental education in NSW suffers from a lack of strategic direction"

79% agreed that "environmental education is becoming a more important part of the work in my organisation"

82% disagreed that "in my work, support and advice from government is not important to me".



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